The Thirteenth Annual Texas Environmental Superconference



August 2 - 3, 2001
Four Seasons Hotel
98 San Jacinto
Austin, Texas



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THIRTEENTH ANNUAL
TEXAS ENVIRONMENTAL SUPERCONFERENCE:
"A MAGICAL MYSTERY TOUR"
Thursday - Friday, August 2 - 3, 2001

THURSDAY, AUGUST 2, 2001

8:00 - 8:45 **Registration** - *Ticket to Ride*

8:45 - 9:00 **Welcoming Remarks** - *Good Morning, Good Morning*
Jeff Civins - Haynes and Boone, LLP
Phil Haag - Environmental and Natural Resources Law Section, State Bar of Texas
Cindy Smiley - Air & Waste Management Association - Southwest Section
Mary Evans - Water Environment Association of Texas
Kim McLean - Texas Association of Environmental Professionals
Curtis J. Johnson - South Central Region of the Auditing Roundtable

Moderator: Carol Batterton, TNRCC

9:00 - 9:30 **Legislative Update** - *Please Please Me*
Mary Miksa, Texas Association of Business and Chambers of Commerce

9:30 - 10:00 **Water Quality Issues** - *Yellow Submarine*
Margaret Hoffman, TNRCC

10:00 - 10:30 **Water Resources** - *Octopus's Garden*
Jeff Saitas, TNRCC

10:30 - 10:50 **Break** - *Get Back*

Moderator - Tracy Hester, Bracewell, Patterson

10:50 - 11:35 **Representing the Public Interest** - *You Never Give Me Your Money*
Molly Cagle, Vinson & Elkins
Mary Carter, Blackburn & Carter, P.C.
Blas Coy, TNRCC OPIC

11:35 - 12:00 **Environmental Case Law Update** -
Ob-La-Di, Ob-La-Da
Mary Mendoza, Haynes and Boone, LLP

12:00 - 1:15 **Lunch** - *Come and Get It*

Moderator: David Cabe, Zephyr Environmental Corp.

1:15 - 2:15 **Air Quality** - *Here Comes The Sun*
Ramon Alvarez, Environmental Defense
Janis Hudson, TNRCC
Julian Levy, Zephyr Environmental Corp.
Jim Myers, RMT, Inc.

2:15 - 3:00 **Environmental Aspects of Energy Policy** - *Baby You Can Drive My Car*
Patricia Finn Braddock, Fulbright & Jaworski, LLP
Sally Jo Hahn
Renea Hicks

3:00 - 3:20 **Break** - *Piggies*

Moderator: Paul Sarahan, TNRCC

3:20 - 3:50 **Wetlands** - *Rocky Raccoon*
Casey Cutler, U.S. Army Corps of Engineers

3:50- 4:20 **Criminal Liability Concerns to the Environmental Professional** - *I Should Have Known Better*
Edwin J. Tomko, Akin, Gump, Strauss, Hauer & Feld, L.L.P.

4:20 - 5:15 **Innovative Programs (Brownfields, Clean Texas 2000)** - *Revolution*
David Frederick, Henry, Lowerre & Frederick
Kathy Montgomery, Texaco Inc.
Tamra-Shae Oatman, TNRCC
Becky Weber, EPA

5:15 - 6:00 **Cash Bar** - *Lovely Rita*

FRIDAY, AUGUST 3, 2001

8:30 -8:45 **Introduction** - *Good Day Sunshine*

Moderator: Sara Burgin, Brown McCarroll, L.L.P.

8:45- 9:15 **What to do When the Inspector shows up** - *Twist and Shout*
Tom Kearns, Shell
Linda Kuhn, Campbell, George & Strong

9:15 - 10:25 **Quantifying Environmental Liabilities** - *We Can Work It Out*
Vance Fairchild, Econ
Financial Mechanisms for Superfund Cash Outs - *Can't Buy Me Love*
Michael Hill, TRC Companies, Inc.
Removing Environmental Liabilities from the Bottom Line - *I'm A Loser*
Ken Pierce, Lehman Bros

10:25 - 10:45 **Break** - *Helter Skelter*

Moderator: Scott McCay, Texaco Inc.

10:45- 11:15 **Environmental Audit** - *Do You Want to Know A Secret?*
Curtis J. Johnson, Huffman-Broadway Group
Toni Toliver, TNRCC

11:15 - 12:00 **EPA/TNRCC Relations** - *I Want To Hold Your Hand*
Gregg Cooke, EPA Region 6
Robert Huston, TNRCC

12:00- 1:15 **Lunch** - *The Long and Winding Road*

Moderator: Lisa Gossett, University of Houston, Clear Lake

1:15 - 1:55 **Offsite Contamination** - *Technical and Legal Issues -Here, There & Everywhere*
Legal: Walt Shelton
Technical: Dan Mueller, Whitehead & Mueller

1:55- 2:20 **U.S./Mexico Relations** - *Besame Mucho*
Nelly Rocha, Baker Botts L.L.P.

2:20- 2:45 **Sustainable Development** - *Strawberry Fields Forever*
Mary Sahs, Sahs & Associates, P.C.

2:45 - 3:30 **Open Mike** - *Sergeant Pepper's Lonely Heart's Club Band*
Moderator: Commissioner John Baker, TNRCC
Karen Kornell, Office of the Attorney General
Margaret Hoffman, TNRCC
Chuck Mueller, TNRCC
Larry Starfield, EPA Region 6
Mark Vickery, TNRCC

3:30 **Closing Remarks** - *Hello Goodbye*

Ice Cream Sundaes - *Carry That Weight*

The Texas Environmental Superconference recognizes its sponsors:
State Bar of Texas, Environmental and Natural Resources Law Section
Air and Waste Management Association-Southwest Section
Water Environment Association of Texas
Texas Association of Environmental Professionals
Environmental, Health & Safety Auditing Roundtable

CLE: The conference has been approved for 11.50 Hours in Continuing Legal Education Credits, including 1.5 hour of Ethics, and for credit towards the continuing legal requirements for certification by the Texas Board of Legal Specialization in Real Estate Law, Administrative Law, and Litigation.

PARKING: Conference attendees receive a discounted parking rate of $4.00 in the Four Seasons Hotel garage, but parking is very limited. Information on parking alternatives can be accessed by visiting http://www.texenrls.org/. or http://www.haynesboone.com/calendr/superconference .

DRESS: Casual

2001 Planning Committee

Carol Batterton
TNRCC
Austin, TX

Clyde H. Burnett
Camp Dresser & McKee Inc.
Austin, TX

David B. Cabe
Zephyr Environmental Corp.
Austin, TX

Jeff Civins
Haynes and Boone, LLP
Austin, Texas

Ramon Dasch
TNRCC
Austin, TX

Jerry Davenport
Shipley, Jennings & Champlin
Tulsa, OK

Thomas Edwards
Office of the Attorney General
Austin, TX

Sarah Burgin
Brown McCarroll, L.L.P.
Austin, TX

Lisa Gossett
University of Houston - Clear Lake
Houston, TX

Tracy D. Hester
Bracewell & Patterson
Houston, TX

Curtis J. Johnson
The Huffman - Broadway Group
Richmond, TX

R. Scott McCay
Texaco Inc.
Houston, TX

Mary Mendoza
Haynes and Boone, LLP
Austin, TX

Manisha Patel
EPA Region 6
Dallas, TX

Nelly Rocha
Baker Botts L.L.P.
Dallas, TX

Mary K. Sahs
Sahs & Associates, P.C.
Austin, TX

Paul Sarahan
TNRCC
Austin, TX

Cindy Smiley
Baker Botts L.L.P.
Austin, TX

Larry Starfield
EPA Region 6
Dallas, TX

Andrew L. Strong
Campbell, George & Strong
Houston, TX

Mary E. Wilson
Stibbs & Burbach
The Woodlands, TX

A limited block of rooms has been reserved at the Four Seasons Hotel at a special group rate of $160.00 for a city view and $195.00 for a lake view (with an additional $5 charge for double occupancy). Reservations must be made by July 9, 2001. Please contact the hotel directly for reservations and request special rates. (Rates are effective through the weekend.)

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Austin, Texas 78701
(512) 478-4500

Environmental Bills Passed by the Texas Legislature in 2001

Mary Miksa
Texas Association of Business & Chambers of Commerce

HB 631 Turner, Sylvester Senate Sponsor: Whitmire
Earliest effective date: 9/1/01
Makes criteria for misdemeanor littering offenses more stringent; provides new category of littering offenses that would be state jail felonies.

HB 1027 Cook/et al. Senate Sponsor: Brown, J. E. "Buster"
Earliest effective date: 9/1/01
Allows the Texas Department of Commerce, with the assistance of the Texas Natural Resource Conservation Commission, to encourage the cleanup of contaminated property by certain corporations through the use of sales and use tax proceeds.

HB 1099 Chisum Senate Sponsor: Carona
Earliest effective date: 9/1/01
Changes the language of the law to enabled the Bureau of Radiation Control's regulations to keep up with changing technology in the laser field.

HB 2134 Chisum Senate Sponsor: Brown, J. E. "Buster"
Earliest effective date: 9/1/01
Streamlines the auto emissions testing program and allows local governments to create a low-income program for repair assistance and provide vehicle replacements.

HB 2518 Kuempel Senate Sponsor: Haywood
Earliest effective date: 9/1/01
Brings construction permit amendment applications under the same law as construction permit applications.

HB2687 Junell Senate Sponsor: Duncan
Earliest effective date: 9/1/01

- Extends the petroleum product delivery fee, but specifies a declining fee schedule. Based on the substitute, the declining rates for deliveries to smaller tanks are as follows:
  - $12.50 per delivery to tanks with capacity NTE 2,500 gallons in fiscal years 2002 and 2003;

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- $10 per delivery to tanks with capacity NTE 2,500 gallons in fiscal years 2004 and 2005;

- $4 per delivery to tanks with capacity NTE 2,500 gallons in fiscal year 2006; and

- $2 per delivery to tanks with capacity NTE 2,500 gallons in fiscal year 2007.

- Similar declining rate schedules are established for deliveries to tanks with greater capacity. The overall reduction from the comparable rates currently authorized by statute to the proposed rate schedule is as follows:

  - a 33 percent decrease in fiscal years 2002 and 2003;

  - a 47 percent decrease in fiscal years 2004 and 2005;

  - a 73 percent decrease in fiscal year 2006; and

  - an 89 percent decrease in fiscal year 2007.

- Continues the reimbursement program for clean up and remediation of petroleum storage tanks from September 1, 2003 to September 1, 2006. The reimbursement program would expire September 1, 2006. However, no reimbursement can be received for corrective action performed after September 1, 2005, and no claim received after March 1, 2006 may be reimbursed by the agency. Further, the substitute establishes additional deadlines for responsibility parties seeking reimbursement for clean up costs. The current requirement that the site be reported to the TNRCC on or before December 22, 1998 remains. However, now a complete site and risk assessment must be received by TNRCC by September 1, 2002; corrective action plans required by TNRCC for certain sites must be submitted by September 1, 2003; the action plans must be initiated and progressing on a timely basis by March 1, 2004; and, all requests for closures of sites not requiring a corrective action plan must be received by September 1, 2005.

- Deletes the requirement that collection of the petroleum product delivery fee be suspended when the unobligated balance in the Petroleum Storage Tank Remediation (PSTR) Account No. 0655 equals or exceeds $100.0 million.

- Increases the amount of fees that can be spent on the administrative costs of the Texas Natural Resource Conservation Commission (TNRCC)

  - from 6.7 to 11.8 percent of revenue collections during the 2002-03 biennium,

  - to 16.4 percent of revenue collections during the 2004-05 biennium, and

  - to 21.1 percent of revenue collections during the 2006-07 biennium.

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- Provides for an administrative fee equal to 2 percent of the amount of the petroleum products delivery fee collected to be deposited to the General Revenue Fund as a fee for service charge.

HB 2912 Bosse/et al. Senate Sponsor: Harris
06/15/01 See remarks for effective date
TNRCC Sunset bill.

- Provisions in HB 2912 remove the **grandfathered exemption** by requiring 30 year old facilities to obtain a permit. The bill requires a 50% reduction from pipeline facilities east of Interstate 35 and Interstate 37.

- The **name of the agency was changed** from The Texas Natural Resource Conservation Commission (TNRCC) to The Texas Commission on Environmental Quality (TCEQ). The name change will be phased-in between now and January 1, 2004.

- The **mission statement** of the TNRCC was changed to require consideration of, rather than encouragement of, economic development of the state. This clarifies the primary mission as the protection of the public health and environment.

- The **Public Interest Council** is now allowed to recommend legislative and regulatory changes as well as hire outside technical support.

- The bill clarifies the **executive director's role** in contested cases in which the executive director bears the burden of proof:

  – The bill requires the commission to specify factors the executive director must consider in deciding whether or not to participate, including the capacity and experience of the parties, the complexity of the issues, and staff resources.

  – The bill specifies the executive director's role as completing the record and not to rehabilitate non-agency witnesses or to assist a permit applicant in meeting its burden of proof unless it falls within a category specified by commission rule.

  – The bill requires the commission to summarize changes made in a permit application that are required by the executive director.

- TNRCC is required to develop and implement policies by specific environmental media to **protect the public from cumulative risks** in areas of concentrated operations. Priority will be given to monitoring and enforcement in areas in which regulated facilities are concentrated.

- The bill establishes a **performance-based regulatory structure** at TNRCC as follows:

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- The commission is required to focus on incentives that are based on compliance history and voluntary efforts to improve environmental quality.

- The commission is required to develop a uniform standard for evaluating compliance history and classifying a person's compliance history. They will use compliance history classifications in decisions regarding permits, permit amendments, modifications, suspensions, revocations, and inspections, and decisions regarding participation in innovative programs.

- The TNRCC is required to define at least three regulatory tiers, including ones for the poorest and best performers, and to place each regulated entity into a tier based upon compliance history. Different incentives and regulations apply to each tier.

• The bill expands the TNRCC's ability to investigate and respond to complaints:

- The commission is required to establish a process for educating the public regarding the commission's complaint policies and procedures.

- The commission is required to develop a process for receiving complaints by Internet.

- The commission must provide information and training to local officials regarding complaints.

- The commission must adopt an after-hours complaint response policy.

• Specific time frames for **grandfathered facilities** to become permitted and to reduce emissions have been established.

- Facilities in the East Texas region are required to submit applications by 2003 and reduce emissions by 2007.

- Facilities in the West Texas region are required to submit applications by 2004 and reduce emissions by 2008.

- The bill specifies a 50 percent reduction in emissions from pipeline facilities in the East Texas region and a 20 percent reduction from these facilities in West Texas.

- The permit exemptions granted to existing or planned facilities in 1971 are now repealed and all such facilities must now obtain a permit.

• The bill requires:

- Additional reporting and regulatory requirements in order to **reduce**

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unauthorized emissions from upsets, unscheduled maintenance, startup and shutdown activities.

- Corrective action plans to prevent the future occurrences of these emissions.

- Keeping a public record of all reportable emissions.

- The bill prohibits the storage, processing, or disposal of hazardous waste in a solution-mined salt dome cavern or a sulfur mine and deletes language relating to the showing of regional need in permitting hazardous waste facilities.

- The bill prohibits the future location or operation of a concrete crushing facility within one-fourth mile of a residence, school, or place of worship. It authorizes TNRCC to issue an emergency order to suspend operations of a rock crusher or a concrete plant operating without a permit and specifies a fine of $10,000 per day for illegal operation.

- The bill establishes a regulatory approach for dealing with runoff and managing waste from **animal feeding operations** or concentrated animal feeding operations associated with dairies in the Lake Waco watershed affecting the water supply for the City of Waco.

- The bill requires the commission to review **solid waste disposal permits** every five years to assess the permit holder's compliance history. It also requires that a municipal solid waste landfill that has not accepted waste for five years or more to go through the public hearing process necessary for a major permit amendment. Currently they are only required to obtain a permit modification in which public participation is limited. It also requires, after 2003, a permit for application of sludge to a land surface.

- The bill requires that advisory committees, workgroups, and task forces be composed of balanced representation of affected stakeholders and requires the tracking and reporting of those memberships. It also allows TNRCC to initiate enforcement actions based on information it receives from private individuals. It allows the use of information obtained by private individuals in agency proceedings, subject to certain reliability standards. It encourages enhanced use of the Internet by requiring TNRCC to post on its website information such as minutes of advisory committee meetings, pending permit and enforcement actions, compliance histories, and emissions inventories by county and facility name.

- The bill requires payers to submit all fees on the date the fee is due, whether it is billed by TNRCC or calculated and paid by the fee-payer. It limits the TNRCC's ability to adjust fee amounts due. It authorizes TNRCC to issue a notice of violation to a fee-payer for knowingly violating reporting requirements or knowingly calculating the fee in an amount less than the amount actually due and specifies penalties and interest.

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- The bill reinstates the collection of fees and the administration of the **petroleum storage tank program**, currently set to expire in 2002. It provides for the petroleum storage tank reimbursement program to expire on September 1, 2006. This will allow the continued remediation and reimbursement for the removal of leaking tanks. It will also require secondary containment for underground storage tank systems over the Edwards and Trinity Aquifers in Bexar and Comal counties.

- The TNRCC will enter into an agreement with the Texas Department of Health to jointly establish the **Texas Environmental Health Institute**. The Institute will examine ways to identify, treat, manage, prevent, and reduce health problems associated with environmental contamination.

- The TNRCC will **develop a research model** to serve its need for environmental research. We will utilize resources available from institutions of higher education, as well as other state and federal agencies. The intended result is an eventual research partnership between TNRCC and colleges similar to the arrangement between TxDOT and the state's colleges. Without good empirical data from good research, our investments are wasted.

- The TNRCC will only accept data and analyses for permitting, compliance, enforcement, and corrective action decisions from laboratories accredited by the National Environmental Laboratory Accreditation Program. The TNRCC can only accept data from on-site or in-house labs inspected by the commission.

- In general the bill is effective September 1, 2001. However, there are delayed effective dates for certain provisions.

HB 2997 Callegari/et al. Senate Sponsor: Lucio
Earliest effective date: 9/1/01
Requires the TNRCC to adopt a comprehensive program that provides regulatory incentives to encourage the use of environmental management systems by regulated entities, state agencies, local governments, and other entities as determined by the TNRCC.

HB 3040 Geren Senate Sponsor: Lucio
Earliest effective date: 9/1/01
In determining whether to issue a permit for a shipyard, allows the TNRCC to require dispersion modeling results predicting ambient concentrations of noncriteria pollutants on land-based off-property concentrations of air contaminants rather than over coastal waters of the state.

HB 3483 Ramsay Sponsor: Sibley
***Vetoed by the Governor on** 06/17/01*
Would have created a Clean Coal Technology Council to explore clean coal technologies.

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SB2 Brown, J.E. "Buster" House Sponsor: Counts
Earliest effective date: 9/1/01
Continuation of statewide water management legislation started with SB2 of 1999:

- Creates the Texas Water Advisory Council to consider and make recommendations on water policy issues;

- Creates the Water Infrastructure Fund (WIF) as a General Revenue account to provide financial assistance to local governments for the implementation of water-related projects;

- Creates the Rural Water Assistance Fund as a General Revenue account to provide assistance for water and water-related projects to rural political subdivisions and to finance an outreach and technical assistance program to assist rural political subdivisions in obtaining assistance through the fund;

- Requires the TWDB to develop groundwater availability models for major and minor aquifers and require the TWDB and the TNRCC to complete an initial designation of priority groundwater management areas for all major and minor aquifers of the state by September 1, 2005;

- Exempts certain items from the sales and use tax including: rainwater harvesting equipment; desalination equipment; brush control equipment; precipitation enhancement; and certain water and wastewater construction equipment.

- Requires that the TWDB and the Parks and Wildlife Department collect instream flow data and perform studies to determine the flow conditions of the state's rivers and streams necessary to maintain environmental and economic viability of bays and estuaries.

SB 5 Brown, J. E. "Buster" House Sponsor: Wolens
Earliest effective date: 9/1/01
Raises $133 million in new fee revenues to create a grant program for retrofitting diesel engines, and specifically does the following:

- Creates the Texas Emissions Reduction Plan to be administered by the Texas Natural Resource Conservation Commission (TNRCC), the Comptroller, and the newly created Council on Environmental Technology (TCET). The three agencies would be required to provide and manage grants and other funding for several incentive programs aimed at lowering emissions that impede air quality attainment under the federal Clean Air Act. The Public Utility Commission (PUC) would provide grants for a newly established energy program, and TCET would be responsible for establishing and administering a new technology research and development, which would include grants to support the development of emissions-reducing technologies.

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- Creates the Texas Emissions Reduction Plan (TERP) Fund as a new account in the General Revenue Fund to be administered by the Comptroller consisting of new surcharges and fees including:

  - 10 percent of the registration fee for truck trailers and commercial vehicles statewide;

  - 1 percent of the charge for each sale, lease, or rental of new or used construction equipment statewide;

  - 2.5 percent of the total charge for every retail sale or lease of year 1996 and earlier on-road diesel motor vehicles over 14,000 lbs.;

  - $225 fee on motor vehicles registering for the first time in Texas, except military personnel; and

  - $10 fee per commercial motor vehicle inspection.

- Allocates 72 percent of revenues in the Fund for the diesel reduction incentive plan to be administered by the TNRCC. Ten percent of revenues in the Fund would be allocated to the motor vehicle purchase or lease incentive program administered by the TNRCC and the Comptroller. The PUC would administer the energy efficiency program with 7.5 percent of funds. The TCET would administer a technology research and development program with an additional 7.5 percent of the funds. The remaining 3 percent of revenues could be used by the TNRCC, the Energy Systems Laboratory and the Comptroller of Public Accounts and the PUC for administrative costs.

- Specifies that the International Residential Code (IRC) be adopted as the energy code for single family construction and that the International Energy Conservation Code (IECC) be adopted as the energy code. The Texas Engineering Experiment Station's Energy Systems Laboratory (ESL) would be required to review and evaluate local amendments to the IRC and IECC. The ESL also would be required to develop energy savings estimates and set targets for each municipality in a near nonattainment area to develop and implement energy savings and weatherization programs to meet the targets. Additionally, the ESL would make materials available to the building industry and develop an accreditation program for energy rating services. The ESL would provide technical assistance to local jurisdictions. The bill would provide authority to the ESL to set and collect fees to offset costs for these activities.

- Amends the diesel fuel tax portion of Chapter 153 of the Tax Code to provide an exemption from the tax on diesel fuel for the volume of water, fuel ethanol, biodiesel, or mixtures of any of these elements contained in the final product.

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SB 324 Brown, J. E. "Buster" House Sponsor: Lewis, Ron
Earliest effective date: 5/26/01
Requires TNRCC to consider compliance history when processing applications for hazardous and nonhazardous disposal well permits; increases application fee.

SB 352 Truan/et al. House Sponsor: Gray/et al.
Earliest effective date: 1/1/02
Allows counties to contract with a public or private utility to collect solid waste service fees.

SB 356 Lucio House Sponsor: Hamric
Earliest effective date: 9/1/01
Requires the TNRCC to work with the Legislative Budget Board to create performance measures that assess he improvements in environmental quality achieved by innovative regulatory programs implemented by the commission.

SB 687 Brown, J. E. "Buster" House Sponsor: Chisum
Earliest effective date: 6/14/01
Provides for criminal penalties for the intentional or knowing discharge of waste or pollutants from a point source in violation of law, regulations, or permits.

SB 688 Brown, J. E. "Buster" House Sponsor: Chisum
Earliest effective date: 6/14/01
Allows an applicant to request a direct referral to a contested case hearing, and skip some of the public notice and comment process.

SB 749 Shapleigh/et al. House Sponsor: Haggerty
Earliest effective date: 9/1/01
certain facilities in the border region.
Allows the TNRCC to take and finance any action in Mexico, in cooperation with governmental authorities of Mexico, that in the opinion of the commission: (1) is necessary or convenient to accomplish a duty of the commission imposed by law; and (2) will yield benefits to the environment in this state.

SB 1146 Shapleigh House Sponsor: Chisum
Earliest effective date: 9/1/01
Requires state agencies with regulation over environmental issues to create a single information link, through the TexasOnline portal, to provide electronic access to information and services related to the agencies' authority and duties, including access to agency rules and other public information.

SB 1338 Ogden House Sponsor: West, George "Buddy"
Earliest effective date: 5/22/01
Allows the Railroad Commission to require the owner or operator of oil and gas equipment used in exploration, production, or disposal to: (A) determine whether the equipment contains or is contaminated with oil and gas NORM waste; and (B) identify any equipment determined to contain or be contaminated with oil and gas NORM.

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SB 1390 Brown, J. E. "Buster" House Sponsor: Kuempel
Earliest effective date: 9/1/01
Requires the TNRCC to issue an emergency order suspending operations of a rock crusher or a concrete plant that performs wet batching, dry batching, or central mixing and is operating without the necessary permit.

SB 1561 Shapleigh House Sponsor: Haggerty
Earliest effective date: 9/1/01
Allows the TNRCC to authorize the use of emissions reductions achieved outside the United States to satisfy otherwise applicable emissions reduction requirements.

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TEXAS ASSOCIATION OF BUSINESS & CHAMBERS OF COMMERCE
1209 Nueces • Austin, Texas 78701 • 512/477–6721 • 512/477–0836 fax • www.tabcc.org
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Legislative Update
by
Mary Miksa



Texas Association of Business
& Chambers of Commerce

Session Overview

- Late start, attention on redistricting
- Sunset review of Natural Resources Agencies
- Environmental activism gaining ground

TEXAS ASSOCIATION OF BUSINESS & CHAMBERS OF COMMERCE

HB2134, Voluntary Vehicle Retrofit/Retirement Program

- Affects nonattainment and opt-in counties
- Allows low-income repair/retrofit/retirement program
- Private entities may fund and receive SIP credits
- Participating counties get clean air grant priority

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HB2518, Air Permit Amendment Simplification

- Exempts permit amendments from notice & hearings requirement
- If total emission increase is under de minimis level, and
- No change in the character of the emissions

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HB2912, TNRCC Sunset

- Reauthorization or a flat bed truck?
- Reauthorizes agency, provides significant changes
- Performance-based regulation/regulatory tiers
- Citizen enforcement/complaints
- Executive director's role
- Lab certification/inspection
- Fee flexibility/consolidation

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Substantive Program Changes

- Grandfathered facilities
- Upsets reporting
- Petroleum storage tank changes
- Hazardous waste disposal in salt domes

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Substantive Program Changes (cont'd.)

- TNRCC becomes the Commission on Environmental Quality (TCEQ), in 2004
- Central focus of regulatory tiers is compliance history

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Definition Of Compliance History

- Orders, judgments, consent decrees
- 1660 or *No Findings* orders
- Final adjudications in other jurisdictions
- NOVs, unless found to be without merit
- Are violations major or minor? What about repeat violators?
- Good actions included?

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Lowest Performers Ineligible For:

- Flexible permits
- Regulatory flexibility
- Announced inspections
- Other innovative programs

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Grandfathered Facilities

- Requires all grandfathered facilities to get a permit
- Divides Texas into East and West Zones
- Dates for submittal of permit; installation of controls
  - East Texas dates: 9/1/03 and 3/1/07
  - West Texas dates: 9/1/04 and 3/1/08

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Types of Permits for Grandfathered Facilities:

- Existing Facility: 10-yr BACT/Flexible permits
- Pipelines: 50 % reduction (East), up to 20% reduction (West) in internal combustion engines
- Small business stationary sources
- Electric generation

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Upsets or Emissions Events

- Addresses upsets and unscheduled maintenance/startup/shutdown
- Scheduled maintenance--follow TNRCC rules for RQ
- Record-keeping/reporting track TNRCC rules
- Enforcement required against non-reporters

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Upsets or Emissions Events (cont'd.)

- Electronic reporting/database
- Excessive events (to be defined) triggers compliance action plan or permit authorization
- Chronic excessive emissions to be included in compliance history

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Citizen Complaints/Enforcement

- After-hours response
- Reflects current practices (files, status updates, etc.)
- Can initiate enforcement on private information-credible evidence
- Sanctions on citizens for falsifying evidence
- If TNRCC relies on citizen evidence to prove case, must meet protocols

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Other Provisions

- Executive director's role in hearings
- Develop policies to protect against cumulative risk; priority monitoring and enforcement areas
- Use of electronic reporting to reduce duplication
- Lab accreditation & required inspection of in-house labs
- PST program extended from 2003 to 2006 with reduced fee

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Sunset Effective Dates

- Early Operational and policy changes
- Early rulemaking (prior to 9/1/02)
- Mid-range rulemaking (by 9/1/02)
- Long-term rulemaking (after 9/1/02)
- Long-term operational and policy changes
- Public Interest Counsel Study

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HB2997, Environmental Management Systems

- Requires TNRCC to develop regulatory incentives for EMS
- Also must:
  - Integrate EMS into permitting and enforcement
  - Include EMS use in compliance history
  - Develop model EMS for small business/local government

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HB3121, Prop 2, Pollution Control Equipment Tax Exemption

- Initial purpose was to "gut" portions of the Prop 2 program, particularly the partial use exemption part
- As amended and passed:
- Requires TNRCC to establish standards by rule
- Requires TNRCC to give chief appraisers notice of determination
- Allows tax appraisers an appeal before commissioners

TEXAS ASSOCIATION OF BUSINESS & CHAMBERS OF COMMERCE

SB2 on Water Planning and Conjunctive Use

- Creates a state water policy council
  - Members are agencies, legislators and public
  - Recommendations on water policy initiatives
  - Consultation, not regulation
  - Will conduct 5-year review of river authorities

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SB2 on Water Planning and Conjunctive Use (cont'd.)

- Requires water use survey participation--permit hammer
- Requires regional plans to have conservation/drought
- Strengthens groundwater districts, provides penalty power
- Authorizes water transport fee if water goes outside district
- Creates water infrastructure/rural water assistance funds

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SB5, the Texas Emission Reduction Plan

- $133 MM fund million in new fee revenues to create a grant program for retrofitting diesel engines.
- Surcharges on off-road heavy equipment, on-road diesel
  - larger than 14,000 lbs.
  - registration of commercial motor vehicles
  - increase in "greensheet" fees on registering vehicles coming from outside of Texas

TEXAS ASSOCIATION OF BUSINESS & CHAMBERS OF COMMERCE

SB5, the Texas Emission Reduction Plan (cont'd.)

- Stationary source "rental" of NOX reductions
  - $75,000 per ton up to 25 tpy, 1/2 ton per day limit
  - Full compliance 5 years from original date of purchase
  - 80% reduction threshold, probably not technologically feasible
- Funds alternate emission reductions through grants

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SB5, the Texas Emission Reduction Plan (cont'd.)

- Diesel emission reduction (72%) (1-3 bullets below require at least 30% reduction from baseline emissions)
- Retrofit on-or off-road diesel*
- Repower (new engines) for on/off-road diesel*
- Add-on equipment*
- Purchase/lease of new on-road diesel
- Use of "qualifying fuel
- Other provisions

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SB5, the Texas Emission Reduction Plan (cont'd.)

- Repeals construction ban in SIP
- "clean vehicle" rebates (15% of new funds)
  - up to $5K
  - model years 2003-2007
- energy efficiency (7.5%)
- research and development/new technology
- (7.5%) IECC, International Energy Conservation Code, set as statewide code for industrial facilities

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What's next?

- Over 60 rule packages for implementation at TNRCC
- Twice as many as after last session
- Many packages, like HB2912 and SB5 require numerous rulemakings
- Some, like SB5, have very short implementation schedules--Sept. 1, 2001
- Interim legislative study requirements for:
  - public interest counsel
  - water policy (financing, conveyance, etc.)

TEXAS ASSOCIATION OF BUSINESS & CHAMBERS OF COMMERCE

Mary Miksa

Mary Miksa is Vice President of Governmental Affairs for the Texas Association of Business and Chambers of Commerce, an association of 150,000 companies and 200 local chambers of commerce representing 1.2 million jobs in manufacturing, high technology, and service industries throughout the state of Texas. Ms. Miksa works with the Texas Legislature and state agencies on legislation, regulations, and public policy issues of interest to the member companies of the Association, chiefly dealing with environmental quality and electric deregulation. She also staffs the association's Environmental Committee, a nine hundred-member committee that develops policy and positions on environmental issues.

Ms. Miksa serves as the chairman of the TNRCC Compliance Advisory Panel, which oversees the agency's small business compliance assistance activities. Ms. Miksa served on the Texas Natural Resource Conservation Commission's (TNRCC's) CARE Advisory Committee, a special committee formed for the purposes of helping to create a voluntary program for additional air emission reductions among companies with "grandfathered facilities."

Prior to working for TABCC, Ms. Miksa was the Executive Director of the Texas Civil Justice League, a coalition of trade associations, law firms, individuals and municipalities, working on tort reform in Texas.

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Margaret Hoffman

As the newly appointed Deputy Director for the Office of Legal Services, Margaret Hoffman is responsible for the oversight and direction of all agency legal affairs. Her responsibilities include managing an annual budget of $6 million and 131 staff members in three divisions: General Law, Environmental Law and Litigation. These divisions provide essential legal support for over 2,800 staff at our Austin central office and 17 regional offices. This support includes legal counsel for a variety of issues including contract agreements, employment law, ethics, public information access, regulatory permits, environmental projects, agreed enforcement orders, special investigations, and litigation.

Ms. Hoffman began her career with the TNRCC as a staff attorney in 1994. In 1998, she was promoted Director, Environmental Law Division. Her outstanding work in negotiating with the Environmental Protection Agency to gain delegation of the National Pollutant Discharge Elimination System from the national to the state level earned her recognition as one of the TNRCC's ten Employees of the Year for 1999. Her professionalism, leadership and dedication reflect her goal of ensuring that the rules implemented by the TNRCC protect human health and our environment. She holds a Bachelor of Arts Degree in History and Political Science from Trinity University, a Juris Doctor from St. Mary's Law School, and a Masters of Law in Energy and Environmental Law from the University of Houston Law School.

Water Quality Issues:
Yellow Submarine

Margaret Hoffman*

In addition to the water quality policies established in the Texas Water Code, Texas agencies and governmental bodies administer federal water quality programs, both regulatory and voluntary, mostly in conjunction with similar or complementary state programs. For example, some nonpoint sources of water pollution are addressed by state agencies such as the Soil and Water Conservation Board (TSSWCB) and the Texas Natural Resource Conservation Commission (TNRCC) partially through the administration of grants and programs funded by grants from the federal government. Point sources - those that are traceable to a discrete outlet or conduit - are regulated by federal law through the National Pollutant Discharge Elimination System (NPDES).[1] Like the Texas Water Code,[2] NPDES provides for a permitting system that prescribes the manner and content of discharges into jurisdictional waters. NPDES was delegated to TNRCC in 1998, so both the state and the federal permits are now granted and enforced by the TNRCC through one single Texas Pollutant Discharge Elimination System (TPDES) permit. In addition to nonpoint programs and TPDES permitting, the state also participates in water quality controls for construction projects that involve federal permits for filling and construction in surface waters, protection for wetlands and other waters in the coastal zone, and watershed monitoring and planning.

WATER QUALITY STANDARDS

In the town where I was born
Lived a man who sailed to sea
And he told us of his life
In the land of submarines.

State water quality standards are the foundation for all surface water quality programs. All states are required to adopt them,[3] and to review and revise them at least every three years. In setting water quality standards, scientific and technical staffs attempt to portray the lovely conditions that existed in surface waters in the happy days before they were contaminated by human interference, so that regulatory agencies can attempt to re-create those pristine waters for the use and enjoyment of all who live and recreate there.

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* Deputy Director, Office of Legal Service, Texas Natural Resource Conservation Commission

1 The Federal Water Pollution Control Act, 33 U.S.C. §1301, et seq, is commonly known as the Clean Water Act (CWA). Specific provisions are customarily identified as sections of the CWA, rather than as sections of the United States Code. The NPDES program appears in Section 403 of the CWA, 33 U.S.C. §1413.

2 §26.121 (2000).

3 CWA §303(c); 33 U.S.C. 1313(c).

Standards consist of three parts:[4]

1. Designated uses for aquatic life, human recreation and public use. A use known to have been actually attained since 1975 or to be attainable in a body of water must be designated and maintained. Where actual and attainable uses of a segment are [11]known, they are specifically listed in the Appendices to the standards rules, and the segment is called a "classified segment." Because of the large number of surface water segments in Texas, many smaller or more remote waterbodies have not been studied sufficiently to determine their actual or attainable uses. For those, the state presumes uses; if the stream is perennial, high aquatic life and contact recreation are the presumptions.

2. Numeric and narrative criteria necessary to support the designated uses. Numeric criteria represent the concentrations of oxygen and other constituents that can be in the water while the designated uses continue undiminished. Narrative criteria describe conditions of the water necessary for continuation of its designated or presumed use. For example, under Texas standards one narrative criterion is that "there shall be no foaming or frothing of a persistent nature; another is that there shall not be excessive nutrients."[5]

3. An antidegradation policy. The antidegradation policy is a "safety net," which says in essence that independent of meeting the numeric and narrative standards, where the water quality meets the CWA "fishable, swimmable" standard, it will not be allowed to decline from that standard except under very limited circumstances requiring specific findings and decision making by the permitting agency.

Last year, TNRCC finished a triennial review and revision of its water quality standards by adopting amendments to the standards rules, Chapter 307 of Title 30, Texas Administrative Code. The revised standards take effect only after approval by EPA, which currently has them under review. Highlights of the revisions adopted by the commission include:

- Inclusion of habitat as a named part of aquatic life uses. The standards have for many years required vegetative and physical components of the aquatic environment to be maintained or mitigated to protect existing aquatic life uses. Procedures to protect habitat in permits for dredge and fill activities are specified in §404 of the Federal Clean Water Act and in 30 TAC Chapter 279 (relating to Water Quality Certification). The explicit statement that habitat is included in the aquatic life provision was added to reflect the nature of review that is conducted in the consideration of discharge permits, 401 certifications and coastal management plan reviews.

- Inclusion of seagrass propagation as a named water-quality use protected under the Texas Surface Water Quality Standards. The TNRCC, in conjunction with the General Land Office, Galveston Bay Estuary Program, Coastal Bend Bays and Estuary Program, and Texas Parks and Wildlife Department, sponsored the "Seagrass Conservation Plan" for Texas as a result of which TNRCC decided to add seagrass propagation to the standards to emphasize its importance as an aquatic life use.

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4 See 40 CFR §131.6.

5 30 TAC 307.4.

- Addition of "wetland water quality functions" as a category of water-quality related use to emphasize the connection between the standards and wetlands, which are designated "water in the state" by Texas statute.[6]

- Revision of the water quality standards for three segments based on the results of Use Attainability Analyses. A section of Sam Rayburn Reservoir, where the Angelina River enters the reservoir, was changed from high to intermediate aquatic life use for a small, newly created segment in the upper riverine portion of the reservoir. EPA disapproved this amendment and entered into an agreement with stakeholders for additional studies.[7] The Nueces River Tidal at Corpus Christi was changed from exceptional to high aquatic life use, and the lower Pease River is changed from high to intermediate aquatic life use.

- Inclusion of new provisions for temporary variances, clarifying how interim effluent limits are set related to temporary variances, and inserted a new provision for temporary standards.

- Revised definitions for terms such as "fecal coliform," "best management practices," "mixing zone," "surface water in the state;" added new definitions for terms such as "attainable use," "biological integrity," "*E. Coli*," "Enterococci," "existing use," "designated use," "pollution," "presumed used," "seagrass propagation," "significant aquatic life use," "stormwater," "stormwater discharge," "titdal," and "wetland water quality functions."

- Revised narrative provisions in the general criteria concerning toxic criteria applicability, salinity provisions, and the general provision to maintain dissolved oxygen for aquatic life categories.

- Amended the antidegradation policy to conform to EPA terminology referring to a "tier" approach, and clarifying antidegradation review procedures for wastewater, dredge and fill projects and other activities.

- Revision of toxic criteria to protect aquatic life, including the adjustment of criteria for dissolved metals as required by EPA.

- Revision of numerous toxic criteria to protect human health based on updated information on toxicity of specific toxic substances.

- Changed the indicator bacteria for contact recreation from fecal coliform to *E. coli* in freshwater and

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6 TWC §26.001(5).

7 See letters from Gregg Cooke, Regional Administrator of EPA Region 6, to Jeff Saitas, Executive Director of the TNRCC and to Gregg Cooke, Regional Administrator of EPA Region 6, from Carl M. Wright, General Manager, Lufkin Mill, Abitibi Consolidated, both dated June 21, 2001. In its critique of the Use Attainability Analysis that supported the commission's change in designation of the attainable use in the segment from high to intermediate aquatic life use, EPA indicated a preference for the redesignation of the dissolved oxygen criterion, as opposed to the traditional use redesignation. This is acceptable under the federal and state rules, but has not been used much, if at all, in Texas water quality standards analyses. See 30 TAC 307(2)(d) and 40 CFR 131.11.

enterocci in saltwater.

- Clarified the low-flow condition for applying acute toxic criteria in streams and the standards applicable to stormwater discharges.

- Updated procedures for assessing instream standards compliance and added new provisions for measuring biological integrity.

- Revised Appendices A-E to the standards to add and update site-specific standards for numerous waterbodies, in addition to revising aquatic life uses for three segments in Appendix A (as discussed above). An additional 103 sites were assigned aquatic life uses and criteria for dissolved oxygen in Appendix D, and an additional 15 sites were assigned site-specific toxic criteria in Appendix E. Criteria for total dissolved solids, chloride and sulfate were revised for numerous waterbodies in Appendix A based on additional instream data.

In conjunction with the proposal and adoption of amended standards rules, the commission also reviewed and approved a set of guidelines for their implementation in setting effluent limits in discharge permits, a document called Procedures to Implement Texas Surface Water Quality Standards (IPs). EPA has requested changes to the revised IPs.[8]

TOTAL MAXIMUM DAILY LOADS, THE WATER QUALITY MANAGEMENT PLAN AND THE CONTINUOUS PLANNING PROCESS

So we sailed up to the sun
Til we found the sea of green
And we lived beneath the waves
In our yellow submarine.

Having determined, through the water quality standards process, the historical condition of our waters in the glorious past, water quality programs next seek to find those waters again by regaining past conditions. That quest - to find the pristine sea of green - is the goal of the CWA. Federal requirements for attaining and maintaining a state's water quality standards in surface water that is under the jurisdiction of the federal government are found throughout the CWA. One CWA program that is currently in the forefront of development and controversy due to its comprehensive influence on water quality policy is Total Maximum Daily Loads (TMDLs). Section 303 of the CWA not only prescribes the establishment of water quality standards, it also requires that they be implemented. In waters that do not meet these standards, limits must be set on the amount of each pollutant that is present in excess of the standard. This is the total maximum daily load. Setting and implementing the load is accomplished in three steps:

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[8] The revised Implementation Procedures were approved on November 15, 2000. Under the MOA between EPA and TNRCC on administration of the TPDES, the Implementation Procedures are part of the state's Continuous Planning Process, which must be maintained by TNRCC and approved by EPA under Section 303 (e) of the CWA. Both the old IPs and the revisions, as well as the EPA's comments on them and TNRCC's responses, are available on TNRCC's website http://www.tnrcc.state.tx.us/permitting/waterperm/wqstand/revisions.html.

1. Each body of water not meeting its standards for one or more pollutant is listed by the state;[9]
2. A total maximum daily load is set for each pollutant;[10]
3. The state creates a planning process for implementing the water quality standard through the TMDL.[11]

EPA approves or disapproves the list and the daily load. If EPA disapproves either, it has 30 days to substitute its own.[12] Upon approval, the TMDL becomes part of the state's Water Quality Management Plan (WQMP).[13] Planning for attainment and maintenance of water quality standards is reflected in the Continuous Planning Process (CPP).[14] Although the EPA "from time to time" approves the CPP, it does not have the authority or responsibility to rewrite those portions of which it disapproves.[15]

The CWA's primary goal is ecological restoration: "the objective of this chapter is to restore and maintain the chemical, physical and biological integrity of the nation's waters."[16] Two approaches were originally incorporated to protect and restore water quality impacted by point sources of pollutants: the technology-based approach, which aims to reduce pollution as much as is possible by identifying and requiring the best available treatment technology, and a water quality-based approach, which strives to reduce pollutant loading as much as necessary to reach specific numeric and narrative standards deemed appropriate to protect aquatic life, human health, and the environment.[17] Fifteen years after the original adoption of the CWA, Congress added a third approach limited to nonpoint source management, reflecting the realization that nonpoint sources of pollution require increased attention in order for the goals of the CWA to be met in all waters. Section 319 of the CWA sets a more flexible goal than the sections relating to point source regulation, and it also provides for more flexibility in attaining it.

EPA has used the term "watershed management" to characterize a number of programs including waste load allocations pursuant to CWA §303, watershed-wide permitting in the point source stormwater management program, the Clean Lakes Program, EPA-funded studies of point/nonpoint source pollution allowance trading, funding of state nonpoint source control programs under CWA §319 and the National Estuary Program. EPA has had difficulty integrating these programs into a single national mandate, at least

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9 CWA §303(d)(1), 33 U.S.C §1313(d)(1).

10 CWA §303(d)(4); 33 U.S.C. §1313(d)(4).

11 CWA §303(e)(1); 33 U.S.C. §1313(e).

12 CWA §303(d)(1)(D)(2), 33 U.S.C. §1313(d)(4).

13 Id.

14 CWA §303(e), 33 U.S.C. §1313(e).

15 CWA §303(e)(2); 33 U.S.C. §1313(e)(2).

16 CWA §101(a), 33 U.S.C. §1311(a).

17 CWA §301. *Compare* §302 *with* §§304 and 306.

partly because EPA has regulatory jurisdiction over some programs and not over others.[18] This problem became critical for EPA in the 1990s, when litigation was brought or threatened against it in over 30 states on the basis that EPA had failed to perform its duties under §303 of the CWA to list impaired waters and create Total Maximum Daily Loads (TMDLs) where states had not done so.[19] Since congressional action to confer this missing jurisdiction has not been forthcoming, EPA at first creatively interpreted its original TMDL regulations, and then creatively amended them, to give itself broad new authority over state water quality programs. This new federal authority is to be exercised under the mantle of overseeing 303(d) listing, TMDL development and implementation, and administration of NPDES.[20] Controversy over the rules has included debate not only about whether the CWA gives EPA the legal authority to so dramatically expand its direct jurisdiction over state water quality management, but also about whether a detailed, uniform and mandatory national model is really compatible with the flexibility inherent in a watershed-by-watershed approach.[21] The new rules were challenged in federal court by about 25 parties, including industrial and environmental groups and states.[22] In July, EPA filed a motion seeking to stay the litigation and the effective date of the new rules for at least 18 months, to enable the agency to review and revise the rule "to find a better way to finish the important job of cleaning our great rivers, lakes and streams."[23]

Water Quality Standards and TMDLs

The cornerstone of all CWA and Texas Water Code water quality management is state water quality standards. Section 303 of the CWA requires states to set them, but does not define what a water quality standard is. In regulations, EPA has defined a water quality standard as the combination of a designated use and the criteria necessary to attain and maintain that use.[24] A water quality standard consists of those two

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18 William Goldfarb, *Watershed Management: Slogan or Solution?*, 21 B.C. ENVTL. AFF. L. REV. 483, 491-92 (1994).

19 TMDL litigation has been so extensive and of such a degree of interest, EPA maintains a Web site devoted to it: http://www.epa.gov/owow/tmdl/lawsuit1.html.

20 Federal Register Vol. 65, No. 135 at pp. 43586 - 43670 (July 13, 2000). The rules were proposed in August 1999 and inspired extensive negative comments from state and local authorities, industrial groups and utilities. Over 30,000 comments were received on the proposals, and adoption of the final rules was accomplished as a procedural coup to circumvent congressional action to prevent it.

21 Federalism, in its traditional sense, was endorsed by President Clinton in an executive order that requires federal agencies, whenever possible, to avoid rulemaking that preempts state authority and to consult with states before doing so: Executive Order 13132, 64 FR 43255, 43256 (August 10, 1999). EPA expressed reservations about the wisdom of the President's Order.

22 *American Farm Bureau Federation v. Environmental Protection Agency*, No. 00-1320, D.C. Circuit, July 18, 2000

23 Press Statement of Administrator Christie Whitman, issued July 16, 2001. The full text of her statement is available on EPA's website http://www.epa.gov. Texas has intervened as a plaintiff in this lawsuit on two issues - the requirement that an implementation plan be submitted with each TMDL for EPA approval and the amendment to NPDES regulations to allow EPA to veto and reissue administratively continued state permits in impaired waters.

24 40 CFR §131.3(i).

parts, plus an antidegradation policy.[25] Following federal and state law, TNRCC sets water quality standards for the entire state by rules that are revised as appropriate and readopted at least every three years.[26] A water quality standard defines the water quality goals of a body of water by prescribing the uses for which the water is to be fit and by setting the criteria necessary to support those uses. Criteria are either numeric–a limit on the amount of a certain pollutant that may be contained in a quantity of water–or narrative–a prohibition on a certain condition in the water, such as color, odor or turbidity.

Standards serve at least two purposes. They not only establish the goal for water conditions, they also serve as the basis for water quality based regulatory and nonregulatory control of pollutants beyond the technology based levels of treatment required by sections 301 and 306 of the CWA. Wastewater discharge permits, best management practices for nonpoint sources, water quality monitoring, assessment and planning and TMDLs are all part of a single effort, which is to attain and maintain water quality standards.

The New Basics of TMDLs

As both the states and EPA have been rediscovering, the CWA does, in fact, create the blueprint for an integrated management program for watershed ecosystems.[27] Sections 303 and 319 create regulatory and nonregulatory approaches for point and nonpoint sources that emphasize attainment of water quality standards rather than technology. Section 319 was added to the CWA to address nonpoint source (NPS) management programs. Under §319, states prepare an annual report identifying waters not meeting water quality standards because of nonpoint source pollution, identifying the sources of that pollution, identifying BMPs for controlling these sources and describing programs for their control. States must have an EPA-approved management program for reducing pollution from nonpoint sources.[28] The programs are to be developed and implemented on a watershed-by-watershed basis to the maximum extent practicable.

Under §303(d), states identify waters for which technology-based effluent limitations on point sources have not been stringent enough to achieve water quality standards, and then establish the total amount of each pollutant of concern that the water can receive daily, set at the level necessary to achieve water quality standards for each waterbody identified. Under rules currently in effect, states submit their "303(d) lists" of water quality impaired waterbodies biannually for EPA review and approval, with priority ranking according to the severity of the pollution and the uses of the waters.[29] A TMDL must be developed for each pollutant for which each body of water appears on the list.[30] If approved by EPA, each TMDL is

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25 40 CFR §131.6.

26 Texas Water Quality Standards are contained in Chapter 307 of Title 30, Texas Administrative Code. See also TEX. WATER CODE §26.023.

27 Compare, for example, CWA §303, U.S.C. §1313 which requires states to inventory waters that are not meeting water quality standards and to create daily load allocations for them, with CWA §208, U.S.C. §1288 which requires the state water quality management plan to include those load allocations.

28 CWA §319(b); 33 U.S.C. §1329(b) (1998).

29 CWA §303(d)(1), 33 U.S.C. §1313(d)(1); 40 CFR §130.7(d). These sections were modified in amendments adopted as final rules on July 13, 2000.

30 CWA §303(d)(1), 33 U.S.C. §1313(d)(1).

incorporated into the state's Continuing Planning Process under §303(e) and used to calculate watershed waste load allocations to be incorporated into a watershed plan that includes individual water quality-based permit limitations.[31]

In response to the litigation, EPA embraced §303(d) as the device through which to configure state watershed management programs into a uniform, highly regulatory system prescribed by EPA. Beginning in the mid-1990's, EPA encouraged states to agree to abbreviated schedules for development of TMDLs and of TMDL implementation plans. Using the same tools of persuasion, EPA convinced states to list so-called "threatened" waters in addition to impaired waters described in §303(d) and to include waterbodies impaired only by nonpoint sources in their 303(d) lists.

Some of these tactics may achieve for some states the desired result of avoiding judicially imposed TMDL development schedules and judicially required EPA promulgation of 303(d) lists and TMDLs. In a suit in which the plaintiffs sought to compel EPA to promulgate TMDLS for the state of Oklahoma, the court granted EPA's summary judgment motion[32] based on the recommendation of the magistrate. The recommendation was based largely on two factors: Oklahoma had entered into a memorandum of understanding with EPA committing to establishing TMDLs for all segments on its 1998 303(d) list by 2010, and it had actually completed, and EPA had approved, 29 TMDLs before suit was filed and an additional 30 thereafter. In effect, the magistrate held that even though a state may have failed for years to perform its §303(d) obligations, once it assumes those duties and actually produces EPA-approved lists and TMDLs, the prior deficiencies are cured. Consequently, EPA has no obligation to assume performance of those responsibilities.[33]

EPA's quest for TMDL redemption resulted in the proposal and adoption of new regulations for 303(d) lists, TMDL development and implementation, and NPDES permitting.[34] As adopted, the rules delete some of the most objected-to features of the proposal, but they also codify much of the controversial guidance EPA has heretofore encouraged states to follow, as well as conferring on EPA some authority it

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31 40 C.F.R. §130.51, Section 130.2, Definitions, was substantially and substantively changed in the amendments adopted on July 13, 2000.

32 *Hayes v. Browner*, 117 F. Supp. 2d 1182 (N.D. Okla. 2000)

33 *Id.* at 35. Compare, however, the Special Master's report adopted by the court in *Sierra Club v. Clifford,* 1998 U.S. Dist. LEXIS 16031 (E.D. La. June 16, 1998) (which adopts Order of *Sierra Club v. Clifford*, 1998 U.S. Dist. LEXIS 15841, 47 ENV'T REP. CAS. [BNA] 1417 (E.D. La. Sept. 21, 1998)) in which the opposite result was reached on similar facts. The key distinction was one of statute. The *Hayes* suit was brought under the citizen suit provisions of the CWA, which must be based on the failure of EPA to perform a nondiscretionary duty, while the plaintiffs in *Sierra Club* also attacked EPA's actions and non-actions as arbitrary and capricious under the federal Administrative Procedure Act. They prevailed, at least in avoiding a summary judgment, on the APA claims. *Sierra Club* was recently reversed and remanded by the 5th Circuit on procedural grounds. *Sierra Club v. Browner,* 2001 U.S. App. LEXIS 15403 (5th Cir. La. July 9, 2001) The opinion appears to endorse the district court's substantive disposition of the case.

34 The proposals were published in Federal Register Vol. 64, No. 162 at pp. 46012 and 46058, respectively (August 23, 1999). See text appearing at footnotes 19 - 22, *supra.*

has not previously claimed under the auspices of the CWA.[35] For example, there are new definitions that substantively add to the Clean Water Act provisions:

- They revise the definition of TMDL to include an implementation plan, thereby not only adding the requirement that the state develop a plan, but also giving EPA the power to disapprove the TMDL because the implementation plan does not fit EPA's design. The result is that EPA would then establish both the daily load and the means for achieving it, within 30 days after disapproving the state submission.[36]

- They add definitions of impaired waterbody, pollution, pollutant, reasonable assurance and waterbody to codify EPA's existing guidance and, in the case of "reasonable assurance," to introduce a term foreign to the CWA. In one interesting example of peremptory reasoning, EPA proposed adopting a definition of "pollutant" that embellished the CWA definition to incorporate contaminants identified under the Safe Drinking Water Act. In response to comments that it might not have the legal authority to add elements to a statutory definition, EPA decided to omit the addition, but notes in its preamble "However, EPA interprets the CWA definition of pollutant to include, in most cases, drinking water contaminants that are regulated under ... the Safe Drinking Water Act."

- The definition of "load allocation" is clarified to expressly state that it must include pollutants from storm water runoff, groundwater, air deposition and all other natural and man-induced nonpoint sources. Correspondingly, "wasteload allocation" includes only point sources that are subject to permitting under the NPDES.

The new rules establish a more expansive 303(d) list and a more closely regulated listing regimen:

- An "impaired waterbody" is one where, regardless of the results of known measures of water content and chemistry, biological data show it does not attain and maintain water quality–that is, designated uses–regardless of whether the source of the impairment is known. According to the preamble "attain and maintain" means the waterbody must consistently continue to meet water quality throughout the waterbody. All impaired waterbodies must be listed.

- As newly revamped, the "list" includes four parts, only one of which requires TMDL development:

    1. Part 1 is the traditional or statutory list; added is the requirement that states submit with it a "prioritized schedule," newly subject to EPA disapproval. Part 1 waters must get TMDLs on the approved schedule. Priorities are no longer expressed as high, medium and low.

    2. Part 2 is waterbodies impaired by pollution but not by pollutants. No TMDL required. To illustrate the difference, EPA gives the following examples of waterbodies that would not be on Part 2: "The discharge of copper from an NPDES regulated facility is the introduction of a pollutant into a waterbody. To the extent that this pollutant alters the chemical or

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35 EPA's fact sheet summarizing the adopted rules and their departures from the proposal is avaailable on EPA's website.

36 40 CFR §130.34.

biological integrity of the waterbody, it is also an example of pollution. ... Similarly, landscape actions that result in the introduction of sediment into a waterbody constitute pollution when that sediment (which is a pollutant) results in an alteration of the chemical, physical or biological integrity of the waterbody." Examples of Part 2 waters are given as those impaired by habitat alteration, impaired biologic communities and flow alterations.

3. Part 3 consists of segments for which a TMDL has been approved, but which has not achieved water quality standards.

4. Part 4 includes impaired waters that the state demonstrates will achieve standards soon. If standards are not attained in a Part 4 segment by the time the next list is due, the segment moves to Part 1.

- Lists are due every 4 years, the first one under the new rules on April 1, 2002. There is a procedure for amending lists in the interim to add or delete segments, subject of course to EPA disapproval. EPA notes that "these modifications to the list may be time consuming."

- Unless EPA approves a different schedule, the TMDL must be completed within 10 years from the date a segment is listed on Part 1.

The TMDL itself will be more complicated, including 11 mandatory elements, notably an implementation plan in detail prescribed by EPA in addition to the allocation of load and wasteload, specific effluent limits for all point sources, and allowance for future growth.[37] The implementation plan must contain "reasonable assurance" that standards will be attained by issuing NPDES permits and amendments "as expeditiously as practicable" for point sources and by nonpoint source management protocols meeting a four-part test: "they specifically apply to the pollutant(s) and the waterbody for which the TMDL is being established; they will be implemented as expeditiously as practicable; they will be accomplished through reliable and effective delivery mechanisms; and they will be supported by adequate water quality funding."[38] The implementation plan will be based on the goal of water quality standards to be attained and maintained within 10 years and for controls placed on nonpoint runoff within 5 years after the plan is approved.

Some new features proposed by EPA were not adopted. The proposed public petition process for listing and implementation plans, mandatory listing of "threatened" waters, mandatory priority status for segments with endangered species or drinking water sources, requirements for "offsets" from other permittees as a condition of issuance of new permits prior to TMDL issuance and EPA authority to "designate" agricultural and silvicultural sources as point sources and require them to obtain NPDES permits were dropped from the final rule.

However, the concurrent amendments to the NPDES regulations do require that permits issued in listed segments where a TMDL has not been established must include an explanation of how permit limits were derived for all pollutants for which the waterbody is impaired. Presumably, EPA means to make this a requirement for permits in all listed waters, not just those on the Part 1 list. Also, EPA did adopt the controversial proposal giving itself the opportunity to partially revoke NPDES delegation by withdrawing

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37 40 CFR 130.32 (July 13, 2001).

38 40 CFR 130.2(p) (July 13, 2001).

the state's authority to administratively continue expired permits in listed segments under some circumstances. This provision was added to 40 CFR 123.44, "EPA review of and objections to State permits," reflecting EPA's contention that it merely clarifies authority EPA has always had under the CWA to veto a proposed state-issued permit if it violates NPDES program requirements.

These new regulations are aimed at all aspects of the listing, TMDL and permitting processes, but probably most emphatically at the management of nonpoint sources, that explicit authority that has continued to elude EPA's grasp. Adoption may have been delayed until after the decision in *Pronsolino v. Marcus*,[39] in which a federal district court in California decided a direct challenge to EPA's listing a waterbody in California that is impaired solely by nonpoint runoff. Judge William Alsup answered the question that all waters are subject to §303(d), regardless of the source of pollution. Referring to the legislative intent of the CWA with regard to 303(d) lists and TMDLs, he wrote:

> No substandard river or water was immune by reason of its sources of pollution. The process was made just as mandatory for wild but ruined rivers as it was for urban-blighted waters.[40]

Most, if not all, states had already determined to list nonpoint impaired waters, either on their own initiative or after persuasion by EPA. The *Pronsolino* opinion continues in interesting fashion, in dictum that has inspired comment from opponents of the new regulations:

> Once the TMDLs were prepared, they were intended to be applied to point and nonpoint sources differently. As to point sources, the TMDLs were to be taken into account in further restricting effluent, under NPDES permits as authorized by Section 301(b)(1)(C). As to nonpoint sources of pollution, the TMDLs were to be incorporated into the continuing planning processes of the states. This conferred a large degree of discretion on the states in how and to what extent to implement the TMDLs for nonpoint sources. A state could even refuse to implement a TMDL, eschewing best management practices if it wished, although to do so might provoke EPA to curtail or to deny grant money to the state.[41]

Texas Statutes and Rules

Permit-by-Basin Rule

Within the context of the TMDL regulations, the combined NPDES and state permitting system and state and federal nonpoint source programs, TNRCC created its own comprehensive watershed-based management plan. Although much of the nation's remaining water quality shortfall has been attributed to nonpoint source runoff, there are still waterbodies that do not meet water quality standards due at least in part to point source discharges. NPDES regulations provide delegated states the impetus to implement water

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39 *Ponsolino v. Marcus*, 91 F. Supp. 2d 1337, (N.D. Cal. 2000), appeal pending.

40 *Id.* at 1356.

41 *Id.*

quality-based permitting in state-administered NPDES programs.[42] Watershed-based planning facilitates writing water quality-based permit limits. Under a watershed approach, fine tuning permit parameters for pollutants of concern in a particular watershed can be accomplished as appropriate in conjunction with strategies to prevent runoff.[43] TNRCC's TMDL strategy incorporates this design for listed waters and TMDL implementation plans.[44]

Texas has implemented basin permitting for point sources. The permit-by-basin rule was adopted by TNRCC on January 3, 1995.[45] It requires comprehensive evaluation of the combined effects of multiple permitted discharges on water quality within each of 23 designated watersheds or basins.[46] To the greatest practicable extent, the TNRCC requires that all industrial and domestic wastewater permits within a single river basin or watershed have the same expiration date. This rule applies to all permit applications—new, amended, and renewed—received on or after the effective date of the rule. It allows the TNRCC to balance its permit workload annually over a five-year period, and brings greater consistency to the permitting process.[47]

The rule reflects the hydrologic connection between major river basins and coastal basins. Permits are issued to coincide with the implementation phase of the five-year watershed management schedule. The TNRCC may, if necessary to achieve the watershed cycle, issue a permit for less than five years, but never for less than two years. When appropriate, permit expiration dates have been be changed to accommodate a three-year compliance period before water quality-based limits become effective.[48]

TMDL Implementation in Texas

TNRCC has formulated several methods for providing detailed information about the status of water quality around the state, including the State of Texas Water Quality Inventory Report, nonpoint source assessment report, the Clean Rivers Program basin assessment reports, and its electronic databases. Most water quality programs have historically focused on monitoring and assessment, and marginal emphasis has

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42 See, for example, 40 CFR §122.4(i).

43 WATER QUALITY 2000, Water Env't Fed'n, A National Water Agenda for the 21st Century, Final Report 37 (1992).

44 TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, CONTINUING PLANNING PROCESS, Series 6.

45 30 TEX. ADMIN. CODE §305.71.

46 See 30 TAC 305.71(b) for basins and expiration dates. See also TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, THE STATEWIDE WATERSHED MANAGEMENT APPROACH FOR TEXAS: THE TNRCC'S FRAMEWORK FOR IMPLEMENTING WATER QUALITY MANAGEMENT (1997) at 6-1 – 6-4 for discussion of basin management schedule.

47 TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, THE STATEWIDE WATERSHED MANAGEMENT APPROACH FOR TEXAS: THE TNRCC'S FRAMEWORK FOR IMPLEMENTING WATER QUALITY MANAGEMENT (1997) at 3-3 – 3-4.

48 *Id.* at 3-4.

been placed on documenting consensus-based management strategies for individual watersheds.[49] The current trend toward a comprehensive interpretation and implementation of §§303(d) and (e) is forcing local, regional, state, federal and international water resource management agencies to consider a much broader approach to point and nonpoint source pollution controls. A total maximum daily load is not merely a load allocation number obtained through a water quality modeling exercise.

TNRCC conceived and implemented a comprehensive, integrated listing, TMDL and nonpoint source program in 1997. As envisioned by TNRCC's plan, a TMDL is a process that will culminate in a quantitative assessment of water quality problems and contributing sources, and an implementation plan identifying responsible sources and specifying actions needed to restore and protect water quality standards.[50]

In a priority watershed, the TMDL will provide a pollutant allocation mechanism useful in coordinating local, regional, state, federal, and international actions to restore water quality. Allocations for point source pollutants can be incorporated as pollution limits in enforceable discharge permits. Allocations for nonpoint source pollutants are targets to be met, at lease initially, through cooperative agreements and incentives. In outlining appropriate management strategies and objectives, establishing implementation schedules, and identifying potential sources of funding, the TMDL provides critical direction for watershed management at the local and regional levels.[51]

One purpose of a TMDL is to provide a consistent reference document that presents a menu of specific management strategies and corresponding roles for those responsible for implementing water quality restoration and protection measures. TMDLs document sources of water resource impairment, pollutant load allocations, appropriate management strategies and objectives, implementation schedules, and potential funding sources for the management strategies.[52]

The objectives of the watershed management program in developing TMDLs are:

1. to implement a consistent methodology for selecting high-priority watersheds for early action under §303(d);

2. to adopt and revise, as necessary, a schedule for development of TMDLs for high-priority watersheds;

3. to establish consistent methods and means for identifying, evaluating, and selecting management alternatives and funding mechanisms to achieve point and nonpoint source pollution load allocations in priority watersheds; and

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49 *Id.* at 2-13.

50 *Id.* at 2-14. Currently TNRCC staff is in the process of drafting a fairly comprehensive revision of the Continuous Planning Process, one feature of which will be a detailed description of the process for creating and using TMDL implementation plans.

51 *Id.*

52 *Id.*

4. to establish a regular forum for continuing coordination with other agencies and organizations with management authority of point and nonpoint source pollution.[53]

In addition to these goals, the anticipated benefits of including TMDLs in a management strategy for the whole basin include the advantage of consolidation of multiple water quality program objectives and resources to focus on the development of TMDLs and implementation plans.[54] In HB 1283 the 76th Legislature amended the general permits statute, Water Code §26.040, to make it more feasible to create general permits targeted at specific pollutants and the industries discharging them in individual segments, watersheds or basins. HB 1283 added flexibility to the commission's ability to target discharges by size, content and location and to include procedural requirements that make it feasible for industries to avail themselves of general permits.

NPDES[55]

And our friends are all on board
Many more of them live next door
And the band begins to play

We all live in a yellow submarine

Most everyone involved in water quality control issues knows that after a long process of negotiation, TNRCC and EPA are finally on board together in administering the NPDES program. While TMDLs have replaced NPDES as the hot topic in most discussions of state-federal water quality management, the two are so interrelated that one really cannot be fully understood without exploration of their effects on each other. In watersheds where impairment results in whole or in part from point sources, NPDES permitting must be carried out to implement the TMDL, and to maintain the status quo until a TMDL is adopted and approved.[56] Consequently, permitting in a water body is impacted by the TMDL process as soon as the segment is added to the 303(d) list.

In recent months, the scope of the NPDES program, as well as other federal water quality jurisdiction, has been in the spotlight. On January 9, 2001 the United States Supreme Court issued an opinion that may sharply limit federal agencies' jurisdiction of intrastate waters under the Clean Water Act. In *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*[57] (*SWANCC*), the Court held that the Corps of Engineers' (COE) regulatory definition of "the waters

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53 *Id.* at 1-4.

54 *Id.*

55 The National Pollutant Discharge Elimination System, described in Section 402(b) of the CWA and 40 CFR, Parts 122-124, was delegated to TNRCC on September 14, 1998, after many years of negotiation.

56 40 CFR 122.4(i).

57 121 S. Ct. 675 (2001).

of the United States" is not fairly supported by the CWA insofar as it includes nonnavigable, isolated, intrastate waters.[58] Specifically, waters of the U.S. were defined by the COE to include:

> waters such as intrastate lakes, rivers, streams (including intermittent streams) mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.

This part of the definition of jurisdictional waters is called the Migratory Bird rule, and it is also included in EPA's regulatory definition of waters over which the jurisdiction of the NPDES and other CWA programs extend.[59] EPA has consistently applied the Migratory Bird Rule in determining whether a discharge requires a permit under NPDES.[60]

Soon after *SWANCC* was issued, EPA and the COE issued a joint statement concerning the effect of the decision, stating it is relevant "to any federal, state or tribal staff involved in implementing sections 402, 404, 311, and any other provision of the CWA which applies the definition of 'waters of the United States.'"[61] Under the agencies' interpretation of *SWANCC*, "staff should no longer rely on the use of waters or wetlands as habitat by migratory birds as the sole basis for the assertion of regulatory jurisdiction under the CWA." However, "with respect to any waters that fall outside of that category, field staff should continue to exercise CWA jurisdiction to the full extent of their authority under the statute and regulations and consistent with court opinions."[62]

Following *SWANCC*, the 5th Circuit issued its own opinion concerning the limits of jurisdictional waters under the CWA. *Rice v. Harken Exploration Co.*[63] concerns the reach of the Oil Pollution Act, which is part of the CWA.[64] Citing *SWANCC*, the court determined that "a body of water is protected under the Act only if it is actually navigable or is adjacent to an open body of

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58 Id. at 678, 682-83.

59 The COE's regulatory definition is found at 33 C.F.R. §328.3(a); EPA's at 40 C.F.R. §§ 110.1, 112.2, 116.3, 117.1, 122.2, 230.3, and 232.2.

60 COE and EPA have explained that this definition applied to waters which are or would be used as habitat by birds protected by Migratory Bird Treaties; or which are or wold be used as habitat by other migratory birds which cross state lines; or which are or would are used as habitat for endangered species; or used to irrigate crops sold in interstate commerce. 51 Fed. Reg. 41217 (1986); 53 Fed. Reg. 20765 (1988).

61 "Memorandum from Gray S. Guzy, General Counsel, EPA and Robert M. Anderson, Chief Counsel, U.S. Army Corps. of Engineers (USACE) to EPA and USACE Staff (January 19, 2001)."

62 Id.

63 Docket # 99-11229, opinion issued April 25, 2001.

64 33 U.S.C. §2701 *et seq.* (1990).

navigable water."[65] The holding turned substantially on the facts, especially the contention that pollution had seeped through groundwater into surface water. The plaintiffs alleged that oil had been discharged to groundwater and to intermittent streams on their property. The opinion reaffirms that groundwater is not "navigable water" covered by the CWA. As to the intermittent streams, the appellate court found that:

> there is nothing in the record that could convince a reasonable trier of fact that either Big Creek or any of the other intermittent creeks of the ranch are sufficiently linked to an open body of navigable water as to qualify for protection under the OPA.[66]

In interesting dictum, the opinion also notes that the 5th Circuit "has not yet decided whether discharges into groundwater that migrate into protected surface waters are covered under either the CWA or the OPA."[67] While EPA has not generally required NPDES permits for discharges into groundwater, it does include groundwater monitoring and protection practices in permits where the treatment facilities or other factors indicate migration to groundwater is possible.

Stormwater Permitting Program

Under the Memorandum of Agreement setting the groundwork for TPDES administration, TNRCC will assume responsibility for Phase I of the federal stormwater program as each NPDES general and individual permit expires.[68] That is, TNRCC will have the responsibility to issue the renewal permit and enforce it. Also, TNRCC will implement Phase II as it becomes effective. For Phase I, the first major project was the reissuance of the NPDES industrial multi-sector general permit, which expired September 29, 2000. The permit covers 11 categories of industrial activity.[69] The permit was adopted by the commission in June, 2001. It incorporates new regulatory provisions adopted by EPA in 1999. Primary is the concept of "no exposure." This is a form of permit in reverse, in which facilities that fall into the industrial categories covered by the permit regulations are exempted from the permit requirement, but only if they certify that there is no exposure of any industrial material or activity to stormwater. Specific shelters and practices must be used and certified to be used in order for the permit exemption to apply.[70]

Other aspects of the Phase I program include renewal and assumption of enforcement of the individual permits issued by EPA to 19 large and medium municipal separate stormwater sewer systems

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65 "*Rice v. Harken Exploration Co.*, slip opinion at p. 7."

66 Id.

67 Id.

68 The full text of the MOA can be found on the TNRCC website, www.tnrcc.state.tx.us. Follow the index to TPDES program assumption application.

69 They are described in 40 CFR 122.26(b)(14).

70 40 CFR 122.26(b)(14), as amended. See EPA preamble and regulations in Federal Register, Vol. 64 at pages 68782-68787 and 68838-68839 (December 8, 1999).

(MS4s). They began expiring last year. Also, the general permit for construction activities disturbing at least 5 acres will transfer to state administration when the NPDES permit expires on July 7, 2003. A 1999 amendment to Section 26.040 of the Texas Water Code makes it possible for TNRCC to issue general permits to replace EPA's Phase I general stormwater permits and to initiate required coverage under Phase II.[71]

Whether, or how, TNRCC will be able to reissue EPA's Phase I construction general permit may be affected by the outcome of a dispute between EPA and the U.S. Fish and Wildlife Service (USF&W). In an action announced July 25, 2001 USF&W informed EPA that its permit violates the Endangered Species Act by placing the endangered Barton Creek salamander in jeopardy of extinction. In order to avoid jeopardy, EPA must rewrite the construction permit to limit the effects of development in its critical habitat. Although state's are not subject to the same requirements as federal agencies when it comes to consultation with and direction from USF&W, an amendment to EPA's general permit before it expires might be binding on the state when renewing the permit. Further, EPA must approve the terms of any renewal permit proposed by the state, and must consult with USF&W on such approval.

TNRCC is required to have its initial Phase II permits in effect by December 9, 2002. Phase II is contemplated to be implemented almost entirely through the use of general permits that, like the Phase I permits, will employ best management practices, reporting requirements and public outreach rather than effluent limits in most cases. Phase II covers small MS4s, which include all MS4s that are not "large" or "medium" (operated by an incorporated city or a county of 100,000 population or greater) and that are located in "urbanized areas" as defined by the Bureau of the Census. MS4s are not limited to systems operated by towns and cities, but include those run by all public bodies created under state law. The rules define "regulated small MS4s" to include not only those in urbanized areas, but also those designated by the NPDES permitting authority. The permitting authority must develop a set of criteria and assess all MS4s located outside urban areas and serving populations of at least 10,000 with a density of 1,000 people per square mile, as well as those physically interconnected to a regulated MS4. The NPDES authority may also grant waivers to small MS4s whose discharges "do not cause, or have the potential to cause, water quality impairment."[72]

Phase II also covers construction activity that disturbs 1 to 5 acres. Permits must be available by March 10, 2003. This part of the program is contemplated also to be administered through one or more general permits, primarily employing best management practices, reporting requirements and public outreach. Waivers by the NPDES permitting agency are permitted if based on factors set out in the Phase II regulations. As in Phase I construction permits, the cornerstone is the Stormwater Pollution Prevention Plan, which must include structural and non-structural best management practices, erosion and sediment control and other practices for waste and runoff control.

401 COMPLIANCE AND CERTIFICATIONS

As we live a life of ease

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71 Amended rules have been adopted implementing §26.040, 30 TAC, Chapter 205.

72 40 CFR 122.26(c). The Phase II regulations are long and intricate. For a superficial overview, see EPA's series of fact sheets and publications related to stormwater located at **www.epa.gov/owm/sectstm.htm.**

Everyone of us has all we need
Sky of blue and sea of green
In our yellow submarine.

After agreement was reached on NPDES, the harmony between state and federal water quality programs was augmented by reaching a level of equanimity in the area of control over filling and channelization activities in state water. TNRCC and the Southwestern Division of the U.S. Army Corps of Engineers (Corps) have entered into a mutual written statement describing a newly consolidated, highly cooperative process for ensuring that activities permitted by the Corps in Section 404 permits will not result in violation of Texas water quality standards.[73] The new system is the product of year-long negotiations and mutual brainstorming, and is intended to maintain a high level of water quality standards protection while also making the process as efficient, uniform and transparent as possible for the participants and the public. Its hallmark is the introduction of a multi-tiered system for state review of §404 projects and its foundation is an enhanced system for sharing information between the two agencies.

Initially, there are two tiers of §404 activities designated, with the commitment to study further refinements to the system, such as identifying additional tiers. Tier 1 will consist of projects that affect, alone or in combination, up to three acres of wetlands or 500 linear feet of stream. For Tier 1 projects, the applicant will have the option to incorporate into its §404 permit a preset group of Best Management Practices (BMPs), designed by TNRCC to generally ensure substantial compliance with Texas water quality standards. If this option is taken, the application requires no individual TNRCC review, and the Corps' permit can be issued without TNRCC certification. If the applicant prefers to use other BMPs or to incorporate water quality controls otherwise than as specified in the Tier 1 checklist and materials, they may choose individual 401 review.

Tier 2 consists of all activities not included in Tier 1. Tier 2 activities will generally receive individual TNRCC certification review. In most cases, this review and certification will be expedited by early and comprehensive sharing of information between the Corps and the TNRCC. TNRCC will participate in the Corps' pre-permitting meetings and comment processes. Probably the most novel feature of the Tier 2 procedure relates to the cornerstone of §404 water quality review–the evaluation of the project in accordance with the federal 404(b)(1) guidelines. These guidelines are also the model for TNRCC's rules governing §401 certifications, found at 30 TAC Chapter 279. In the past, the Corps 404(b)(1) review and TNRCC's Chapter 279 review have progressed separately, requiring each agency to proceed from scratch. Under the new system, the Corps will conduct its review early and will forward its analysis to TNRCC for use in making the certification decision. In most cases, this change in function - from performing the full analysis to reviewing the Corps' analysis - is expected to save considerable staff time and effort, and result in quicker certification decisions. Amended rules have been proposed that implement the new procedures.[74]

CONCLUSION

While all these programs together may not yet have restored the collective sea to pure, pristine green,

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[73] Permits are issued by the Corps under Section 404 of the CWA to applicants whose projects involve filling waters of the U.S., subject to certification by the state under CWA §401 that the project will not violate the state's water quality standards.

[74] 26 Tex. Reg. 3370 (2001).

their implementers will continue the quest. In that collective sea, humans and aquatics alike,

We all live in our yellow submarine,
Yellow submarine, yellow submarine
We all live in our yellow submarine,
Yellow submarine, yellow submarine.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

FOR YOUR INFORMATION

Jeffrey A. Saitas, P.E.
Executive Director
Texas Natural Resource Conservation Commission

On June 20, 1998, Jeffrey A. Saitas was named Executive Director of the Texas Natural Resource Conservation Commission (TNRCC). In December 2000, Mr. Saitas was named to the Bush/Cheney environmental transition team, advising the new administration on the state of the environment and environmental issues facing the nation.

Prior to being named Executive Director, Mr. Saitas served as the Deputy Director of the Office of Air Quality (June 1995-May 1998). He has also served in various capacities in the Air Permitting Division.

Mr. Saitas holds a Bachelor of Science degree in Mechanical Engineering from the Georgia Institute of Technology and a Master of Science degree in Engineering from the University of Texas at Austin. He has received certification as a registered Professional Engineer in Texas. Mr. Saitas previously spent several years in various engineering positions in the oil and gas industry before joining the Texas Air Control Board, a predecessor agency of the TNRCC, in April 1989.

Telephone: (512) 239-3900

THE THIRTEENTH ANNUAL TEXAS ENVIRONMENTAL SUPERCONFERENCE

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Molly Cagle

This paper would not be possible without Angelica Navarro, law student extraordinaire, and her tireless editing efforts. Many thanks also to my colleague John Riley for sharing his HB 801 contested hearing experience.

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Molly Cagle

I. INTRODUCTION

Touted as a compromise between industry representatives and the environmental community, HB 801[1] promised great things to all sides. The environmental community, or protestants, received early notice and an expanded mechanism to improve public input. As a result of this enhanced public participation, applicants and the Texas Natural Resource Conservation Commission ("TNRCC") would receive issue resolution through the permitting process and contested case hearings would be simplified or avoided entirely. The goal to be achieved was better communication and understanding among the parties leading to better permits. This paper is a reality check on the public participation aspects of HB 801 and new legislation from the 77th legislative session.

Clearly, HB 801 and the TNRCC's implementing rules have increased the opportunity for public participation in the permit process. Early notice, public meetings, replies to response for comments, request for reconsideration of the initial decision of the executive director are new steps for the public to express its concerns about an applicant or an application. Thus, the protestants have benefited from their bargain. On the other hand, it is not clear that applicants have gained matching benefits.

Although HB 801 rules[2] have been in place for almost 2 years, the full impact of the rules has not been felt, particularly the provisions that were designed to simplify and expedite hearings. Because the rules apply only to applications for new and certain applications to amend existing wastewater, solid and hazardous waste and air permits declared administratively complete on or after September 1, 1999[3], very few cases have gone through the issue narrowing process and even fewer have gone through an expedited

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[1] Tex. H.B. 801, 76th Leg., R.S. (1999)

[2] The significant HB 801 rules are codified in 30 TEX. ADMIN. CODE Chapters 39, 50, 55 and 80

[3] Tex. H.B. 801, 76th Leg. R.S. (1999) SECTION 7. (a)This Act takes effect September 1, 1999. (b)The changes in law made by this Act apply only to an application to issue, amend, or renew a permit that is declared to be administratively complete on or after the effective date of this Act. An application to issue, amend, or renew a permit that was declared to be administratively complete before the effective date of this Act is governed by the former law, and that law is continued in effect for that purpose.

hearing[4]. The HB 801 process simply has not had time to reach full force. Even if there are HB 801 applicant benefits, those gains must be weighed against the practical consequences of the expanded process of public participation, particularly the inherent delays that the HB 801 procedure imposes on applicants.

The 77th legislative session brought additional opportunities for public participation in TNRCC proceedings, as the legislature specifically allowed for evidence gathered by members of the public to form the basis for enforcement action and removed the Executive Director as a mandatory statutory party in permit contested case hearings while limiting the scope of the Executive Director's participation. The altered position of the Executive Director will almost certainly result in a dramatic change on the face of some permit hearings. The fledgling HB 801 process did not go untouched, as the legislature revived the applicant's longstanding direct referral option that had been eliminated by the HB 801 rules.

II. HB 801-THEY GOT

A. Early Notice

Early notice of a permit application, published by the applicant and mailed by the TNRCC within 30 days of the date an application is declared administratively complete[5], was designed to be an informational and educational tool for local stakeholders and applicants. Theoretically, by informing local citizens that the application was on file and available for

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[4] *See e.g.*,

Company Name	Style of Case	Docket No.
Chaparral Steel Company	Air	SOAH Docket No. 582-01-0972 TNRCC Docket No. 2000-0889-AIR
Frontier Materials Concrete	Air	SOAH Docket No. 582-01-2303 TNRCC Docket No. 2000-1462-AIR and 1999-1526-AIR
City of Log Cabin	Municipal Waste Discharge	SOAH Docket No. 582-01-3360 TNRCC Docket No. 2001-0167-MWD
City of Bellville	Municipal Waste Discharge	SOAH Docket No. 582-01-3359 TNRCC Docket No. 2001-2324-MWD

[5] 30 TEX. ADMIN. CODE §§ 39.405, 39.413, & 39.418. These notices are in addition to applicable notice requirements in the underlying environmental statutes.

review at a local repository[6], applicants and potential protestants could begin early in their efforts to strike compromises and jointly prepare proposed permit terms to incorporate those compromises into better permits. Ideally, by the time the notice of the draft permit was published, the parties would have worked out many of their differences—the limited outstanding issues would be filed by protestants in response to the second notice, and thereby serve as the narrowed issues for affected persons. Public meetings under HB 801were encouraged as a way to enhance and foster communication by providing an open forum for neighbors to inquire about the applicant's proposed facility or change to an existing facility and exchange ideas on ways to make the operation more compatible with the surrounding communities.

In practice, however, early notice, at significant expense to the applicant, seems to merely serve as a first battle call for the opposition. Further, since the Commissioners determined that a contested case hearing request filed at the first notice and not reiterated following the second and later "notice of draft permit" is timely by definition, early notice has produced a dramatically expanded comment and hearing request period.[7]

B. Public Meetings

Public meetings have largely taken on a pep rally atmosphere of opposition providing no constructive input for applicants. In fact, at a recent seminar, a TNRCC permit writer was asked whether any public meeting that he had attended resulted in a comment or meaningful contribution from the public that persuaded him to alter the draft permit. After some thought, he replied that one applicant had found the opposition to a wastewater permit to be so substantial, it had moved the discharge point. Admittedly, this is a significant alteration, but not likely the type meaningful exchange envisioned by applicants in discussions regarding HB 801.

What public meeting have brought to applicants is expense and delay. On the cost side, whenever the agency determines that one or more public meetings is needed[8], the applicant is obliged to make and bear the costs of the necessary meeting arrangements. Halls must be rented and security,

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[6] TEX. WATER CODE §5.552(e); TEX. HEALTH & SAFETY CODE § 382.056(d); 30 TEX. ADMIN. CODE § 39.405(g).

[7] *See* the filings before the Commission and Commission determination in the matter of Chaparral Steel Company SOAH Docket No. 582-01-0972-TNRCC Docket No. 2000-0889-AIR.

[8] 30 TEX. ADMIN. CODE § 55.154 (c) (1999) (describes the nondiscretionary obligation of the Executive Director or the Office of Public Assistance to hold Public Meetings).

often required by the hall, arranged. Of course, the applicant has no idea and no easy way of determining whether 7 or 700 people will attend the public meeting, and attendance has varied that widely. Notwithstanding that there is not a requirement in the HB 801 rules to publish notice regarding the public meeting for all types of permit applications[9], many applicants voluntarily undertake that burden and expense as well. Furthermore, under the rules, an applicant may be required to sponsor more than one public meeting. At least one applicant was required to host two public meetings.[10]

Public meetings are not only expensive for applicants, they also may delay the processing of a permit application simply because of scheduling problems. However, coordinating schedules among TNRCC staff[11], protestant(s) and the applicant is only the beginning of the potential for delay in the public meeting process. Following a public meeting, the staff must summarize and respond to the comments submitted at the meeting. Because of the nature of public meetings and the open microphone, public meeting comments (in contrast to written comments) are typically many and varied.

Processing comments submitted at a public meeting requires substantial staff resources and accompanying delay. Perhaps most important from the applicant point of view is the TNRCC rule requirement that the comment period remain open until the conclusion of the public meeting(s).[12] If a decision to require a public meeting comes late or at the conclusion of the second notice period, comments may be received during the weeks that it may take to arrange the public meeting, not to mention the opportunity for comments at the meeting.

C. Additional Filings

HB 801 increased expenses are not merely associated with publishing notices and renting meeting halls, the new procedures require additional

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[9] 30 TEX. ADMIN. CODE §55.154(e) establishes a requirement that the text of the notice must meet the requirements of §39.411, but the rules do not require publication for all types of permits.

[10] Frontier Materials Concrete (TNRCC Docket No. 2000-1462-AIR and 1999-1526-AIR) was required to host 2 public meetings under 30 TEX. ADMIN. CODE § 55.154 (c) (1999) (TNRCC, Public Meetings). In that case, a member of the legislature who represents the general area in which the facility is located or proposed to be located requested that a public meeting be held. It was. Before the close of the comment period on the draft permit, a newly elected member of the legislature asked for a public meeting- and a second meeting was convened.

[11] This includes three separate groups at the agency: the Office of Public Assistance, the Public Interest Counsel and the Executive Director's staff.

[12] 30 TEX. ADMIN. CODE § 55.152 (b) (1999) (TNRCC, Public Comment Period).

filings by applicants and TNRCC. Although only TNRCC is required to respond to comments, applicants may find the exercise a useful or necessary prerequisite to have a voice in framing the issues for hearing. Motions for reconsideration also may warrant a response.

D. Delay

But all of the other negative aspects for applicants probably pale in comparison to all of the delay that the new HB 801 public participation has caused. A glance at two flow charts speaks volumes about the complexity and delay that HB 801 and its expanded public participation process have imposed on applicants. Figure 1 is a flow chart of the pre HB 801 process from draft permit through the contested case hearing through the expiration of the motion for rehearing. Obviously, a number of contested case matters that were tried before HB 801 were "off this chart" time-wise, particularly with respect to the hearing itself. Nevertheless, Figure 1 represents a typical case - about 40 days from draft permit finalization to close of the comment period; 30 more days to the Commission agenda; etc. The whole process ordinarily took slightly less than one year.

Figure 2 shows the HB 801 process. Now, it takes at least 200 days simply to go from draft permit to the Commission agenda. And that timeline relies on the unproven expectation[13] that the Executive Director can prepare and publish a response to comments within 60 days of the close of the comment period. Furthermore, Figure 2 does not reflect the additional time prior to the second notice that it now takes the Executive Director to prepare draft permits as the staff stretches and strains its resources under the demands of HB 801.

III. HB 801-WE GOT

In exchange for supporting this new process, applicants received three purported major benefits. First, hearings are now supposed to be made simpler by the Commission's narrowing of the issues.[14] Second, the Commission now instructs the State Office of Administrative Hearings ("SOAH") on the estimated time that the Commission believes the contest reasonably should require. As an out growth of relatively tight time frames

[13] Query: What remedy does an applicant have if the Executive Director does not meet the 60 day deadline?
[14] TEX. WATER CODE §5.556(d); TEX. HEALTH & SAFETY CODE §382.056(n); 30 TEX. ADMIN. CODE §§ 50.115(b) and 55.211(b).

being announced by the Commission, SOAH now launches the parties directly into the contest thereby eliminating the historic down time at the outset of a contested case.

A. Narrowing the Issues

The Commission is still in the formative stage in its role of narrowing the issues, with the General Counsel's office playing a major part in the task. Attachment 1 is a copy of a document laying out the issues identified from the comment record by the General Counsel in a wastewater permit contest and presented to the Commission at an agenda. To date, the Commissioners have relied on the General Counsel's prepared issue list to decide which issues are relevant and material[15], and thus should be sent to SOAH. As expected, and as forecast by Jim Blackburn and Mary Carter[16], certain cases do not lend themselves to narrowing the issues and protestants have responded by raising during the comment period every conceivable issue arguably related to the applicant, the application and the media in question:

> "From a practical standpoint, the biggest concern here is to protect issues. As a protestant, you want to be sure that all possible issues are raised in order to protect yourself later in the process."[17]

Also yet to be seen is whether the parties and SOAH stick strictly to the issues defined by the Commission. Discovery conducted after the issue list is set certainly could lead to the identification of new issues not recognized or apparent during the comment period.[18]

B. Expedited Hearings

Time frames imposed by the Commissioners have clearly set a new, hurried pace for contested case hearings as the Commissioners have referred air and wastewater discharge permit cases to SOAH with directives to return Proposals for Decisions in 4 to 6 month time frames. These schedules, as with the list of issues, also are subject to adjustment for due process and

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[15] 30 TEX. ADMIN. CODE § 50.115 (c)
[16] Blackburn, Jim and Mary Carter. H.B. 801 and Contested Cases: The Protestants Get Gonged. Texas Environmental Superconference (2000).
[17] Blackburn, Jim and Mary Carter. H.B. 801 and Contested Cases: The Protestants Get Gonged. Texas Environmental Superconference (2000), page 2.
[18] 30 TEX. ADMIN. CODE §80.4(c)(16).

constitutional reasons.[19] SOAH is clearly taking the Commissioners directives seriously and is making prefiled testimony the norm. Attachment 2 reflects the schedule set by a SOAH Judge in an HB 801 contested case hearing. The schedule was established a month before the preliminary hearing in a contested air permit case.

IV. HB 801 ADJUSTMENTS

Under the HB 801 rules, all cases with timely hearing requests had to wander through the Figure 2 maze in search of a ruling on affected person status, the issues and the deadline for concluding a hearing, with one exception. If the applicant, the Public Interest Counsel, the Executive Director and all timely hearing requestors agreed to a direct referral AND a list of issues to be heard AND the maximum duration of the hearing, a matter could be sent directly to SOAH.[20] Not surprisingly, given these extraordinary standards and the natural positions of these parties, no HB 801 applications have been directly referred to SOAH.

But, SB 688[21] has changed the law, and new rules on direct referral should be on their way. In recognition that the HB 801 public participation process can result in unproductive delays, the 77th legislature implemented a midcourse correction – namely, reinstating direct referral at the request of the applicant or the Executive Director[22]. The referral is automatic. The Commission was not given discretion on a direct referral request. With respect to timing, direct referral can be requested early in the process[23], and in fact, the preliminary hearing notice of a directly referred case can arguably run simultaneously with the second permit notice. As with pre-HB 801 contested case hearings, in a directly referred case, all statutory and regulatory requirements are at issue in the hearing. Furthermore, there is still an opportunity for public comment and the Executive Director must respond to public comment.[24]

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[19] 30 TEX. ADMIN. CODE § 80.4(c)(17).
[20] 30 TEX. ADMIN. CODE § 55.209(h).
[21] Tex. S.B. 688, 77th Leg., R.S. (2001)
[22] Tex. S.B. 688, 77th Leg., R.S. (2001) SECTION 3 TEX. WATER CODE §5.557. It is interesting to note that the power to direct refer a case has been extended to the Executive Director, apparently even for cases in which the Executive Director may not participate as a party. See discussion in section VI of this paper.
[23] "Immediately after the Executive Director issues a preliminary decision on an application under section 5.553, the commission . . . shall refer the application directly to the State Office of Administrative Hearings
[24] *See* TEX. WATER CODE § 5.557(c) requiring that the response to public comment be entered into the administrative record of decision on the application.

A decision by the Executive Director to alter a directly referred draft permit based on public comments could raise interesting issues down the road. Nevertheless, the direct referral route can save an applicant 100+ days in the process. For applicants who see little benefit in narrowing the issues, and who assume that SOAH will be following a more "energized" docket, SB 688 is the answer.

V. OTHER PUBLIC PARTICIPATION ISSUES

A. Use of Private Individual Evidence in Enforcement Proceedings

TNRCC's Sunset Legislation[25] provides new and interesting public participation opportunities and perspectives.[26] On the opportunity side, TNRCC was harshly criticized during Sunset hearings for its longstanding policy not to rely in any way on citizen evidence in any enforcement proceeding. HB 2912 changes that policy dramatically.[27] TNRCC should soon be proposing rules to establish criteria for evaluating the value and credibility of evidence of environmental problems submitted by a private individual to TNRCC for use in enforcement proceedings.

While using a citizen recorded video, say in an event involving alleged opacity violations, may not raise too many evidentiary problems or concerns, reliance on more complicated evidence gathered by citizens and citizens testifying as witnesses in contested enforcement proceedings presents sensitive problems for both the agency and the enforcement target. If the agency attempts to use citizen evidence but fails, the public will question the agency's competence. Any cross examination of a private individual, particularly a neighbor, in an enforcement case will be viewed as harsh, even if respondent's counsel approaches the witness with the lightest touch. No matter how citizens are involved and no matter what the outcome of the enforcement proceeding, the opportunities for criticism abound.

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[25] Tex. H.B. 2912, 77th Leg., R.S. (2001).

[26] Sunset amends §§5.176 & 5.177 regarding tracking and responding to complaints. The new procedures are likely to lead to further public participation in environmental enforcement

[27] Tex. H.B. 2912, 77th Leg., R.S. (2001), SECTION 1.24 of the bill amending section 7.0025 of the TEX.WATER CODE.

B. Executive Director's New Role in Contested Permit Hearings

Criticism of the agency also will likely be the end result of the Sunset requirement that TNRCC bow out of contested case hearings under certain circumstances.[28] During the Sunset process, citizens attacked the Executive Director's legal and technical staff repeatedly because of the general position asserted by staff at contested case hearings. Of course, that position was to support the draft permit prepared and endorsed by the Executive Director. TNRCC was accused repeatedly of being "in bed" with applicants and ignoring the public interest. The legislature responded to these accusations in the TNRCC Sunset bill.

In an attempt to address this public perception, the Executive Director's participation in contested case permit hearings will now be optional rather than required. TNRCC must by rule define the factors it will consider in deciding whether to be a party in a contested case hearing. Its rulemaking must allow for the consideration of the technical, legal and financial capacity of the applicant, the experience of the parties, the complexity of the issues and TNRCC resources. Even if the Executive Director elects to be a party in a contested case permit hearing, his role will be limited solely to providing information to complete the record.[29] The Executive Director is forbidden from rehabilitating a witness, unless the witness is a Commission employee testifying for the sole purpose of providing information to complete the administrative record. The Executive Director cannot assist in meeting the applicant's burden of proof, unless the applicant is eligible for assistance under the rules.

The irony, of course, in this change of status is that the Executive Director's staff likely will still be called as witnesses in contested case permit hearings. However, rather than being offered by the Executive Director, the applicant will call these state employees to the stand. If protestants concluded that these witnesses appeared to be in cahoots with the applicant when they were presented by the Executive Director's lawyers, imagine the public response when the applicant elicits direct testimony from those TNRCC employees.

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[28] Tex. H.B. 2912, 77th Leg., R.S. (2001), SECTION 1.18 of the bill, modifying Section 5.228 of the TEX. WATER CODE.

[29] Tex. H.B. 2912, 77th Leg., R.S. (2001), SECTION 1.18 of the bill, modifying Section 5.228 of the TEX. WATER CODE.

VI. CONCLUSION

HB 801 has indeed increased public participation in the hearing process. It has also increased applicant's costs, protestant's costs[30], lengthened the prehearing process and put a strain on the TNRCC resources. HB 801 may still result in simpler and expedited hearings, but it is too early to conclude that those modest goals have been achieved. After all, those goals are measured by length and stability of the process. Achieving the loftier goal of "better communication leading to better permits" is proving much more difficult.[31]

[30] Blackburn, Jim and Mary Carter. H.B. 801 and Contested Cases: The Protestants Get Gonged. Texas Environmental Superconference (2000), page 2.
[31] *See* attachment 3

Figure 1: Pre HB 801 Time Line

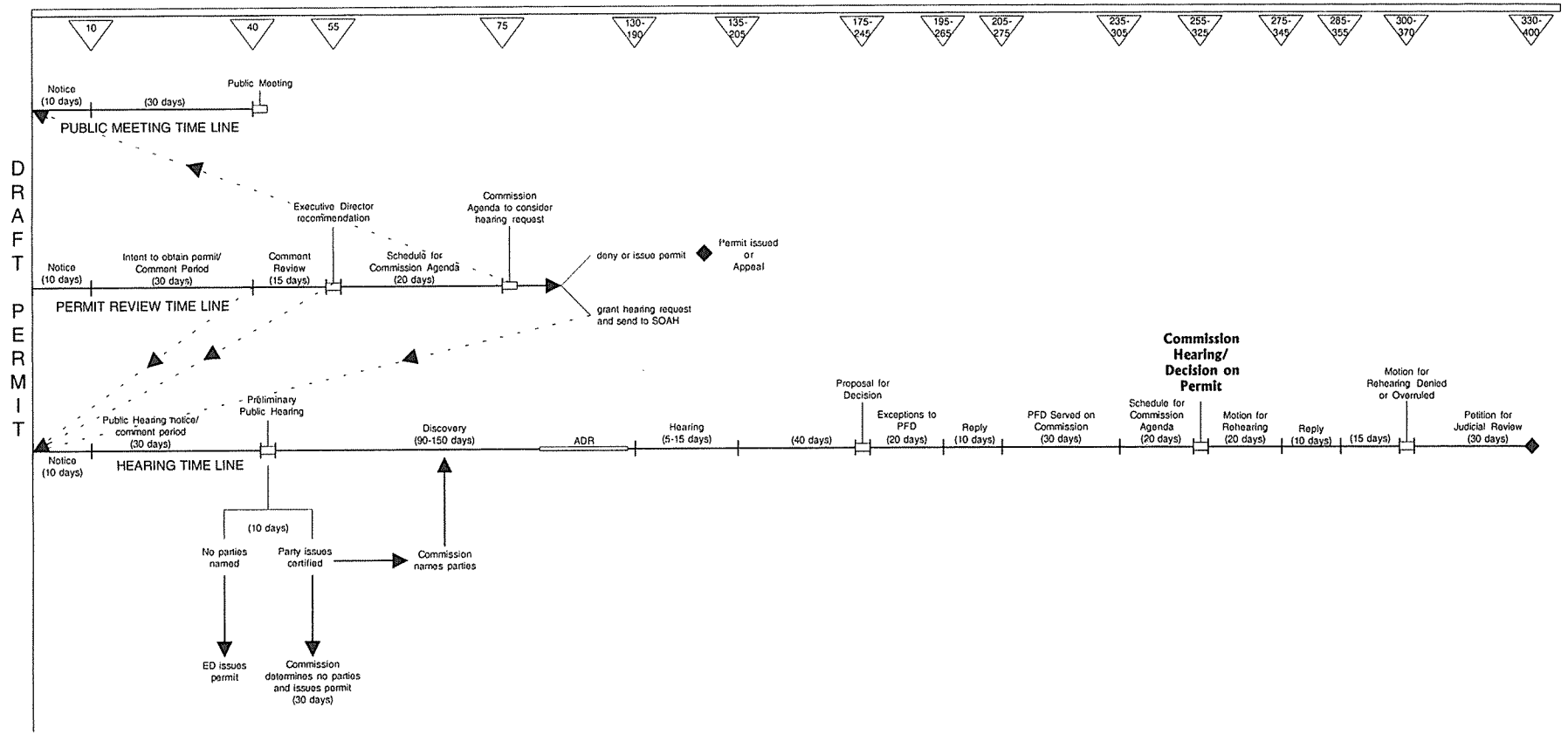
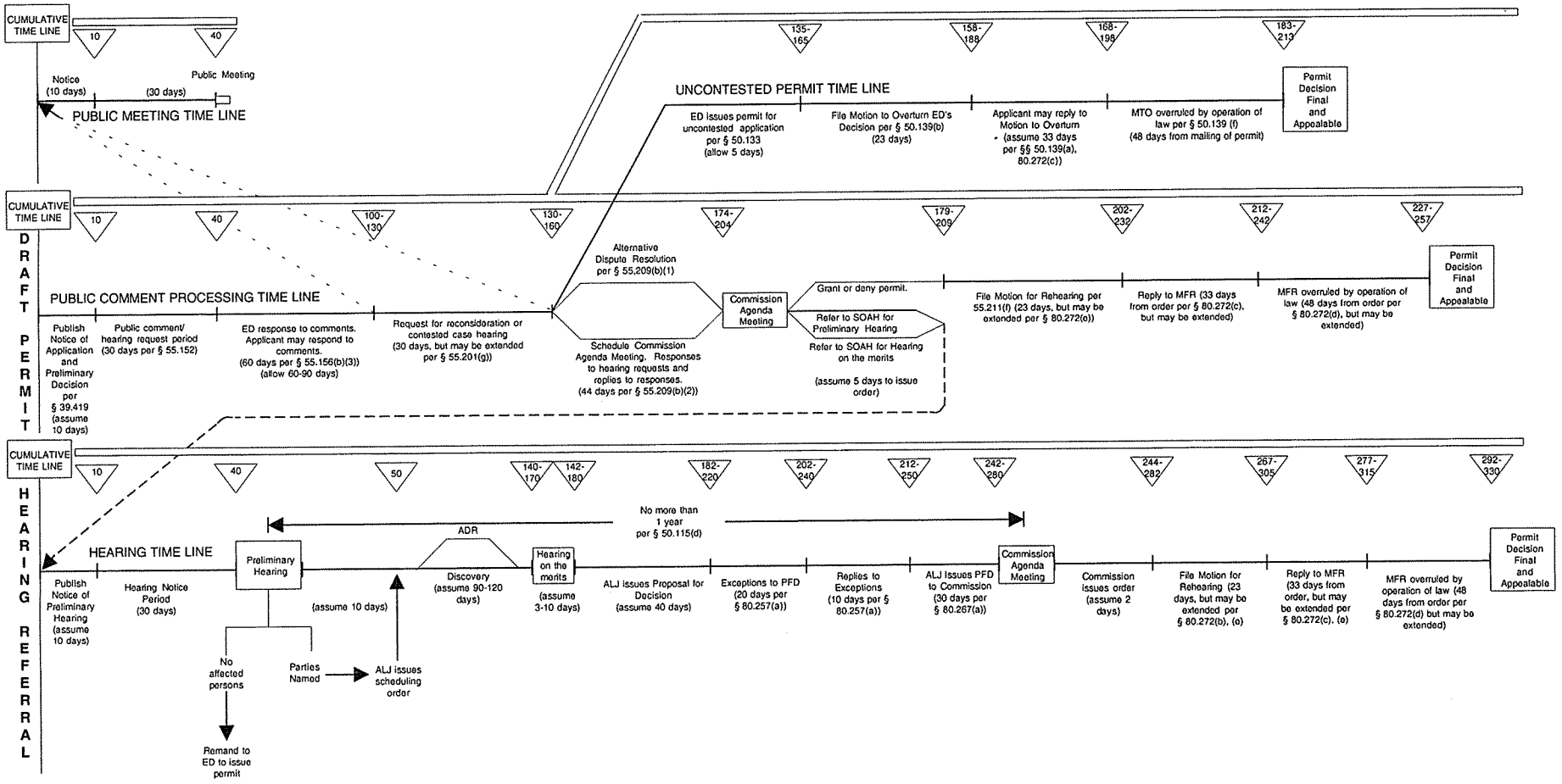


Figure 2: HB 801 Time Line



ISSUE TABLE	
Issue	**Refer to SOAH (Y or N)**
1. Whether Applicant's proposed wastewater discharges would adversely impact supplies of potable water.	
2. Whether Applicant's operations would cause nuisance odors.	
3. Whether run-off from the facility would affect Cedar Creek Reservoir.	
4. Whether the City of Log Cabin applied for or received a variance to locate their facility closer to a well than normally allowed.	
5. Whether the facility would have a detrimental effect on property values.	
6. Whether the TNRCC should impose more stringent controls than just the "bare minimum" sewage treatment requirements.	

ATTACHMENT 1

TNRCC Agenda: March 9, 2001

SOAH Order: March 19, 2001

DEADLINE/DATE	ACTIVITY
4/27/01	Preliminary hearing
5/25/01	Applicant to prefile direct case in writing, including all testimony and exhibits
6/1/01	Deadline for other parties to file written discovery of Applicant Other parties may begin deposing Applicant's witnesses
6/8/01	Deadline for Applicant to file objections to written discovery
6/15/01	Deadline for other parties to file motions to compel Applicant
6/18/01, 10:00 a.m.	Prehearing teleconference for AU to rule on any motions to compel the Applicant
6/22/01	Deadline for Applicant to respond to written discovery
6/29/01	Deadline to Depose Applicant's witnesses
7/6/01	Other parties, except Applicant and the ED, to prefile direct cases in writing, including all testimony and exhibits
7/13/01	ED to prefile direct cases in writing, including all testimony and exhibits
7/20/01	Deadline for Applicant to file written discovery of other parties Applicant may begin deposing other parties witnesses
7/27/01	Deadline for other parties to file objections to Applicant's written discovery
8/3/01	Deadline for Applicant to file motions to compel other parties
8/6/01, 10:00 a.m.	Prehearing teleconference for ALJ to rule on any motions by Applicant to compel other parties
8/10/01	Deadline for other parties to respond to written discovery Deadline for Applicant to identify rebuttal witnesses Other parties may begin deposing Applicant's rebuttal witnesses
8/17/01	Deadline for all depositions
8/28/01	HOM begins 8/20/24
9/10/01	Closing arguments
9/17/01	Replies to closing arguments
10/26/01	PFD

ATTACHMENT 2



ATTACHMENT 3



Molly J. Cagle
Partner
Administrative & Environmental Law Practice

One American Center
Suite 2700
600 Congress Avenue
Austin, Texas 78701-3200

512/495-8552 (tel)
512/236-3280 (fax)
mcagle@velaw.com

Practice Description

Molly counsels clients on virtually every kind of environmental matter and represents them before various agencies.

In the enforcement area, she has litigated and negotiated settlements for clients under the Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, and their state analogs. Molly's other major area of practice is permitting work before the U.S. Environmental Protection Agency and Texas Natural Resource Conservation Commission (and its predecessor agencies, the Water Commission and Air Control Board). She has successfully obtained environmental permits in a number of controversial wastewater cases for municipal and private sector clients; she also handles clean water cases, including those dealing with raw water supply. She is actively involved in Texas water planning efforts, including the development of rules and the granting of permits related to pumping of groundwater from the Edwards Aquifer.

With regard to air and solid waste, Molly has handled a variety of contested cases, including incinerator and BIF air and hazardous waste permitting. She also is working on water reuse issues related to the electronics industry on behalf of both supply- and demand-side clients. Molly has testified before the United States and Texas Senates, and has served as a testifying expert on environmental issues in a number of cases.

Representative Matters

<u>Environmental enforcement</u>

- As lead counsel, negotiated a settlement with the Texas Water Commission in a case involving the first administrative penalty sought under the Water Code
- Negotiated a settlement with the Texas Water Commission in a case involving the largest fine ever sought by that regulatory agency; the case concerned alleged water code, solid waste act, and emission violations, and required coordination with multiple state and federal agencies
- Retained as special settlement counsel to pursue a multi-agency settlement in a nationally known enforcement case in Louisiana

Permitting work

- Negotiated a multi-agency agreement relating to the inapplicability of certain pretreatment requirements, thereby allowing a client to implement process modifications without regulatory interference; these negotiations specifically involved the integration of the Electrical and Electronic Components Category pretreatment requirements with those for other industry categories
- Actively involved in the State's efforts to review and revise metal limits under the Texas Water Quality Standards
- Currently representing a client in State's first NSR/PSD contested-permit proceeding

Activities and Affiliations

- Member: Natural Resources, Energy, and Environmental Law Sections, American Bar Association; Administrative and Public Law, and Environmental and Natural Resources Law Sections, State Bar of Texas; Board of Directors of the Texas Water Conservation Association, 1999
- Served: Task Force 21, a regulatory negotiation committee for developing environmental rules and policies in Texas, at the request of the Texas Natural Resource Conservation Commission
- Listed: *The Best Lawyers in America* in environmental law
- Author: numerous environmental articles
- Lecturer: environmental courses

Educational and Professional Background

- Attended the University of Southwestern Louisiana
- Texas Tech, B.S. in textile technology and textile chemistry *magna cum laude*, 1978 (Outstanding Engineering Student, Engineering Student Council, 1977-1978)
- The University of Texas School of Law, J.D. with honors, 1981
- Admitted to practice: Texas, 1981

H.B. 801 AND CONTESTED CASES
THE PROTESTANTS GET GONGED - UPDATED

By Jim Blackburn and Mary Carter

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H.B. 801 AND CONTESTED CASES
THE PROTESTANTS GET GONGED - UPDATED

By Jim Blackburn and Mary Carter

I. INTRODUCTION

Our Beatles' song in the Magical Mystery Tour is "You Never Give Me Your Money." The next lines in the song are "You only give me your funny paper and in the middle of negotiations you break down." Maybe this is really the introduction to H.B. 801 from the Protestants' point of view. In 1999, the Texas Legislature passed H.B. 801 as a result of the effort to compromise the desire of the regulated community to escape the burden of unnecessary and time-consuming contested case hearings with the need of the public to have a judicial process to address the health and property implications of environmental decisions.

H.B. 801 set in motion two major revisions to the contested case process. First, a much greater emphasis is placed upon proceedings occurring before the contested case hearing is begun. These preliminary proceedings are intended to provide a forum for the public to be heard and to allow both the agency and the permit applicant to address issues set out by the public. The purpose of this part of the process is to listen to the concerns of the public and to alter the permit to make it less objectionable to the opposing citizens. Second, the Commission is given authority to control the scope and length of hearings. Here, the issues to be heard are determined by the Commission, although the Administrative Law Judge has authority to modify the issues. The Commission is given authority to set the length of time between the commencement of the hearing process and the delivery of a proposal for decision (PFD) by the administrative law judge. This provision appears to be non-negotiable and can result in a very tight and difficult schedule during the discovery phase of the contested case process.

This paper is written from the perspective of citizens who wish to object to a particular permit application. H.B. 801 poses new problems that must be addressed by citizens wishing to object to the issuance of a particular permit. These problems are set out in the paragraphs below. Additionally, our experience with two contested case hearings under the H.B. 801 procedures is included.

II. NEED FOR EARLY LEGAL AND TECHNICAL ADVICE

H.B. 801 embraced the philosophy that problems arising from most permit applications can be resolved by public review and comment procedures. There is a strong bias in this bill and in the implementing regulations toward the pre-hearing resolution of conflicts. The bill sets out a process whereby public notice is issued and where the public must articulate the problems that exist with the application, either in a public meeting or in written public comments. If the problems are not set out in these

pre-hearing procedures, then the issues may not be included in the issues addressed in a contested case hearing.

Opponents proceeding from the standpoint that they are simply opposed to a particular facility at a particular location are likely to be displeased with this comment process. The goal of this comment process is to cause flaws in the application to be brought to the attention of the applicant and the TNRCC staff and to cause changes in the application and/or draft permit and to let the permit be issued. No longer will opponents be able to identify major objections for the first time in the contested case hearing process. Under the old procedures, major issues would have been fleshed out during the discovery process prior to the contested case hearing, but generally after the preliminary hearing, and the draft permit changed after or during the contested case hearing if at all.

As a practical matter, most Protestant groups do not "lie behind the log" and attempt to conceal information until the contested case hearing. Instead, the more likely scenario is that citizens groups are not well organized and have not invested in either legal or technical experts to assist them in these early stages of the permit application. Many opposition groups will lack either the technical know-how to evaluate these applications and the financial resources to hire such know-how or will be caught in a time bind because of comment periods. If an adequate groundwork is not laid during this preliminary stage, then the contested case process could be very restricted if it occurs at all. **THIS IS A MAJOR CHANGE BROUGHT FORWARD IN HB 801.**

The end result of H.B. 801 will be to cause opponents to "lawyer-up" much earlier in the permit process than was the case under prior procedures. Opponent groups that are well-financed and well-organized and who can afford legal and technical expertise will fare much better in this process than will poorer groups that are unable to gain timely advice. However, that statement was also true of the old process. The key difference here is that more money and more organization are required to prevail under H.B. 801 than was the prior case. The downside risk to proceeding without legal advice and technical advice is much greater under H.B. 801 than it was previously.

The specific provisions of H.B. 801 that are troublesome for Protestants relate to the requirement that issues eligible for consideration in a contested case hearing must be raised in either comment letters or in the public meeting created by H.B. 801 (TNRCC Procedural Rules, 55.211(b)(3)(A)). Prior to H.B. 801, public meetings were held but they lacked the importance that is now associated with these meetings. The comment process and the public meeting process are now an essential element of citizen opposition. Careful consideration of the presentation of issues here is essential to effective citizen opposition. It is still unclear exactly how technically complete an issue must be presented in order to qualify as a "disputed issue of fact". The Protestants, of course, would prefer that the issues be presented in a more general way and the applicant, of course, would prefer that the issues are presented in a technically complete way. The two contested case hearings that we have been involved in were both recommended to be referred based on the issues raised. In one case the issues referred to the State Office of Administrative Hearings were general and specific, and in the other case the

Commissioners determined that the issues raised were not specific enough to merit a contested case hearing.

From a practical standpoint, the biggest concern here is to protect issues. As a Protestant, you want to be sure that all possible issues are raised in order to protect yourself later in the process. If you only raise two issues in the public comment and public meeting, you likely will be limited to those two issues in the hearing process. Processes do exist to add issues (80.4 (c)(16). However, granting of additional issues after Commission action is uncertain and certain to be challenged by applicants.

III. REQUIREMENT FOR EARLY ISSUE IDENTIFICATION

The biggest problem for Protestants at the notice stage is determining what constitutes an issue and how to preserve it. There is only limited experience to date and some of that experience is conflicting and the detail and depth of issue identification has not been fully determined. Protestants should develop and articulate issues based upon the substantive rules that control permit issuance. There are many geologic, hydrologic, climatic and biologic features of a site location that are well known to local folks. A good knowledge of local facts should be raised even if specific knowledge of rules and regulations is not. When in doubt, raise issues based on local knowledge. However, Protestants must beware that the "usual" issues that concern them are often not material or relevant to the Commission's decision. For example, Protestants are often concerned about an increase in traffic that will result from the construction of a facility. While traffic can be an issue in a municipal landfill permit application, it is not an issue in an air permit application.

It is impossible to get issues identified in a contested case hearing if the basic law does not allow the agency to consider it. For example, consider a cement batch plant that is proposed to be located on a small country road and is applying for a construction permit under the Texas Clean Air Act. The residents living near this facility know that many trucks will be coming and going from this facility and are concerned about the impact of these trucks on road safety, particularly with respect to their children and school buses. However, the Clean Air Act and the associated regulations do not allow the Commission to consider roadway impacts in permit decisions. Therefore, Protestants must keep in mind the regulations governing a specific type of permit in order that the issue raised is material and relevant to the Commission's decision and therefore capable of being referred to SOAH.

The sequence that occurs under HB 801 is very important. First, citizens must file comments in response to the initial public notice. If the initial notice is for an air permit, then the request for public hearing must be made at this time. Second, there may be a public meeting. If Protestants do not raise specific issues either in the written comment process or in the public meeting, then these issues are lost.

After the comments are compiled, the executive director shall prepare a response to the "timely, relevant, material or significant" public comments (TNRCC Procedural

Rules, 55.156(b)) and shall specify which provisions of the draft permit if any have been changed in response to these comments. These responses are then sent to several people, including those who have made comments (55.156(c)(2)). It must be noted here that the executive director bears a tremendous responsibility in his preparation of the response to comments. In other words, the Executive Director outlines the comments within the "Response to Comments" and then responds to each comment. If the comments are outlined in a general way, then it appears that the Protestants raised generalized issues. If the comments are framed in a more specific way, then it appears as if the Protestants raised actual specific issues. The affected public then has the opportunity to respond by asking that the Commission hold a contested case hearing (55.156(c)) or reconsider the executive director's decision. **THIS IS THE TIME WHEN PROTESTANTS MUST REQUEST A PUBLIC HEARING IN ALL PERMIT CASES EXCEPT AIR PERMITS.** Air permits require a request for public hearing to be submitted at the time the first notice is given of the application.

The request for a contested case hearing must be made in accordance with 55.201(c) and 55.201(d) after the issuance of the Executive Director's response to comments, except in the case of air permits. Of particular importance is 55.201(d)(4) which states as follows:

> (d) A hearing request must . . . (4) list all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request. To facilitate the commission's determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the executive director's responses to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law or policy . . .

This section puts a much greater burden on the public than was the situation prior to HB 801. Now, the public is asked to read and review the executive director's response and compare it with the initial comments that were submitted. Then, the requestor is asked to identify the responses that the requestor disputes and the factual basis of the dispute. Disputed issues of law and policy must also be identified. This step cannot be neglected because it provides the basis for the Commission's determination of the scope of the hearing if they choose to grant one.

The executive director, the applicant and the public interest counsel have the opportunity to submit written responses to the "requestors" written response to the executive director's response. Here, the rules (55.209(e)(1-7)) specify the types of comments that can be filed, including challenges to a requestor's affected person status, the issues that are in fact disputed, whether questions of law or of fact are involved, whether the issues were raised during the public comment period, whether any of the public comment letters raising the issues have been withdrawn, whether the issues are material and relevant to a decision on the application and the maximum duration for the contested case hearing. In both of our cases, the Executive Director and the Office of Public Interest Counsel responded with a person by person analysis of whether the

requestor demonstrated that he or she is an affected person entitled to a contested case hearing, and a list of issues that the Executive Director and the Office of Public Interest Counsel believed should be referred to the State Office of Administrative Hearings. The requestors are allowed to file a reply to any written responses made by the executive director, the applicant and/or the public interest counsel.

IV. THE CONTESTED CASE HEARING BURDEN OF PROOF

Upon completion of the comment and the written response and reply process, the application proceeds to the Commission. Under 55.211(b), the Commission may grant or deny a hearing based upon public comment, the executive director's response to comments, and any requests for contested case hearing and responses to the requests for a contested case hearing. If the Commission determines that a hearing request meets the requirements of the regulations, the Commission must then determine if the request for hearing raises issues that were initially raised in the commenting process and were not withdrawn by the commenter and they must further determine if these issues are material and relevant to the Commission's decision on the application. If the Commission makes such findings, the rules further allow the Commission to specify the number and scope of the specific factual issues to be referred to SOAH and to specify the expected duration of the hearing. Our hearing was given a maximum of six months from preliminary hearing date to the Proposal for Decision issued by the Administrative Law Judge which has turned into a very tight schedule even with everyone cooperating in the process.

This new practice effectively removes the "across-the-regulations" burden of proof. Once the applicant convinces the executive director that a permit application meets the regulations, the burden shifts to the "requestors" to identify disputed issues of fact and disputed issues of law and policy. If the "requestors" fail to raise disputed fact issues, then the hearing is denied and the permit is issued. In this manner, the burden of proof has been shifted to the protesting parties.

In this same manner, the burden of proof is limited in a hearing conducted under the new regulations. Under the new HB 801 procedures, the Commission determines the issues to be submitted to the hearing examiner. There is no burden of proof in the hearing for any issues that are not submitted. In other words, the scope of the hearing after HB 801 is limited to the issues specified by the Commission (unless new issues are added by the Administrative Law Judge). The burden of proof for the applicant, therefore, would relate only to the "disputed issues that are material and relevant". Interestingly, in one of our cases, which is a permit by rule, despite the list of issues referred to SOAH by the Commission, the Administrative Law Judges ruled that the applicant is presumed to meet 30 TAC § 106.4 until the Protestants bring forward competent evidence demonstrating the applicant does not meet 30 TAC § 106.4. This ruling is based on a pre-H.B. 801 case, Ingram Ready - Mix, Inc., SOAH Docket 582-98-1009.

Few cases are won by Protestants and virtually no cases are won by shotgun tactics and cross-examination only. Winning opposition cases certainly utilize cross-

examination but it must be balanced by expert testimony on the side of the protesting parties. By the time a case gets to hearing, the staff of the TNRCC is convinced that the application meets the rules and the Protestants are effectively opposing both the applicant and the TNRCC staff. Once the applicant and the staff testify at a hearing in support of the application, the applicant will certainly argue that the burden of proof has been met, at least minimally.

Perhaps the biggest change here for Protestants is found in the subtleties. Under prior practice, cross-examination could be used to expose the weaknesses of the applicant in many different areas, slowly diminishing the confidence of the Judge in the applicant's expertise or truthfulness. Then, a well-crafted expert report by the Protestants could reveal a flaw, magnified by other shortcomings revealed during cross-examination. Now, this context of prior cross-examination may not exist, altering the hearing dynamic to some extent.

V. CLAIMING AND PRESERVING ISSUES – EXAMPLES

The most important step for Protestants (a.k.a. requestors) under the HB 801 process is to claim and preserve issues in order to be granted a hearing and in order to have subject matter at the hearing. Due to the absence of case law and only limited examples of 801 cases before the Commission, this section on examples is hypothetical with our own limited experience in this 801 process added as examples.

Consider a situation where a permit application has been filed for a municipal type 1 solid waste disposal facility. Here, the TNRCC regulations establish a series of issues that must be addressed by the applicant, including land use considerations, drainage issues, site geology and various aspects of the engineering design for the landfill. Each of these subject areas are general issue categories. Each of these general issues has subcomponents and each of these subcomponents has subcomponents. At what level of detail must the requestor base their request?

Assume that a community has concerns about incompatible land use associated with the site and its surroundings. These issues were raised in public comments and were discussed extensively at the public meeting. These public comments and public meeting statements were then addressed in response comments by the executive director and the applicant. Here, one might find the following language in the executive directors written response that is circulated to the commenters:

> "The applicant has provided information that demonstrates that the character of surrounding land uses within one mile of the proposed facility are generally agricultural and industrial; that there is no major development expected."

The importance of the above response lies in the executive director's reliance upon information submitted by the applicant.

It is at this stage that the HB 801 process triggers unprecedented issues. Now, the protesting parties must request a hearing under section 55.201(d) of the TNRCC procedural rules and the Commission must determine which of the "disputed" issues upon which to grant a hearing, if any.

More generally, there is the question of how one "disputes" an issue. Is it sufficient to simply identify a subject area and label it "disputed"? Is it sufficient to question the integrity of the applicant or an engineering firm based on past compliance issues or past performance in hearings on applications, thereby disagreeing in general with a particular company's representations? While these may be valid arguments, the authors urge an abundance of legal care, particularly if "requestors" have the option of being more detailed. It is clear that HB 801 changed the prior process. It is clear that the Commission has been given authority to limit the scope of a hearing. As a general proposition, the Commissioners believe in their staff. The authors believe that the Commission will limit the scope of hearings based on HB 801 but will be responsive to detail from the requestors. Therefore, detailed information about expected "major development" and character of surrounding land uses in contrast to the applicant's submittal should have been submitted by the Protestants during the comment period and may now be claimed as a disputed issue of fact material and relevant to the Commission's decision.

On the other hand, at least one prior court decision has limited the extent of factual detail that could be required of Protestants in order to gain a hearing from the Commission. This decision pre-dated 801 and was concerned with standing, arguably a more sensitive issue. (See Heat Energy Advance Technology Inc. vs. West Dallas Coalition for Environmental Justice, 962 S.W. 2d 288 (Tex. App.-Austin 1998)) However, it does indicate that the Austin court was concerned, and likely will be concerned, about the extent and fairness of the pre-hearing burden. But, the court also will certainly recognize that HB 801 is an enactment by the legislature that changed the rules of contested case hearings.

Therefore, a requestor is faced with a balancing issue – how much information and how much detail must be provided to convince the Commission that an issue is "disputed". At the least, requestors should identify any issue submitted to the Commission as "DISPUTED". The authors suggest identification of each issue as disputed issue 1, 2, etc. The authors suggest that these issues could be identified generally and then expanded in subcategories.

Take the issue of flooding for a municipal landfill, for example. Assume that the requestors believe that there are flooding issues associated with the site. This concern arises from the fact that the area has experienced high water levels in the past, the surrounding streams have major flood problems and any addition of stormwater to the existing hydrologic system is considered to be a problem to the citizens. There are several aspects of the TNRCC landfill regulations that address drainage and flooding. Under 30 TAC 330.301, restrictions exist against locating landfills in floodplains unless certain precautions are taken. Usually, the Federal Emergency Management Agency

published maps are used as the document that defines the 100-year flood event. However, these maps are known to be erroneous and many areas routinely flood that are not mapped by FEMA as 100-year flood plains. It would seem that lay knowledge of existing flood patterns could provide a basis for a factual "dispute" over whether or not a site is located in an area that floods. Here, it would seem that community knowledge; photographs and descriptions should be sufficient to place this issue into dispute, particularly given that the definition of the floodplain does not incorporate the FEMA map into the definition. But this information must be submitted during the comment period.

Next, consider certain drainage issues. The Site Development Plan rules require that a solid waste management facility be designed to meet certain requirements. 30 TAC 330.55(b) requires that the site development plan contain sufficient information to document compliance with certain drainage requirements, including design, construction and maintenance of a run-on control system for the 25 year storm event, a run-off control system for the 24 hour, 25 year storm event and drainage calculations must be provided, including computer modeling in some cases and sample calculations to verify that the natural drainage patterns will not be significantly altered. These are very technical issues and in order to raise a disputed fact issue regarding drainage, it would seem that something more than general lay knowledge would be required.

One approach here is to engage an expert to prepare a short letter comment. This letter could simply state the credentials of the expert and an opinion stating that the expert disputes the applicant's information and give reasons why, reserving the opportunity for further study. Then if the executive director relies on the information submitted by the applicant in its response to comments, the requestor can point to the comment letter and the specific reasons why the drainage issues are disputed. It would seem that a statement by the expert that she disputes certain identified issues and that additional study will be required on her part in order to be very specific, but that on the basis of a cursory review, certain issues appear troublesome to her should be enough to bring an issue into "disputed status".

Keep in mind that there will have been no discovery at this point in time. The application materials should be available although support documents may be very difficult to obtain without discovery. Discs containing applicable computer models likely will not be available. Therefore, there are certainly limits as to the extent of knowledge that requestors should be expected to obtain in order to get a hearing request granted.

On the other hand, to the extent that an expert has reviewed an application and has specific concerns, sufficient detail should be provided to alert the Commission that a true factual dispute exists. Here, our advice is to identify the specific rules that are violated. Certain rules require information. Other rules require compliance. Some rules are specific. Some are general. All of these rules should be identified if they are applicable to a specific issue. Under pre-801 practices, a more detailed identification of issues generally is required relatively early in the discovery process. This 801 process creates a new step that seems to be a hybrid between a general concern and specific detailed issue.

For example, with regard to drainage, assume that you have requested an expert to review the drainage calculations and she identifies concerns regarding virtually all of the calculations regarding run-on and runoff associated with the site. Here, we recommend that this information be stated, in summary fashion, in the comment letter. If you do not have an expert or do not wish to identify the expert that you have retained, then a detailed statement regarding the technical basis of concern should be simply written and submitted. In addition to the factual description, we recommend clearly stating that 30 TAC 330.55(b) is violated by this (hypothetical) application, including 55(b)(2), 55(b)(3) and 55(b)(5). Additionally, we believe that violation of the general prohibitions should be included for completeness purposes, particularly 30 TAC 330.5(a)(1)(2) and (3) which prohibit discharges into the waters of the state without a permit, nuisances and the endangerment of human health and welfare or the environment, respectively.

The design of the 801 process seems designed to move from general to the specific. Citizen concerns and comments necessarily will be general and broad in the early stages of this comment process. There will have been little time to read and review an application, much less to organize and raise money. Experts, if retained at all, will have had little or no time to read materials. For this reason, citizens need to state their concerns often, broadly and comprehensively. If the issue is not raised in the public comment or the public meeting, it will be lost. An issue cannot be raised at the REQUEST FOR HEARING STAGE if it has not been raised at the comment stage.

VI. RESPONDING TO THE RESPONSE TO THE REQUEST

There are two stages in the REQUEST FOR HEARING PROCESS. After the Requestors request the hearing, the executive director and the applicant, and the public interest counsel, have the opportunity to respond to the request for public hearing. The applicant may be expected to object to the hearing request and/or to limit the scope of issues.

More interesting is the response of the executive director. In the opinion of the authors, the HB 801 process potentially changes the role of the agency into a proponent for the applicant and the application. If the executive director objects to the request for a hearing, the agency is clearly adversarial against the requestor at that point in time. In the past, the executive director has taken positions regarding whether groups have standing or not. However, HB 801 could turn the agency into a defender of the substance of the application. While many of us may have felt that the agency took this position in the past, HB 801 makes the agency's defense of the application more apparent. In both of our cases, however, both the Executive Director and the Public Interest Counsel recommended a contested case hearing and a list of disputed issues to be referred to SOAH. When the cases came before the Commission at the agenda meeting, the Commission refused to grant a contested case hearing for one of the cases presumably on the basis that there were not disputed issues of fact raised during the comment period. The Commissioners stated that they expected that their decision would be challenged in court, if not on this case, in another case.

VII. CONCLUDING OBSERVATIONS

It is the opinion of the authors that the requestors under the new 801 procedures should proceed cautiously. If you have a choice, we recommend that more, rather than less, detail be submitted in the comments and request for hearing.

The downside to providing details is that the applicant or the agency may take the comments to heart and change the application to take away disputed issues. Given the nature of the 801 process, however, it seems fair that the Commission should take certain steps to protect "requestors" that abide by this approach and make their comments in sufficient detail. It seems, given the extensive reliance of this process on identification of issues prior to the hearing, that the applicant should not be allowed to amend the application once a hearing has been set. The Protestants will have been raising certain issues since the initial comment period and their concerns will have been ignored or deflected until, suddenly, the applicant realizes that they might not prevail in a hearing process. Restricting the ability of the applicant to amend after the initiation of the contested case proceeding would greatly help the goals of the 801 process to be met.

This new 801 process will be challenging to parties who wish to protest applications. However, we should keep in mind that 801 was passed as a compromise on a bill that would have eliminated the contested case proceedings. Both Protestants and Administrative Law Judges would have been out of the contested case business on TNRCC applications if the original bill had passed. We both should learn from that experience and work to make the contested case hearing effective and strong in producing fair results to all involved.

James B. Blackburn, Jr.

Jim Blackburn is an environmental lawyer and scientist living in Houston, Texas. He is a partner in the law firm of Blackburn Carter and is a lecturer in environmental law and planning in the Environmental Science and Engineering Department at Rice University. He received B.S. (history, 1969) and J.D. (law, 1972) degrees from the University of Texas and an M.S. in environmental science from Rice University (1974).

Mr. Blackburn's private practice involves innovative legal and technical strategies for environmental improvement. Blackburn Carter's practice is restricted to environmental law, concentrating upon protection of the environment and neighborhoods. Mr. Blackburn is currently involved in federal litigation to protect the Colombia Bottomlands wetland system, in citizen protests before the state environmental agency involving solid waste disposal and in toxic tort litigation associated with hazardous air pollution. Mr. Blackburn worked for several years developing an air pollution control program for the City of Houston and is now representing several environmental groups on clean air issues.

*Mr. Blackburn's teaching at Rice University is primarily in the Environmental Science and Engineering Department, where he teaches U.S. and global environmental law and sustainable development. In 1997, Mr. Blackburn helped organize the Delange*Woodlands Conference on Sustainable Development at Rice. His principal research area is sustainable development and collaboration.*

Mr. Blackburn is also active in community issues. He is chair of the Galveston Bay Conservation and Preservation Association and is on the Board of Directors of Trees for Houston and The Texas Center for Policy Studies. Mr. Blackburn is the founding chairman of the Galveston Bay Foundation and is helping form the Matagorda Bay Foundation. Mr. Blackburn was awarded the Robert C. Eckhardt Lifetime Achievement Award of the General Land Office of the State of Texas in 1998 and has been awarded the Jesse L. Walls award for work in preserving waterways.

Mary W. Carter

Ms. Carter obtained her B.A. degree at Smith College in 1964, and earned her J.D. from the University of Houston Law Center in 1986. Prior to attending law school, she worked in the investment and banking industry. Since joining Mr. Blackburn's law practice in September 1986, Ms. Carter has represented clients in regulatory and administrative proceedings and contested hearings, and has worked extensively on environmental litigation involving interpretation of federal statutes. Additionally, Ms. Carter has co-authored publications with Mr. Blackburn in the area of owner and lender hazardous waste liability under federal environmental statutes, citizen participation in the Superfund process and agency proceedings, as well as a publication on Galveston Bay comprehensive environmental impacts. She is a member of the State Bar of Texas and the Houston Bar Association. Ms. Carter is licensed to practice law in the United States District Court for the Southern, Eastern and Western Districts of Texas and the United States Court of Appeals for the Fifth Circuit. Ms. Carter is active in several local environmental organizations.

REPRESENTING THE PUBLIC INTEREST

Blas J.Coy, Jr.

The Office of Public Interest Counsel
Texas Natural Resource Conservation Commission

REPRESENTING THE PUBLIC INTEREST

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". . . that vague, impalpable but all-controlling consideration, the public interest."

- Justice Felix Frankfurter

Introduction

One of the difficulties in discussing the public interest and public interest law is that, like art, each of us think we know what it is when we see it, and therefore, know how to represent it. If required to verbalize what the "public interest" is, however, articulating a concise definition or description of the concept becomes an extremely difficult task. Indeed, it is a continuous struggle to agree on such matters as what activities are in the public interest or what component of the public is being referenced. Having a statutory duty to represent the "public interest" does not bestow any magical power or ability on this office to discern the absolute meaning of the term. Like everyone else practicing environmental law, each of us in the office of public interest counsel struggle with identifying the public interest issues in each proceeding in which we participate and work diligently to represent those interests. I am hopeful that this note can provide an idea of what we think representing the public interest means for this office and how we go about trying to accomplish that duty.

The Role of the Office

The office of public interest counsel exists to ensure that the commission (1) promotes the public interest and (2) is responsive to environmental and citizen concerns. This statutory mandate, at least in a broad sense, defines the public interest for this office.[1]

Over time we have come to understand that the underlying principle in the law contemplates the development of a process and a product conducive to promoting the public interest. We further concluded that we needed to act within a framework that would ensure that the record upon which the commission makes its decisions is fully developed. To do this we work with the commission and the public to create an environment that furthers these goals. We determined that we could best accomplish this objective and represent the public interest by responding to the statutory direction in two ways.

The first is to develop and provide recommendations to the commission through staff participation in contested case hearings on agency permits, comment on rule making, public policy and various legal issues. We work independently of other TNRCC divisions to make the commission aware of public interest and legal issues relevant to these matters that have either not been addressed or not sufficiently developed by other parties to a hearing or other proceeding.

The second is to promote citizen involvement in the decision-making of the commission. We do this primarily through an education process. This involves actively responding to requests for general information from the public; explaining the contested case hearing, rule making and policy making process to interested citizens and applicants; and working to make

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[1] TEX. WATER CODE ANN.§ 5.271 (Vernon 2000). A copy of the statute with the underlined amendments added by House Bill 2912 is appended to this paper.

sure that concerns expressed by members of the public affected by a particular application are brought before the Commission. Assisting the public to understand how they can participate effectively in the process that results in the decisions that affect their lives and providing a means for meaningful dialogue with the agency are clearly a significant element in representing the public interest.

The work of the office of public interest counsel in creating a process that encourages the participation of the public and the development of information that might otherwise not be available to the commission is critical. As a party to every proceeding we think the office's involvement provides balance to and preserves the integrity of the application review and hearings process. The office's participation ensures that relevant evidence on environmental or consumer-related issues is developed and made part of the record for the commission's consideration. As a result, the commission is able to make informed decisions, issue permits that are truly protective of human health and the environment and take into account the greater public interest, as well as the interests of affected parties. We are humbly cognizant of our shortcomings; however, when we are successful we believe we represent the public interest in the way contemplated by the law.

A Note on the Sunset Bill

Although legislators in past sessions have proposed the creation of an independent counsel's office no significant legislative changes have been made to the office until this past legislative session. The passage of House Bill 2912 (the Sunset bill) brings several changes to the way the Texas Natural Resource Conservation Commission will conduct its business in the

future. Among the amendments contained within the sunset bill were two significant changes to the statutory authority of the public interest counsel's office.

Section 5.273, which describes the duties of the office, was amended by adding a new subsection (b) to give the counsel the authority to recommend legislative and regulatory changes. New section 5.274(b) now provides that the counsel may obtain outside technical assistance. These amendments should improve the effectiveness of the office and its ability to represent the public interest. Its difficult to say at this point in time how the additional authority given the counsel will ultimately be implemented and exercised. It is clear, however, that the ability of the counsel to recommend rules and legislation and to take advantage of independent technical review of applications should result in more effective and substantive recommendations to the commission.

Conclusion

In explaining how the office of public interest counsel undertakes to represent the public interest, I have not attempted to define what the public interest is or should be in every instance; rather I have taken this opportunity to explain how we try to "do our duty as we understand it."[2]

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[2] Abraham Lincoln -"Neither let us be slandered from our duty by false accusations against us, nor frightened from it by menaces of destruction to the Government nor of dungeons to ourselves. Let us have faith that right makes might, and in that faith, let us, to the end, dare to do our duty as we understand it."-- From the February 27, 1860 Cooper Union Address.

TEXAS WATER CODE, CHAPTER 5
SUBCHAPTER G. OFFICE OF PUBLIC INTEREST COUNSEL

§ 5.271. Creation and General Responsibility of the Office of Public Interest Counsel

The office of public interest counsel is created to ensure that the commission promotes the public's interest and is responsive to environmental and citizens' concerns including environmental quality and consumer protection.

§ 5.272. Public Interest Counsel

The office shall be headed by a public interest counsel appointed by the commission. The executive director may submit the names and qualifications of candidates for public interest counsel to the commission.

§ 5.273. Duties of the Public Interest Counsel.

(a) The counsel shall represent the public interest and be a party to all proceedings before the commission.

(b) The counsel may recommend needed legislative and regulatory changes.

§ 5.274. Staff.

(a) The office shall be adequately staffed to carry out its functions under this code.

(b) The counsel may obtain and use outside technical support to carry out its functions under this code.

§ 5.275 Appeal

A ruling, decision, or other act of the commission may not be appealed by the counsel.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

OFFICE OF PUBLIC INTEREST COUNSEL
MISSION STATEMENT

Mission Statement and Guiding Principles

The mission of the OPIC is to represent the public interest before the Commission. To further this mission, the OPIC is committed to the following principles:

1. Effectively participating as a party to each contested case before the Commission, within the limits of its resources, thereby assuring that all important factual, legal and policy issues are fully developed and presented to the Commission;

2. Participating in the negotiation of disputes involving matters within the jurisdiction of the Commission and facilitating resolutions without an evidentiary hearing;

3. Providing sound recommendations to the Commission concerning matters of environmental quality, consumer protection and public participation;

4. Making recommendations to the Commission of legislative action that promotes the public interest and enhances the agency's ability to achieve its mission;

5. Presenting the public interest perspective on matters of environmental quality and consumer protection in meetings with the executive director's staff, the public, the regulated community and other agencies;

6. Educating the public regarding substantive and procedural issues within the jurisdiction of the Commission, its mission and the functions of each office and division within the Commission;

7. Providing accurate information in prompt response to inquiries from the public related to agency procedures, regulations, policies and other sources of information and assistance available from the TNRCC;

8. Providing an easily accessible means by which the public may make the Commission aware of matters of public interest that relate to environmental quality and consumer protection;

9. Initiating new agency rules, amendments to existing rules and comments on rule proposals made by others; and

10. Developing human resources to effectively and efficiently serve the public interest objectives stated above.

BLAS J. COY, JR.
Public Interest Counsel

Texas Natural Resource Conservation Commission

Blas J. Coy, Jr. was appointed Public Interest Counsel of the TNRCC by the Commission in 1996. Blas, an Austin, Texas native, attended schools in East Austin and is a proud graduate of A.S. Johnston High School. He also attended the University of Texas at Austin where he earned a B.A. in Economics in 1985 and his J.D. from the University of Texas School of Law in 1988.

Prior to being appointed Public Interest Counsel Blas served as Deputy Public Interest Counsel in the office from 1993 to1996. He served as Assistant Criminal District Attorney in Bastrop County, Texas from 1990 to 1993 and worked in the Texas Attorney General's office as an Assistant Attorney General from 1988 to 1989 and as a law clerk during law school.

Blas lives in Bastrop, Texas with his wife Rebecca and their children, Katie and Tyler.

Environmental Case Law Update

Ob-La-Di, Ob-La-Da

by

Mary Simmons Mendoza
Haynes and Boone, LLP
600 Congress Ave., Suite 1600
Austin, Texas 78701

13th Annual Texas Environmental Law Superconference
Austin, Texas
August 2-3, 2001

Environmental Caselaw Update

by
Mary Simmons Mendoza
Haynes and Boone, LLP
August 3-4 2001

Several court decisions having significant impact on environmental law have been handed down this year, including several cases from the United States Supreme Court. This paper addresses this year's more significant decisions.

Supreme Court

The Supreme Court handed down several cases of interest to environmental lawyers. The Court limited federal jurisdiction over wetlands, clarified the scope of the Takings Clause, and upheld the Environmental Protection Agency's National Ambient Air Quality Standards for ozone. The Court also issued opinions that, when applied in the environmental context, may limit environmental justice suits and may restrict recovery of attorney's fees in citizens suits.

- In one of the year's most significant decisions, the United States Supreme Court, in a 5-4 decision, invalidated the "Migratory Bird Rule" of the Corps of Engineers and seriously weakened one of the underpinnings of the federal pollution laws – reliance on the Commerce Clause of the Constitution. *See Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 121 U.S. 675 (2001). The Court's decision most immediately affects future development in areas containing isolated wetlands. More significantly, it suggests a continued willingness on the part of the Court to restrict the regulatory power of the federal government.

  In *SWANCC*, the plaintiffs attempted to site a solid waste landfill on land containing abandoned mining pits that had filled with water and become home to 121 species of birds. Based on the presence of those birds, the Corps of Engineers, applying its Migratory Bird Rule, determined that the land contained "navigable waters" – jurisdictional wetlands under the federal Clean Water Act – and that the municipalities were required to obtain a Section 404 dredged or fill material permit. The Court overturned the Corps' Migratory Bird Rule, finding that the Corps had exceeded its power under the statute by adopting a rule that invoked the outer limits of Congress' power, without clear congressional support. Although the Court sidestepped directly addressing the Constitutional question, the Court observed that the Corp's interpretation raised significant constitutional

questions regarding the scope of Congress' authority under the Commerce Clause, and suggested that any future legislation by Congress would raise those same questions. *SWANCC* reflects something of a trend at the Supreme Court; in two fairly recent decisions, the Court overturned federal legislation as unauthorized under the Commerce Clause – *United States v. Morrison*, 120 S.Ct. 1740 (2000) dealing with the Violence Against Women Act, and *United States v. Lopez,* 115 S.Ct. 1624 (1995) dealing with the Gun-Free School Zones Act.

Furthermore, the Court appears to have significantly retreated from prior decisions that found it was Congress' intent that the Clean Water Act's jurisdictional term "navigable waters" be given the broadest possible interpretation. The majority opinion suggests that the concept of navigability, which had been consistently found unnecessary to support jurisdiction, is again relevant. *Id.* at 683. Further, the Court stated that the statute does not allow an interpretation of "navigable waters" that causes the "jurisdiction of the Corps [to] extend[s] to ponds that are not adjacent to open water." *Id.* at 680.

- The Supreme Court turned its attention to regulatory takings in *Palazzolo v. Rhode Island,* 121 S.Ct. 2448 (2001). The Court found that a property owner who acquired property after the adoption of state regulations affecting the use of the property is not automatically prevented from seeking compensation for a taking under the Fifth Amendment of the U.S. Constitution.

  Palazzolo involves land in Westerly, Rhode Island, where Anthony Palazzolo sought to build a beach club. At the time of Palazzolo's acquisition of the property, almost all of the property was designated as coastal wetlands, making development subject to the approval of the Rhode Island Coastal Resources Management Council. Palazzolo filed two applications seeking to fill all or some of the wetlands to build a private beach club. Both applications were rejected, and the Council found that the proposed project did not fall into the "special exception" category for projects serving a "compelling public purpose." Palazzolo brought an inverse condemnation action in state court. The Rhode Island Supreme Court found that (1) his claim was not ripe; (2) he could not bring a claim because the regulations limiting development pre-dated his acquisition of the property; (3) he had not shown a loss of all economic use of the property; and (4) he could have "no reasonable investment-backed expectations that were affected by this regulation." The Court held that the Rhode Island court erred on issues (1)

and (2), was correct on (3), and remanded for further consideration on issue (4).

On the ripeness issue, the Court reiterated its earlier holdings that for a takings claim on land-use restrictions to be ripe, the regulatory body charged with implementing the regulations must have reached "a final decision regarding the application of the regulations to the property at issue." *Id.* at 2458. In Palazzolo's case, he had filed two applications, both of which had been denied. The Court rejected the state's argument that the applicant had failed to explore other uses that would involve filling less wetlands. *Id.* It was clear to the Court that the Council's decision interpreted the land use regulations to bar filling or development on the wetlands. The ripeness doctrine "does not require a landowner to submit applications for their own sake" when there is no uncertainty as to the land's permitted use. *Id.* at 2460.

The Court went on to reject the state's notice defense, *i.e.*, that the post-regulation acquisition of title barred Palazzolo's claim. A holding that a successor in title is barred from asserting a takings claims would allow the state to "put an expiration date on the Takings Clause," which "ought not to be the rule." *Id.* at 2463. A regulation that would otherwise be unconstitutional absent compensation is not transformed into a "background principle of the State's law," for which compensation need not be paid, "by mere virtue of the passage of title." *Id.* at 2464.

Palazzolo was remanded to the state court for an analysis under *Penn Central v. Transp. Co. v. New York City*, 438 U.S. 104 (1978). In instances where a regulation falls short of eliminating all economically beneficial use, *Penn Central* holds that a taking may have occurred depending on factors including the regulation's economic effect on the landowner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action. In a concurring opinion, Justice O'Connor stated that the regulations in effect at the time of acquisition are a factor, but not a dispositive factor, in assessing the property owner's reasonable investment-backed expectations. Justice Scalia disagreed in a concurring opinion, stating that the regulations upon acquisition should have no bearing on the decision of whether a taking occurred.

Following *Palazzolo*, the Supreme Court vacated and remanded a decision in South Carolina regarding failed attempts to develop coastal property. *McQueen v. South Carolina Department of Health and Environmental*

Control, 530 S.E.2d 628 (S.C. 2000), *cert. granted, judgment vacated*, 121 S.Ct. 2581 (U.S. June 29, 2001)(No. 00-285).

The Supreme Court is set to revisit the Takings Clause in *Tahoe-Sierra Preservation Council Inc. v. Tahoe Regional Planning Agency*, 216 F.3d 764 (9th Cir. 2000), *cert. granted in part*, 69 U.S.L.W. 3505 (U.S. June 29, 2001) (No. 00-1167). In *Tahoe-Sierra*, the Court agreed to review whether a temporary moratorium on land development is a taking of property requiring compensation under the Takings Clause of the Constitution. The Ninth Circuit had held that a temporary moratorium on development was not a regulatory taking.

- The Environmental Protection Agency ("EPA") was handed a significant victory when the United States Supreme Court upheld EPA's adoption of a revised National Ambient Air Quality Standard ("NAAQS") for ozone. *Whitman v. American Trucking Associations, Inc.*, 121 S.Ct. 903 (2001). The Court ruled that EPA is not required to consider potential economic burdens in the setting of an NAAQS; EPA is only required to determine the maximum level of ozone that may occur without adversely affecting public health. The Court also held that the Clean Air Act did not improperly delegate legislative powers that belong to Congress to EPA. EPA's more stringent revised standard could result in the Austin, San Antonio, and Tyler/Longview areas joining the Dallas/Fort Worth, Houston/Galveston, Beaumont/Port Arthur, and El Paso areas as "nonattainment." What remains uncertain, however, is how implementation will proceed. The Court rejected EPA's implementation policy, but found that the statute was ambiguous on how EPA should implement a revised NAAQS. The Court left resolution of that ambiguity to EPA. Development of an implementation strategy is critical, because that is where EPA may consider the costs of achieving the standard.

The year also has resulted in two Supreme Court cases that, although they did not arise under environmental law, affect environmental cases.

- The Supreme Court's decision in *Alexander v. Sandoval,* 121 S.Ct. 1511 (2001), may severely curtail environmental justice suits. In *Alexander,* a Hispanic woman sued over the Alabama Department of Public Safety's policy of English-only driver's license examinations. She alleged that the policy was discriminatory and violated disparate-impact regulations issued under section 602 of Title VI of the Civil Rights Act of 1964. *Id.* at 1515. The Supreme Court ruled that private individuals may not sue to enforce disparate-impact regulations issued under Section 602 of Title VI. *Id.* at

1523. The decision does not affect suits under section 601 of Title VI, which requires a showing of intentional discrimination. *Id.* at 1516. The decision also does not explicitly preclude a claim under section 1983, which authorizes suits for deprivation, under color of state law, of rights "secured by the Constitution and laws."

Alexander has had an immediate effect on a Title VI suit seeking to enjoin the operation of a cement plant in Camden, New Jersey. In *South Camden Citizens In Action v. New Jersey Department of Environmental Protection*, the District Court issued an injunction barring the operation of the plant under Title VI's disparate-impact regulations. – F.Supp.2d –, 2001 WL 392472 (D.N.J. 2001). After *Sandoval*, the district court reconsidered the issue and found that *Sandoval* did not prevent the plaintiffs from seeking relief based on Section 1983. –F.Supp.2d –, 2001 WL 491965 (D.N.J. 2001). The federal Court of Appeals for the Third Circuit recently lifted the injunction after evaluation of the Supreme Court's decision in *Alexander*, allowing the plant to begin operations. *South Camden Citizens in Action v. New Jersey Dept. of Environmental Protection,* No. 01-2224 (3d Cir., June 15, 2001).

- In another non-environmental case, *Buckhannon Board & Care Home, Inc. v. West Virginia Department of Health and Human Resources*, 121 S.Ct. 1835 (2001), the Court narrowed the definition of a "prevailing party" entitled to recovery of attorneys fees in a citizen's suit. The case arose under the citizen suit provisions of the Americans with Disabilities Act and the Fair Housing Amendments Act, which have citizen suit provisions similar to those provision in many environmental laws. In *Buckhannon*, the defendant modified its practices during the pendency of litigation, rendering the case moot. *Id.* at 1838. The plaintiff asked for an award attorneys' fees, arguing that its suit was the impetus for the defendant's actions. *Id.* The Court ruled that a party is eligible for fee recovery as a "prevailing party" where the court enters a judgment on the merits or approves a settlement by entry of a consent decree. With this opinion, the Court rejected the "catalyst theory," asserted by environmental groups where defendants voluntarily change their conduct after the filing of a complaint. "A defendant's voluntary change in conduct, although perhaps accomplishing what the plaintiff sought to achieve by the lawsuit, lacks the necessary judicial *imprimatur* on the change." *Id.* at 1840 (emphasis in original). The Court focused on whether there had been a "material alteration of the legal relationship of the parties." *Id.* If applied to environmental cases, *Buckhannon* will make recovery of fees in environmental citizens suits more difficult. The Court notes, however, that it is not clear how often cases will

become moot through defendant's voluntary conduct. In this part of the opinion, the Court cites to *Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.*, 528 U.S. 167, 189 (2000), in which the court stated that the federal court retains jurisdiction unless it is "absolutely clear that the allegedly wrongful behavior could not reasonably be expected to recur."

CERCLA

Federal courts issued numerous opinions regarding CERCLA liability. The more significant decisions, among other things, limited EPA's ability to obtain access orders, allowed suits against a dissolved corporation, clarified arranger liability as it may apply to environmental consultants, allowed a purchaser who knew of some, but not all contamination on the acquired property to claim innocent landowner status, and clarified the statute of limitations applicable to various cost-recovery actions.

- In what is apparently the first time EPA has lost a suit in which it sought access to property, the Seventh Circuit characterized EPA's request for unlimited access as "claiming the authority to conduct warrantless searches and seizures, of a peculiarly destructive sort, on residential property despite the absence of any exigent circumstances." *United States v. Tarkowski*, 248 F.3d 596, 601 (7th Cir. 2001). The facts of the case are somewhat unique. EPA had conducted an investigation of the property many years earlier, had concluded that it posed no environmental hazard, and had scored the property as a zero on the hazard ranking scale. State authorities had reached similar conclusions. Despite this history, EPA sought another access order for a mixture of investigative and remedial actions, claiming that contamination posed an imminent and substantial endangerment to the public health, welfare and the environment under CERCLA. *Id.* at 598.

  The court stated that EPA put forth an "extreme position that, provided it has probable cause to believe that there is even a thimbleful of a hazardous substance spilled . . . it has an absolute right to an access order regardless of the action it proposes to take once it gains that access." *Id.* at 599. The court appeared particularly concerned over EPA's stated intention to excavate the entire property to see if it could find buried drums, which could, in the words of the court, render the property "wholly useless to its owner." *Id.* The Seventh Circuit found that "it is unreasonable for the EPA to insist on a judicial carte blanche to embark on drastic remedial action in advance of obtaining any rational basis for believing there is any danger to the environment that would warrant such action." *Id.* at 600. Furthermore, "it is unlikely, even apart from constitutional considerations,

that Congress intended to confer such authority on the EPA." *Id.* at 601. The court's opinion was clear that had EPA been seeking only access for investigation, the result of the case likely would have been different.

- On June 29, 2001, the Supreme Court declined to review a Fifth Circuit's decision in *Geraghty and Miller, Inc. v. Conoco, Inc.*, 234 F.3d 917 (5th Cir. 2000), *cert. denied, Arcadis Geraghty & Miller, Inc. v. Conoco, Inc.*, 69 U.S.L.W. 3687 (U.S. June 29, 2001)(No. 00-1582), holding that a remediation contractor could be liable as an operator or arranger under CERCLA. Geraghty and Miller had been hired for the purpose, among other things, of assessing the groundwater contamination at the site, including the installation of monitoring wells at the site. Conoco alleged that the monitoring wells had technical and physical deficiencies that were aggravating the contamination. Conoco brought a CERCLA section 113 claim and state common law claims against Geraghty and Miller.

  Although the trial court sided with Geraghty and Miller, the Fifth Circuit found that Geraghty and Miller could be an operator depending upon it's "degree of control" over the monitoring wells. *Id.* at 929. Further, Geraghty and Miller could be an "arranger" if its monitoring wells caused migration of the contamination. *Id.* The Court reiterated its prior holdings that "one who moves hazardous waste intra-site can be held liable as an arranger." *Id.* On remand, the court instructed the district court to consider the totality of the circumstances in determining arranger liability. The court specifically pointed to cases where arranger liability was based on "instructions to a third party [that] caused waste to be dispersed across the site" and on "the obligation to exercise control over hazardous waste disposal, and not the mere ability or opportunity to control the disposal." *Id., citing Burlington N. R.R. Co. v. Woods Indus., Inc.*, 815 F.Supp. 1384 (E.D.Wash. 1993) and *General Elec. Co. v. AAMCO Transmissions, Inc.* 962 F.2d 281 (2d Cir. 1992).

  The case also addressed the appropriate statute of limitations for the CERCLA section 113 action. CERCLA contains different statutes of limitations for different situations. For example, a six-year statute governs initial actions for recovery of remedial costs under section 107(a), triggered by the beginning of site construction; a three-year statute governs contribution actions under section 113, triggered by a prior judgment, an administrative order, or a judicially approved settlement. *Id.* at 923-924. The court found that none of the triggering events occurred in the case. *Id.* at 924. The court recognized a split in the circuits on this matter and ultimately concluded that a six-year statute of limitations applies to a case

where none of the triggering events for the 113 action had occurred. The Fifth Circuit reasoned that section 113 "does not create a new cause of action or create any new liabilities" but instead is a means for apportioning costs recoverable under section 107. *Id.*

- In another case in the long line of cases arising from the Vertac Chemical site, the Eight Circuit found that a company that supplied chemicals to Vertac for use in the manufacturing of pesticides could be liable as an "arranger" under CERCLA. *United States v. Hercules, Inc.*, 247 F.3d 706 (8th Cir. 2001). The parties had a unique business relationship. Uniroyal supplied a chemical needed for the production of a pesticide to Vertac. *Id.* at 713. Vertac did not pay Uniroyal for the chemical, instead giving Uniroyal a discount against the costs of the pesticides Uniroyal ultimately purchased. *Id.* The court rejected Uniroyal's argument that it had no control over the production and disposal process, finding that control is not a prerequisite to arranger liability in all circumstances. *Id.* at 721. The court said that one must look at the "totality of the circumstances" to determine arranger liability. *Id.* at 722.

- *Thomson Precision Ball Co. LLC v. PSB Associates Liquidating Trust*, No. CIV.300CV1000PCD, 2001 WL 10507 (D.Conn. Jan. 3, 2001) deals with the innocent landowner defense. In this case, a purchaser of contaminated property was allowed to pursue cost recovery claims under section 107 of CERCLA against the seller after the court found that the purchaser was an innocent landowner. Thomson purchased a business from Pioneer. Before the purchase, Thomson hired an environmental consultant to investigate the site. The consultant reported that the site contained a metals sludge pit and two wastewater settling lagoons. In connection with the property transfer, Pioneer certified to the state that the consultant's report was accurate. Based on this information, Thomson went forward with the purchase. Thomson subsequently discovered groundwater and soil contamination, and other waste disposal locations throughout the site unrelated to the contamination its consultant had identified.

  Thomson brought a suit under section 107 against Pioneer. When Pioneer argued that Thomson, as a potentially responsible party ("PRP"), was not entitled to bring a section 107 suit, Thomson responded that it was an innocent landowner. The district court found that to be entitled to the innocent landowner defense, Thomson did not have to prove a "lack of knowledge or reason to know of *any* hazardous substance, but rather of any hazardous substance *that is the subject of a release or threatened release.*" *Id.* at *3 (emphasis in original). The court further found that Pioneer knew

of the additional contamination at the time of the sale and affirmatively concealed it. *Id.* at *1. Thomson was entitled to innocent landowner status for those hazardous substances not disclosed by Pioneer. *Id.* at *3.

- In *Norfolk Southern Railroad Co. v. Gee Co.*, No. 98 C 1619, 2001 WL 710116 (N.D.Ill. June 25, 2001), a landowner conducted a CERCLA removal action under the supervision of the state environmental regulatory agency. The landowner, however, failed to provide community-wide notice, as required by the National Contingency Plan ("NCP"). In a footnote, the court discussed the impact of this failure on the plaintiff's ability to obtain cost recovery. *Id.* at *13, n.13. The court held that this failure to strictly comply with the NCP was not a bar to recovery. The court held that "public agency approval may qualify as an adequate substitute to any apparent NCP deficiency." *Id.*

- In *New York v. Longboat, Inc.*, 140 F.Supp.2d 174 (N.D.N.Y. 2001), the State of New York brought suit against Longboat, Inc. and its president, James Barry, seeking recovery of response costs under CERCLA. The court allowed the suit to proceed against Longboat even though Longboat had dissolved its operations. The court said that a company is still subject to CERCLA suit for its pre-dissolution activities. *Id.* at 177. The court further refused to dismiss Barry from the suit. Although it is not entirely clear from the opinion, it appears that the allegations against Barry were based solely on his status as an officer of the corporation at the time of a release of hazardous substances and not upon his actions in relation to the release. *Id.*

- In a case of first impression, the Environmental Appeals Board held that an arranger can be held liable for hazardous waste that was released from a vessel and settled on the ocean floor. *In re The Port Authority of New York and New Jersey, and ECDC Environmental L.C./Laidlaw Environmental Services*, EPA Environmental Appeal Board, Petition No. 96-5, 2001 WL 624776 (E.P.A. May 30, 2001) (page references not available). The case involved a spill of waste material from a barge which ran aground near Charleston Harbor in South Carolina. Dredged material containing dioxin was released from the barge. The Coast Guard issued a unilateral administrative order ("UAO") under CERCLA requiring removal of the spilled materials. The recipients of the UAO complied with the order and then filed an action seeking reimbursement of the expenses of compliance, claiming that CERCLA did not apply to the release. The EAB stated that although the term facility does not include vessels, the broad remedial purpose of CERCLA is promoted by a finding that where "a hazardous substance is released from a vessel and comes to be located at a discrete

place on the ocean bottom, a facility within the meaning of CERCLA is created on the ocean bottom."

CLEAN AIR ACT

EPA had another victory on a challenge to CAA rules in addition to the Supreme Court's decision in *American Trucking*. Furthermore, the courts clarified the statute of limitations applicable to suits for penalties and injunctive relief under the Clean Air Act.

- In a pair of opinions in *United States v. American Electric Power Services Corp.*, a suit alleging CAA violations against six utilities that own or operate coal-fired power plants was allowed to proceed. 137 F. Supp.2d 1060, 137 F.Supp.2d 808 (S.D.Ohio 2001). The suit, originally filed by EPA but joined by several states and citizen groups, sought injunctive relief and civil penalties for modifications made to the plants. The defendants moved to dismiss certain claims based on the general five-year federal statute of limitations found in 28 U.S.C. section 2462. The court held that 28 U.S.C. section 2462 barred claims for civil penalties for violations more than five years old; it did not bar claims for injunctive relief even when the modification occurred more than five years prior to suit. 137 F.Supp.2d at 811-812, 1068-1069.

- In *Husqvarna AB v. EPA*, -- F.3d --, 2001 WL 725704 (D.C. Cir. 2001), the D.C. Circuit upheld EPA's regulations setting standards for nonroad, spark-ignition, handheld engines under section 213 of the Clean Air Act. Petitioners challenged both the substance and procedures of the rulemaking. The court held that EPA did not "deviate from its statutory mandate or frustrate congressional will by placing primary significance on the greatest degree of emission reduction achievable and by considering cost, noise, energy and safety factors as important but secondary factors." *Id.* at *3. Further, the court concluded that the agency followed proper rulemaking procedures.

RCRA

Two federal district courts refused to follow the Eighth Circuit's decision in *Harmon Industries, Inc. v. Browner*, 191 F.3d 894 (8th Cir. 1999), which prohibited overfiling by EPA.

- In *United States v. Power Engineering Co.*, 125 F.Supp.2d 1050 (D.Colo. 2000), the federal District Court for Colorado found that EPA retained the right to file an enforcement action under RCRA even in situations when an authorized state has already pursued enforcement. In *Power Engineering*, Colorado had taken numerous enforcement actions against Power Engineering related to contamination at a site. EPA subsequently filed an action seeking to require Power Engineering to post financial assurance for the remedial actions, a step not requested in any of Colorado's enforcement actions. The court disagreed with the reasoning in *Harmon* and allowed EPA's action to proceed.

- In *United States v. Murphy Oil USA, Inc.*, 143 F.Supp.2d 1054 (W.D.Wisc. 2001), the federal District Court for the Western District of Wisconsin similarly disagreed with *Harmon*. The EPA brought an action against Murphy Oil seeking civil penalties and injunctive relief under several environmental statutes, including RCRA, arising out of the construction and operations of its oil refinery. In defense of the RCRA claims, Murphy Oil argued that the claims were barred by a prior state enforcement action. The court noted that in *Harmon*, the state had obtained a judicially approved consent decree against the defendant. In *Murphy Oil*, the state had only initiated an action under RCRA after the government filed its complaint. Despite the factual differences, the court discusses the applicability of *Harmon*. The court disagreed with the Eighth Circuit's reasoning and refused to dismiss the RCRA complaint on *Harmon* grounds.

CLEAN WATER ACT/OIL POLLUTION ACT

The Fifth Circuit rejected claims under the Oil Pollution Act for groundwater contamination, holding that "navigable water" does not include groundwater. The Fourth Circuit upheld a criminal conviction of a "responsible corporate officer" who had the authority to prevent or correct violations of the Clean Water Act.

- In *Rice v. Harken Exploration Co.*, the Fifth Circuit indicated that the Oil Pollution Act covers the same "navigable waters" as the Clean Water Act. 250 F.3d 264, 267-268 (5th Cir. 2001). In doing so, the Fifth Circuit determined that "navigable waters" and "waters of the United States" do not cover groundwater. *Id.* at 269-270. The Fifth Circuit also addressed whether discharges onto land with seepage into groundwater which migrates into protected surface waters are covered under the CWA or OPA. OPA imposes liability for discharges "into or upon the navigable waters." 33 U.S.C. § 2702(a). Given this language along with the determination that the CWA and OPA do not regulate groundwater, the Fifth Circuit

determined that OPA does not provide a cause of action for discharges onto land with seepage into groundwater which have an "indirect, remote and attenuated connection" to navigable waters. 250 F.3d at 272. The plaintiff's general allegations that the groundwater seeps into a navigable water or that the navigable water is downgradient from the polluted property did not make the required connection. *Id.* The Court did not determine whether discharges to groundwater with a "close, direct and proximate link" to protected waters would be covered by OPA. *Id.*

- In *U.S. v. Hong*, 242 F.3d 528 (4th Cir. 2001), the Fourth Circuit upheld the conviction of James Hong for negligent violations of the Clean Water Act's pretreatment requirements under the responsible corporate officer doctrine. Although Mr. Hong was not identified as an officer of the company, the defendant's relationship to the company was determinative of his status as a responsible corporate officer. The court stated: "the gravamen of liability as a responsible corporate officer is not one's corporate title or lack thereof; rather, the pertinent question is whether the defendant bore such a relationship to the corporation that it is appropriate to hold him criminally liable for failing to prevent the charged violations." *Id.* at 531. The court further considered whether the defendant had the "responsibility and authority either to prevent in the first instance, or promptly to correct, the violation complained of, and that he failed to do so." *Id.* at 531, *citing United States v. Park*, 421 U.S. 658 (1975). The court noted that Mr. Hong controlled the corporation's finances and substantially all its operations, was involved in the purchase of the treatment system associated with the violation, and knew of the treatment system's potential deficiencies in treatment capacity.

In Texas

In Texas, the appeals courts issued opinions granting contribution protection for parties settling with the state under the Solid Waste Disposal Act, finding that contamination is not, in some circumstances, a trespass and rejecting a groundwater districts denial of a well permit based on a theory of "disproportionate takings." Several cases filed in district courts reflect a trend of litigation over mold contamination in structures.

- The Houston Court of Appeals determined that a settlement with the State of Texas under the Solid Waste Disposal Act provided contribution protection for the settling party. *Compton v. Texaco*, 42 S.W.3d 354 (Tex. App. - Houston[14th Dist.] 2001, no writ). In *Compton*, both Texaco and Winn's Stores were identified as PRPs by the TNRCC for contamination at a

site near San Antonio, Texas. Winn's filed for bankruptcy in 1994, and the bankruptcy trustee Compton paid money into the general remediation fund administered by the State in exchange for a release from future environmental liability. Texaco subsequently entered into a settlement agreement with the State and agreed to remediate the property. Texaco's settlement stated that the settlement resolved all liability to the State for the site. *Id.* at 356.

Compton sued Texaco seeking statutory contribution and common law indemnity. The court rejected Compton's claims. In interpreting the effect of section 361.277(b) of the Solid Waste Disposal Act, the court analogized to the CERCLA contribution protection and determined that Compton's claims for contribution were barred by Texaco's settlement. *Id.* at 359-360. Compton's common law indemnity claim was rejected on other grounds. *Id.* at 361. In dicta, the Court indicated that a right to a common law indemnity would be contrary to the statutory contribution scheme in the Solid Waste Disposal Act. *Id.* at 362.

- In *Z.A.O., Inc. v. Yarbrough*, the El Paso Court of Appeals was called on to determine when contamination constitutes a trespass. -- S.W.3d –, 2001 WL 103600 (Tex.App. -- El Paso 2001 no writ). The court followed *Taco Cabana, Inc. v. Exxon Corp.*, 5 S.W.3d 773 (Tex. App. – San Antonio 1999, writ denied) and determined that a trespass did not occur where the state had given notice that any contaminants that existed did not rise to actionable levels. *Id.* at *9-10.

- In *South Plains Lamesa Railroad, Ltd. v. High Plains Underground Water Conservation District No. 1*, the Amarillo Court of Appeals determined that the District had erred when it denied/revoked water well permits for "disproportionate taking" of groundwater in relation to tract size. – S.W.3d –, 2001 WL 387386 (Tex.App. – Amarillo 2001 no writ). Kitten Trust and South Plains applied for a well permit to install a well and produce water on a tract of land owned by South Plains. After a complicated procedural history, the District ultimately denied one application and, after initially granting another application, revoked the permit. *Id.* at *2. The District stated that the denial/revocation was "to prevent disproportionate taking of water." *Id.* The court found that the District's rules did not contain a provision allowing the denial of a permit on these grounds. *Id.* at *6. Further, the court found that the "disproportionate taking" standard is inconsistent with the rule of capture and is not "clearly granted" to the District by the provisions of the Water Code allowing the Legislature to establish groundwater conservation districts. *Id.* at *7.

- A recent case in Texas and cases throughout the country indicate the rise of a new toxic tort - - mold litigation. Mold litigation may take many forms including personal injury, insurance bad faith, construction defects, products liability or breach of warranty. Litigation usually revolves around disputes over the severity of the problem, the appropriate remediation measures and causation (both of the mold itself and of resulting personal injuries). Recently, a jury in Austin returned a $32 million verdict ($6.2 million actual damages, $12 million punitive damages, $5 million for mental anguish and $8.9 million in attorney fees) for homeowners who sued their insurer alleging it mishandled the homeowner's claims for mold damaged by failing to timely deal with a water leak. Judgment has not been entered to date. *Mary Ballard v. Fire Insurance Exchange*, No. 99-05252, Texas Dist. Travis Co. In another insurance bad faith case, a homeowner settled with its insurer for $1.5 million, but only after two and one-half weeks in trial. *Charles Blum v. Chubb Custom Insurance Co.*, No. 99-3563-E, Texas Dist., Nueces Co., as reported in *Mealey's Litigation Report: Mold*, Jan. 2001 at p. 3.

Other Opinions of Interest

- *Baltimore Scrap Corp. v. David J. Joseph Co.*, 237 F.3d 394 (4th Cir. 2001), *cert. denied*, 69 U.S.L.W. 3701 (U.S. June 18, 2001) (No. 00-1592) deals with issues that may arise in citizen's suits. The Fourth Circuit held that a competitor was allowed to fund a citizen group's permit appeal regarding one of its competitors without violating antitrust laws. In the case, the City of Baltimore granted a permit for a shredder to Baltimore Scrap. David J. Joseph Co., a competitor, covertly funded a citizens group's appeal in opposition of the permit. Baltimore Scrap then sued David J. Joseph Co. for antitrust violations. The court held that the Noerr-Pennington doctrine, which guarantees citizens their First Amendment right to petition the government for redress without antitrust liability, protected Joseph's activities. *Id.* at 398.

- In *City of Detroit v. Simon*, 247 F.3d 619 (6th Cir. 2001), the City of Detroit sued former owners and lessees of property it had acquired through condemnation for remediation of contamination on the property. Although the case dealt with several issues, one of particular interest is the incorporation of state clean up standards based on property usage. The Sixth Circuit held that the defendants were liable only for those costs necessary to reach the state's industrial clean up levels because the site had "a long history of industrial use." *Id.* at 630. To require a more stringent

clean, according to the court, would be a windfall for the property owner. *Id.*

- The Fifth Circuit found that the decision of the Fish and Wildlife Service and National Marine Fisheries Service to not designate "critical habitat" for the Gulf sturgeon was arbitrary and capricious. *Sierra Club v. Fish and Wildlife Service*, 245 F.3d 434 (5th Cir. 2001). The Services determined that it was "not prudent" under 50 C.F.R. § 424.12(a)(1) to designate critical habitat. Specifically, the Services determined that designation would provide no additional benefit to the sturgeon because virtually any action adversely modifying of destroying the sturgeon's critical habitat would also jeopardize the species existence, requiring consultations. *Id.* at 439. Specifically, section 7(a)(2) of the Endangered Species Act required consultations for federal actions "likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of the species' critical habitat. The Services had defined to "jeopardize the continued existence" to be an action that would "reduce appreciably the likelihood of both the survival and recovery of a listed species. . . ." 50 C.F.R. § 402.02.

  The Fifth Circuit found that the section 402.02's definition, which in effect limited consultation to action affecting both the "survival and recovery" of a species to impose a "higher threshold that the statutory language permits." *Id.* at 442. The statute requires consultation even if an action only affects the recovery of a listed species. Because the court found that section 402.02 was invalid, the Services reliance upon this rule in its decision rendered the decision to be arbitrary and capricious. *Id.* at 447.

- A law firm that, in a previous lawsuit, represented a group of defendants in a CERCLA action was disqualified from representing a plaintiff in a case pursuing cleanup costs against one of the members of the defense group at the other site. *City of Kalamazoo v. Michigan Disposal Service Corporation*, 125 F.Supp.2d 219 (W.D.Mich. 2000). In 1992, the law firm became common counsel for a group of defendants at the West KL Avenue Landfill site. The case was dismissed in 1997, but the firm continued to be a repository for records from the litigation. In 1999, the law firm began representing the City of Kalamazoo in a contribution action associated with the Cork Street Landfill. One of the Cork Street Landfill defendants had been a member of the joint defense group for the West KL Avenue Landfill suit. *Id.* at 221. The court disqualified the law firm. The court found that the firm, as group counsel in the prior suit, had an attorney-client relationship with the members of the joint defense group. *Id.* at 231. The

court relied upon the provision of the joint defense agreement in making its determination. It noted that the agreement specifically addressed the fact that counsel for one defendant did not become counsel for the other members of the joint defense group merely by participating in the group. The failure to include a similar provision regarding common counsel was a key factor in the court's decision. *Id.* at 233. The court also noted that as common counsel, the law firm possessed confidential information, such as defense strategy, and that the two sites were substantially related, involving many of the same defendants. *Id.* at 240-241.

Mary Simmons Mendoza

Mary Mendoza is an associate in the Austin office of Haynes and Boone, LLP. Her practice specializes in environmental counseling and litigation. She received her J.D. with honors from the University of Texas in 1994 and her B.S. in Civil Engineering with highest honors from the University of Texas in 1991. Ms. Mendoza is a member of the Executive Committee of the State Bar of Texas Environmental and Natural Resources Law Section.

Janis Boyd Hudson
Environmental Law Division
Texas Natural Resource Conservation Commission
P. O. Box 13087
Austin, TX 78711-3087
Telephone: 512/239-0466
Fax: 512/239-0606

Relevant Legal Experience

Staff Attorney, Air Section, Environmental Law Division, 1993 - present
Hearings Examiner, Texas Air Control Board, 1992-1993

Professional Designations and Memberships

Board Certified, Administrative Law, Texas Board of Legal Specialization, 2000
Member, State Bar College 1995 - present
Member, State Bar of Texas, Environmental & Natural Resources, Administrative & Public Law, and Government Lawyers Sections
Member, Travis County Bar Association, Administrative Law Section

Education

South Texas College of Law, Houston, Texas, J.D. 1990
University of Texas at Austin, Austin, Texas, B.B.A., 1979

See Also:	State Implementation Plans - General Information	Clean Air Rules and Plans Adopted on April 19, 2000
	30 TAC Chapter 114 Exit	30 TAC Chapter 117 Exit

Houston-Galveston Clean Air Rules and Plans

On December 6, 2000, the Commission adopted revisions to 30 TAC Chapters 101, 114, 115 and 117 and to the State Implementation Plan (SIP). The various rules and the narrative make up the Attainment Demonstration SIP, which serves as the required next step for the Houston-Galveston area to demonstrate attainment with the one-hour National Ambient Air Quality Standard for ozone.

Summary of Commission Action on Dec. 6

View or download a summary that describes the adopted rules and plans.

Word Perfect (Help with downloading files.)
Portable Document Format (PDF).(Help with PDF.)

Entire Text of Adopted Rules and SIP Narratives

NOTE: Most, but not all of the adopted rules and plans are now available from this page. The remaining (listed as Executive Director's Recom.) will be posted pending completion of the changes made by the commission during its Dec. 6 meeting. Please visit this page frequently to view all the adopted rules and plans as they become available.

Rule Log Number	Short Title	Staff Contact	Adoption (Portable Document Format)	Adoption (WordPerfect 8.0)
1998-089-101-AI	Emissions Banking and Trading	Matt Baker 512/239-1091	Adoption Chapter 101 Chapter 115 Re. Credits Chapter 117 Re. Credits	Adoption Chapter 101 Chapter 115 Re. Credits Chapter 117 Re. Credits
2000-011-SIP-AI	HGA Post-1999 ROP/Attainment Demonstration SIP	Mike Magee 512/239-1511	Adoption Figures Appendices Response to Comments	Adoption Figures Appendices Response to Comments

			City of Houston Agrmt. Continental Airl. Agrmt. Southwest Airl. Agrmt.	City of Houston Agrmt. Continental Airl. Agrmt. Southwest Airl. Agrmt.
2000-011A-114-AI	Inspection/Maintenance	Bob Wierzowiecki 512/239-1769	Adoption I/M SIP Appendix G Appendix K	Adoption I/M SIP
2000-011B-114-AI	Construction Equipment Operating Restriction Draft Emission Reduction Plan Guidance	Ken Gathright 512/239-0599	Adoption	Adoption
2000-011C-114-AI	Accelerated Purchase of Tier 2/Tier 3 Diesel Equipment Draft Emission Reduction Plan Guidance	Ken Gathright 512/239-0599	Adoption	Adoption
2000-011D-114-AI	Cleaner Diesel Fuel	Morris Brown 512/239-1438	Adoption	Adoption
2000-011E-114-AI	Airport Ground Support Equipment	Roland Castaneda 512/239-0774	Withdrawal	Withdrawal
2000-011F-114-AI	Low Sulfur Gasoline	Morris Brown 512/239-1438	Withdrawal	Withdrawal
2000-011G-114-AI	California Spark-Ignition Engines	Roland Castaneda 512/239-0774	Adoption	Adoption
2000-011H-117-AI	Point Source NO_x Controls	Randy Hamilton 512/239-1512 Eddie Mack 512/239-1488	Adoption	Adopted
2000-011I-115-AI	Volatile Organic Compound (VOC) Reasonably Available Control Technology (RACT) Revisions	Eddie Mack 512/239-1488	Adoption	Adoption
2000-011J-110-AI	Residential and Commercial Air Conditioners	Bill Jordan 512/239-2583	Withdrawal	Withdrawal
2000-011K-114-AI	Diesel Emulsion	Bruce Uphaus	Withdrawal	Withdrawal

		512/239-4528		
2000-011M-114-AI	NO_x Reduction Systems	Bruce Uphaus 512/239-4528	Withdrawal	Withdrawal
2000-011N-114-AI	Vehicle Idling Restrictions	Morris Brown 512/239-1438	Adoption	Adoption
2000-011O-114-AI	Small, Spark-Ignition Engine Operating Restrictions Draft Emission Reduction Plan Guidance	Roland Castaneda 512/239-0774	Adoption	Adoption

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TNRCC Rules and Other Actions Challenged In State and Federal Court In the HGA SIP Cases

As of July 30, 2001

(All cases were filed in early 2001)

Case	TNRCC Doc. No. 2000 0717-RUL (restrictions on emissions from industrial and electrical generating stationary sources)	TNRCC Doc. No. 2000 0748-RUL (mass cap on emissions)	TNRCC Doc. No. 2000 0662-RUL (hours of operation of diesel non-road vehicles)	TNRCC Doc. No. 2000 0694-RUL (composition of fleets of diesel non-road vehicles)	TNRCC Doc. No. 2000 0718-RUL (low-emission diesel fuel)	TNRCC Doc. No. 2000 0773-SIP (ordering SIP revisions to be submitted to EPA)	2000-0772-RUL (commercial lawn and garden equipment hours of operation)	2000-0638-RUL (motor vehicle inspection and maintenance)	Case status
1. *BCCA Appeal Group et al.*	✔	✔	✔	✔	✔	✔			Stayed pending rule amendments and science evaluation
2. *Houston Construction Industry Coalition* (state court)			✔	✔					Stayed pending being mooted by legislatively-directed rule changes
3. *Texas Oil & Gas Ass'n*					✔				Settlement talks under way based on rule amendments and legislation
4. *Texas Motor Transportation Ass'n*					✔				Settlement talks under way based on rule amendments and legislation
5. *Brazoria, Montgomery, and Ft. Bend Counties*	✔		✔				✔	✔	
6. *TXI Operations, LP*	✔	✔							
7. *Houston Construction Industry Coalition* (federal case)			✔	✔					Stayed pending being mooted by legislatively-directed rule changes

CAUSE NO. GN-100210

COPY

BCCA APPEAL GROUP, ENTERPRISE PRODUCTS OPERATING L.P., EQUISTAR CHEMICALS, LP, LYONDELL CHEMICAL COMPANY, LYONDELL-CITGO REFINING L.P., RELIANT ENERGY, INCORPORATED	§	IN THE DISTRICT COURT
vs.	§	OF TRAVIS COUNTY, TEXAS
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, ROBERT HUSTON, CHAIRMAN, JOHN BAKER AND RALPH MARQUEZ, COMMISSIONERS, AND JEFFREY SAITAS, EXECUTIVE DIRECTOR	§	250th JUDICIAL DISTRICT

PLAINTIFFS' FIRST AMENDED PETITION FOR DECLARATORY JUDGMENT AND INJUNCTIVE RELIEF

COME NOW, BCCA Appeal Group, Enterprise Products Operating L.P., Equistar Chemicals, LP, Lyondell Chemical Company, Lyondell-CITGO Refining L.P., and Reliant Energy, Incorporated (collectively, "Plaintiffs") complaining of the unlawful and unconstitutional actions of the Texas Natural Resource Conservation Commission ("TNRCC") and the other defendants identified herein (who together with the TNRCC are collectively referred to in this First Amended Petition as "Defendants"). The Defendants' flawed promulgation of rules imposing unprecedented, unnecessary, impractical and infeasible measures aimed at reducing the emissions of nitrogen oxides ("NO_X") in an eight-county region of Texas known as the Houston-Galveston Area ("HGA") (collectively, the "NO_X Rules") is the basis of

this suit. Based on flawed science, these rules would effectively impose a no-growth mandate on a substantial segment of the HGA economy, and result in over 75,000 fewer new jobs in the next decade. Plaintiffs would respectfully show that the Defendants have violated the Administrative Procedure Act ("APA"), the Texas Clean Air Act ("TCAA"), and the Constitutions of the State of Texas and the United States in proposing and adopting these rules. For the reasons set forth in this Petition, the Plaintiffs are entitled to a temporary injunction ordering the Defendants to withdraw the NO_X Rules from EPA consideration and staying the enforcement of the NO_X Rules; and, upon the trial of this case, a final judicial declaration that the NO_X Rules are invalid, and a permanent injunction ordering Defendants to withdraw the NO_X Rules from EPA consideration and barring enforcement of the NO_X Rules.

DISCOVERY PLAN

1. This is not a suit for monetary relief. Pursuant to Rule 190.3 of the Texas Rules of Civil Procedure, discovery will be conducted under a Level 3 motion and order.

PARTIES

2. Plaintiff BCCA Appeal Group (the "Group") is a non-profit corporation existing under the laws of the State of Texas, with its principal place of business at 1221 McKinney Street, Suite 1600, Houston, Texas 77252-2583.

3. The Group is an association of business entities whose members share a common purpose to advance the goal of attainment of the national ambient ozone standard without seriously impairing the economic health of the HGA economy. The members of the Group have standing to bring the claims asserted by the Group on their behalf based on the substantial impact that the Defendants' enforcement of the invalid rules will have on the members' industrial operations in the HGA. The interest that the Group seeks to protect, the advancement of the

common business interests of the members with respect to their mutual goals of clean air and a strong economy, is germane to the association's purpose. The Group's claims for declaratory and injunctive relief will inure to the benefit of its members and do not require the participation of its individual members. For these reasons, the Group has standing to bring the claims set forth in this First Amended Petition in its own name.

4. Plaintiff Enterprise Products Operating L.P. is a limited partnership existing under the laws of the State of Delaware, with its principal place of business in Houston, Texas.

5. Plaintiff Equistar Chemicals, LP is a limited partnership existing under the laws of the State of Delaware, with its principal place of business in Houston, Texas.

6. Plaintiff Lyondell Chemical Company is a corporation existing under the laws of the State of Delaware, with its principal place of business in Houston, Texas.

7. Plaintiff Lyondell-CITGO Refining L.P. is a limited partnership existing under the laws of the State of Delaware, with its principal place of business in Houston, Texas.

8. Plaintiff Reliant Energy, Incorporated is a corporation existing under the laws of the State of Texas, with its principal place of business in Houston, Texas.

9. Plaintiffs other than the Group own and operate industrial facilities in the HGA. The NO_X Rules adopted by Defendants will compel these Plaintiffs to invest immediate and substantial capital resources to research, design, purchase, fabricate, and install unproven NO_X emissions control technologies.

10. Defendant TNRCC, an agency of the State of Texas, has filed its original answer and entered its appearance in this action.

11. Defendant Robert Huston, the Chairman and one of the three Commissioners of the TNRCC, has filed his answer and entered his appearance in this action.

12. Defendant John Baker, a Commissioner of the TNRCC, has filed his answer and entered his appearance in this action.

13. Defendant Ralph Marquez, a Commissioner of TNRCC, has filed his answer and entered his appearance in this action.

14. Defendant Jeffrey Saitas, the Executive Director of the TNRCC, has filed his answer and entered his appearance in this action.

15. Defendants Huston, Baker, Marquez, and Saitas are necessary parties for purposes of the injunctive relief requested by Plaintiffs.

JURISDICTION

16. The validity or applicability of a rule may be challenged by an action for declaratory judgment under Section 2001.038 of the Texas Government Code.

17. Under Section 2001.035 of the Texas Government Code, a court may void a rule that an agency fails to adopt in substantial compliance with the procedural requirements of Sections 2001.0225 through .034 of the Texas Government Code.

18. Under Section 2001.0225(f) of the Texas Government Code, a major environmental rule not proposed and adopted in accordance with the requirements of Section 2001.0225 is invalid.

19. Pursuant to Section 382.032 of the Texas Health & Safety Code, a person affected by a ruling, order, decision, or other act of TNRCC may appeal the action.

20. Under Section 5.351 of the Texas Water Code, a person affected by a ruling, order, decision or other act of TNRCC may file a petition to suspend that act.

21. Chapter 37 of the Texas Civil Practice & Remedies Code allows a person whose rights, status or other legal relations are affected by a statute to obtain a declaration related to any question of construction or validity arising under the statute.

22. Section 65.021 of the Texas Civil Practice & Remedies Code gives this Court jurisdiction to hear and determine an application for a writ of injunction.

23. This action also arises under Article I, Section 19 of the Texas Constitution and the Fourteenth Amendment to the United States Constitution.

24. This First Amended Petition has been filed in a timely manner and meets all procedural deadlines and prerequisites necessary to invoke the jurisdiction of this Court under the referenced statutes.

VENUE

25. Venue is proper in this Court under Sections 2001.0225, 2001.035, and 2001.038 of the Texas Government Code, Section 5.354 of the Texas Water Code, Section 382.032 of the Texas Health & Safety Code, and Sections 15.014, 15.016, and 65.021 of the Texas Civil Practice & Remedies Code.

FACTS

26. By this suit, Plaintiffs seek the Court's review of the many procedural and substantive errors committed by the Defendants in their promulgation of unprecedented rules aimed at reducing the emissions of NO_X by industrial facilities, construction equipment, on-road and off-road engines, and other sources in the HGA.

27. By eleven Orders issued on December 20, 2000, the Defendants concluded the flawed rulemaking proceeding that is the subject of this rule challenge. While Plaintiffs believe that each of the eleven Orders issued by the Defendants suffers from many of the procedural and

substantive errors set forth in this First Amended Petition, this challenge is focused on six of the Orders, which adopted amendments to rules in Chapters 101, 114 and 117 of Title 30 of the Texas Administrative Code and finalized revisions to the Texas State Implementation Plan ("SIP") for the HGA ozone nonattainment area. *See* Texas Natural Resource Conservation Commission, Orders Adopting Amendments to Rules and Revisions to the State Implementation Plan, Docket Nos. 2000-0717-RUL, 2000-0748-RUL, 2000-0662-RUL, 2000-0718-RUL, 2000-0694-RUL, 2000-0773-SIP (Dec. 20, 2000). Each of the NO_X Rules is derived from fundamentally erroneous photochemical air dispersion modeling, which significantly biased the NO_X control strategies undertaken by Defendants. The modeling analysis was intended to predict the effect of the NO_X Rules in reducing atmospheric ozone levels. However, the Defendants' misapplication of the ozone model rendered its results wholly unreliable as an ozone predictor. Lacking a sound scientific basis, the NO_X Rules lack a reasoned justification, exceed the Defendants' statutory authority, are arbitrary and capricious, and violate the Texas and United States Constitutions. Plaintiffs specifically complain of the six Orders as follows:

(A) In Docket No. 2000-0717-RUL, the Defendants ordered that all large stationary or "point" sources of NO_X in HGA, including virtually every industrial facility with a large boiler, turbine, heater, stationary engine, or other fired equipment, be retrofitted, curtailed or shut down to eliminate an average of 90% of its NO_X emissions from its baseline levels (the "Point Source Rule"). These limits exceed applicable federal standards and no regulatory agency in the world has ever before mandated limits even approaching this scope and stringency. In fact, broad retrofit standards at this level are unwarranted and infeasible and cannot be reasonably justified. Even attempting this level of reductions would require the widespread application of an ammonia-based treatment technology, which would have collateral emissions

and health impacts that the Defendants failed to address. During the public comment period, Plaintiffs committed to an alternate reduction proposal modeled on the overall reductions targeted by California's South Coast Air Quality Management District, the most stringent standards reliably achieved in practice. Defendants, however, unreasonably rejected the Plaintiffs' alternate proposal without offering any reasonable justification for doing so.

(B) In Docket No. 2000-0748-RUL, as part of an area-wide cap-and-trade implementation program (the "Trading Rule"), the Defendants ordered an impossibly aggressive schedule for achieving the reductions mandated by the Point Source Rule, requiring the bulk of the reductions by the end of 2004. The Plaintiffs voiced their concerns during the public comment period that the necessary design, engineering and human resources needed to achieve these reductions cannot practically be applied across HGA on this unrealistically aggressive schedule. Defendants unreasonably rejected these concerns without justification.

(C) In Docket No. 2000-0662-RUL, the Defendants banned the use of all diesel construction and industrial equipment of 50 horsepower and greater during the morning hours of 6 AM to noon during daylight savings time in the following counties in HGA: Brazoria, Fort Bend, Galveston, Harris, and Montgomery (the "Construction Shift Rule"). According to the public comments filed by the construction industry coalitions, some 30,000 units of equipment will be affected, and some 458,000 construction workers will be required to delay their physically challenging work to the heat of the Houston summer afternoon, with attendant work disruptions, delays of construction schedules, and adverse health effects. The Defendants, however, failed to properly or adequately consider these consequences of their order. In adopting the Construction Shift Rule, Defendants also assumed that the work can be "shifted." The

Defendants never addressed the impact of the operating restriction on businesses that operate their equipment twenty-four hours a day, seven days a week.

(D) In Docket No. 2000-0718-RUL, the Defendants ordered a special Texas-only blend of diesel fuel (the "Diesel Fuel Rule"), which departs significantly from and exceeds recent federal fuel content standards. Plaintiffs believe that Defendants' rule is beyond the Defendants' statutory authority and would disrupt the fuel supply to the entire State of Texas while producing virtually the same NOx reductions as those that would result from the federal rules.

(E) In Docket No. 2000-0694-RUL, the Defendants ordered the accelerated purchase of non-road diesel equipment meeting new federal "Tier 2/Tier 3" emission standards before federal law would require such equipment to be purchased and used (the "Accelerated Purchase Rule"). This rule runs contrary to Defendants' powers in extending a federal standard to equipment not regulated by the federal standard.

(F) In Docket No. 2000-0773-SIP, the Defendants ordered revisions to the SIP, to be submitted to the U.S. Environmental Protection Agency ("EPA") under the federal Clean Air Act, 42 U.S.C. § 7410. These revisions incorporated the erroneous modeling analysis, each of the foregoing defective rules, and other rules and commitments to adopt future rules. The SIP was submitted to EPA on December 20, 2000. If approved by EPA, this flawed TNRCC rule package will become a federally enforceable part of the federal SIP regulations for Texas at 40 C.F.R. §§ 2270-2299, even before proper review of the Defendants' actions.

28. Despite the drastic impact of the NO_X Rules on regulated entities in the HGA and the public as a whole (considering the concentration of a substantial percentage of the nation's petrochemical operations in the HGA), the Defendants committed numerous procedural errors

that individually and collectively have deprived the public of the meaningful opportunity to comment on the rules as required by the APA. The NO_X Rules were proposed by the TNRCC on August 9, 2000, and were published in the *Texas Register* on August 25, 2000. 25 Tex. Reg. 8137, *et seq.* (2000). Defendants did not provide to the public adequate data to evaluate the rules. Examples of critical data gaps identified by Plaintiffs during the public comment period include the absence of accurate information on the cost and economic impact of the rules and adequate information on the modeling analysis supporting the rules. In fact, the Defendants have shrouded their modeling in secrecy. With respect to the costs and economic impacts, Defendants presented only fragmentary cost information in response to requests for information.

29. The Texas Legislature has mandated that major environmental rules such as the NO_X Rules be subjected to a comprehensive regulatory cost-benefit analysis prior to their proposal. Tex. Gov't Code § 2001.0225. Despite this clear statutory mandate, Defendants wholly failed to perform a Regulatory Impact Analysis for the NO_X Rules as required by Section 2001.0225. Defendants also wholly failed to comply with other statutory procedural requirements that are designed to ensure that the public has adequate notice of the full impact of rules proposed by a state regulatory agency. In proposing the NO_X Rules, the Defendants failed to prepare an adequate fiscal note and note about public benefits and costs required by Section 2001.024 of the Texas Government Code, or an adequate small business and micro-business assessment required by Sections 2001.024 and 2006.002 of the Texas Government Code. In addition, the Defendants wholly omitted a local employment impact statement (required by Sections 2001.024 and 2001.022 of the Texas Government Code) and a takings impact assessment (required by Section 2007.043 of the Texas Government Code).

30. Additional procedural errors were committed by the Defendants in the promulgation of the NO_X Rules. The Defendants substantially deviated from their own established policies in failing to make the rules and accompanying preamble available for public review prior to the consideration of such rules by the TNRCC Commissioners on December 6, 2000. Moreover, there are discrepancies between the text of the rules and preamble as adopted by the Commissioners at a public meeting on December 6, 2000, and the text of the rules and preamble as issued by the TNRCC on December 20, 2000, which raise serious due process problems concerning the procedure by which the NO_X Rules were made final.

31. In addition to these fatal procedural errors, the NO_X Rules are also subject to numerous substantive errors that individually and collectively render the NO_X Rules unlawful. First, the NO_X Rules have no legitimate basis and are based on demonstrably flawed scientific modeling. Defendants have predicated the need for the stringent emission limits adopted in the NO_X Rules on photochemical modeling of an ozone episode that took place over four days, encompassing September 8-11, 1993. Out of these four days, the modeling results for only one day, September 8, 1993, were selected as the basis for the rules. However, the modeling results for September 8th substantially over-predict ozone concentrations. In southern Harris County, the base case *modeling* predicted a maximum ozone concentration of 187 parts per billion ("ppb"). Data from a nearby *monitoring* site on that day indicated that the *actual* ozone concentration in this area was 114 ppb. In other words, the model over-predicted the ozone concentration by more than 70 ppb, a bias of over 60 percent. Because of the model's over-prediction of ozone concentration, the Defendants set their reference point for NO_X reductions artificially high. Therefore, the reductions adopted by Defendants may be far greater than necessary to achieve the National Ambient Air Quality Standard for ozone. In addition to

Plaintiffs' expressed concerns about the problems with the agency's modeling during the public comment period, the EPA and the TNRCC's own scientific consultants also cautioned the Defendants about using these modeling results. Despite these concerns, the Defendants adamantly refused to admit their error, and retained September 8th as the controlling day for setting emission limits. In doing so, the Defendants rejected valid technical arguments provided by EPA, public commenters, and their own technical consultants. At a time when they were establishing unprecedented emission limits, the Defendants elected not to account for the model's aberrant over-prediction of ozone concentrations, thus rendering each of the orders arbitrary and capricious, and without a reasoned justification or a legitimate factual basis.

32. The Point Source Rule is also substantively unlawful. If the Point Source Rule is enforced as adopted, many of the 32 electric utility boilers, 554 larger industrial boilers, 193 gas turbines and duct burners, 462 internal combustion engines, 1367 fired process heaters and furnaces and 13 refinery catalytic cracking units in the HGA will be required to be either shut down or retrofit with a combination of (1) advanced combustion and process modifications and (2) an add-on flue gas treatment process modeled on a complex and costly ammonia-based technology known as Selective Catalytic Reduction ("SCR"). The Defendants did not set the Point Source Rule at levels demonstrated to have been reliably achieved in practice in retrofit applications. The Defendants instead set the rule at the outer bounds of levels observed during demonstrations of combined combustion controls and SCR on *new* units. Engineering experts explain that it will not be feasible for many sources to be retrofitted to achieve the emission limits in the Point Source Rule, and many sources may be required to shut down. For example:

(A) The rule's emission limit for ethylene pyrolysis reaction furnaces is 0.010 pounds of NO_X per million BTU ("lb./MMBtu"). To Plaintiffs' knowledge, no such furnace in

the world has been retrofitted to achieve this limit. In fact, Plaintiffs know of no new furnace that has reliably performed to this limit. In other words, if the Point Source Rule is enforced, the operators of over 200 ethylene pyrolysis reaction furnaces in HGA will be attempting, on an expedited basis, to do something *no one* has ever done before, subject to massive penalties if they are unable to do so. These furnaces are very large, complex chemical process reactors. Each such experimental retrofit is expected to cost millions of dollars, and require extensive re-engineering of the affected chemical processes, with no assurance of success in meeting the stringent 0.010 lb./MMBtu limit.

(B) The rule's emission limit for gas-fired electric generating boilers is also set at .010 lb./MMBtu. This limit is lower than any previously established under state or federal authority. It is *95 percent* below TNRCC's current emission limit for existing major stationary sources of NO_X, for which compliance was due in November 1999. It is *93 percent* below the limit that the EPA now imposes on *new* steam electric generating units under the federal New Source Performance Standards. Engineers explain that because of the configuration on existing electric generating boilers, it will be impractical for most of the utility boilers in HGA to be retrofitted to meet this limit.

(C) The emission limit for stationary gas turbines, set at 0.015 lb./MMBtu, is also impractical to meet on a retrofit basis. According to engineers, it is not technically feasible to achieve this emission limit on many existing turbines in HGA.

Each of these emission limits, therefore, are arbitrary and capricious, lack a legitimate scientific basis, and cannot be reasonably justified.

33. The emission limits in the Point Source Rule are predicated on the widespread use of the ammonia-based control technology known as SCR. SCR technology requires the

construction of a catalyst bed, into which flue gases are introduced along with a stream of ammonia. Some of the ammonia reacts with and transforms the NO_X in the flue gas. The rest is emitted from the SCR into the atmosphere. This is known as "ammonia slip." If enforced, the Point Source Rule is expected to cause ammonia emissions in HGA to increase by up to 23 million pounds per year. This increase will bring some HGA counties to the top of EPA's Toxic Release Inventory for ammonia. Ammonia plays a key role in the formation of fine particulate matter, another pollutant regulated under the federal Clean Air Act ("CAA") due to health concerns. The projected releases associated with the Point Source Rule will increase the ambient concentration of fine particulate matter in HGA by 0.2 to 0.5 micrograms per cubic meter. Thus, an unintended consequence of the Point Source Rule will be to increase the ambient concentration of fine particulate matter, a pollutant that is targeted by EPA for additional regulation under the CAA due to health concerns. Defendants failed to account for the environmental impacts and public health risks of increased ammonia and fine particulates in promulgating the Point Source Rule. Defendants failed to inform the public of these considerations in proposing the rule. Defendants also failed meaningfully to respond to public comments raising this issue, which included an EPA report concluding that the environmental impacts of ammonia associated with applying SCR may outweigh the marginal NO_X benefits of its use on certain sources. Plaintiffs' alternate proposal, rejected by TNRCC, would apply combustion controls – not SCR – to most point sources.

34. The NO_X Rules also contain the Construction Shift Rule, a morning ban on construction and industrial equipment activity in HGA. According to comments from the construction industry, if the rules are enforced as proposed, some 30,000 units of diesel equipment of 50 horsepower and greater in the HGA, including cranes, excavators, pavers,

compactors, trenchers and boring rigs, would be banned from operating between 6:00 a.m. and noon during the months when daylight savings time is observed. Roughly 17,000 of these units are in the construction industry, with the remainder in port and industrial plant service. The result would be wholesale delays in construction projects, and a TNRCC mandate that an estimated 458,000 construction workers shift their physically challenging work to the heat of the Houston afternoon and into the night. The Construction Shift Rule will turn normal construction activity such as road work, heavy materials loading and unloading, and plant maintenance in the morning hours into a punishable offense. Defendants' decision to push this work into the evening and night will have the following major adverse impacts:

(A) The shift will take a heavy toll on worker health, as summer morning work is pushed to the heat of the afternoon. The shift will disrupt families as workers will be forced to work later in the afternoon and at night.

(B) The efficiency of construction work will diminish during nighttime construction.

(C) Construction, loading and maintenance activities and projects in HGA will be disrupted on a massive scale, especially those relying on a full-day or even 24-hour schedule.

35. The Construction Shift Rule does not, according to the construction industry, reduce the emission of air contaminants. The rules merely push those emissions to a different time of the day. Although Defendants asserted that this shift yields "an equivalent reduction," Defendants have not identified reliable science to support this claim. In fact, emissions associated with construction may actually increase as a result of the Construction Shift Rule, because more equipment will have to operate to compensate for the inefficiencies of compressed schedules and nighttime construction. The expanded use of gasoline and diesel generators to

provide lighting for nighttime, rather than daylight, activities will also increase the amount of total NO_X emissions from construction projects. The "shifted" nighttime emissions will influence the next day's atmosphere, an effect that Defendants' modeling ignored.

36. The NO_X Rules also include the Diesel Fuel Rule, which mandates a unique, Texas-only blend of diesel fuel across Texas. The Diesel Fuel Rule contains a combination of fuel specifications, including sulfur, cetane and aromatics limits, to be found in no other fuel in the United States. These limits exceed the specifications for diesel fuel mandated by a recent federal regulation addressing diesel fuel on a nationwide basis. The recent federal rule is expected to provide virtually identical NO_X reduction benefits at a much lower cost to the public. By departing from the federal diesel standard, the Defendants' rule will create unjustified market risk and supply uncertainty in Texas, and introduce a higher production cost, for virtually no benefit.

37. In the Accelerated Purchase Rule, the Defendants ordered the accelerated purchase of non-road diesel equipment meeting new federal "Tier 2/Tier 3" emission standards, before such equipment would be required under federal law to be purchased and used. This rule also lacks a reasoned justification, and runs contrary to Defendants' powers in extending a federal standard to equipment not regulated by the federal standard.

38. The impact of the NO_X Rules on local businesses, private citizens, and the region's economy will be staggering, as unreasonable emission controls impair future economic growth and development. It is estimated that in excess of $13.8 billion in capital costs will be spent in efforts to comply with limits that are not expected to be technically achievable for many sources. The Plaintiffs' alternate proposal, however, achieves the same air quality goals with lesser economic and social disruption. A recent study by Dr. Barton Smith of the University of

Houston and Dr. George Tolley of the University of Chicago estimates that the NOx Rules, as adopted, will result in the loss of 108,400 new jobs by 2010. The study also estimates that the Plaintiffs' alternate proposal will result in the loss of 32,100 new jobs -- 76,300 fewer than would be lost if the NO_X Rules are enforced as adopted. The study also estimates that the NOx Rules will cause a precipitous $12.9 billion drop in regional economic output. Under the alternate proposal, the estimated decline is $3 billion. The Defendants wholly failed to consider these economic impacts of the NO_X Rules and the merits of the alternate proposal.

39. Defendants presented dramatically low, fragmentary and misleading cost estimates to the public in proposing the NO_X Rules. Defendants only partly analyzed the direct capital cost, and presented incomplete estimates in the NO_X Rules' preambles. But capital cost is only one component of the overall regional economic impact analysis needed for informed public comments on a rule of this unprecedented magnitude. Defendants never performed such an analysis. Instead, Defendants presented their inaccurate and incomplete cost figures as if they represented the true economic impact of the NO_X Rules.

GROUND I – FAILURE TO PROVIDE A REASONED JUSTIFICATION

40. Plaintiffs incorporate by reference paragraphs 1 to 39.

41. Section 2001.033 of the Texas Government Code requires a state agency adopting a rule to provide a "reasoned justification" for the rule as adopted. The reasoned justification must include a summary of comments received from interested parties, a summary of the factual basis for the rule that demonstrates a rational connection between the factual basis for the rule and the rule as adopted, and the reasons why the agency disagrees with party submissions and proposals. Section 2001.035(c) additionally requires an agency's reasoned justification to

demonstrate in a relatively clear and logical fashion that the rule is a reasonable means to a legitimate objective.

42. The Defendants failed to provide a reasoned justification for their rules because they relied upon a scientifically flawed modeling analysis. Numerous parties repeatedly warned Defendants about using the model because of its tendency to over-predict ozone concentrations. At a time when Defendants were establishing emission limits that many sources will not be able to meet, Defendants elected not to account for the model's aberrant over-prediction of ozone concentrations. Defendants' decision to proceed with its unreliable modeling analysis, despite comments that the model did not accurately predict ozone peaks and without any attempt to correct the model, lacked a reasoned justification. As a result of the modeling day issue and other technical flaws in the underlying factual and scientific bases for the rules, the NO_X Rules are more stringent than necessary to achieve their stated goals.

43. The Defendants failed to provide a reasoned justification for the NOx Rules by failing to summarize all comments received on the rules and explain why the TNRCC disagrees with those submissions and proposals. An examination of the rules published in the *Texas Register* on January 12, 2001, reveals that numerous comments filed by one or more of the Plaintiffs were neither summarized nor rebutted by the Defendants. 26 Tex. Reg. 283, *et seq.* (2001). In addition, the Orders adopted by the Defendant are phrased in wholly conclusory terms on material factual and legal issues. Such conclusory statements provide no justification, much less a reasoned one.

44. With regard to the Point Source Rule, Defendants did not provide a reasoned justification for many of the control strategies adopted. Both combustion control improvements and post-combustion retrofit controls have technological limitations that reduce their potential

effectiveness in achieving the desired emission reduction targets. The reduction target for point sources of NO_X fails to consider these technological limitations, especially with regard to existing sources.

45. Defendants failed to offer a reasoned justification for mandating the widespread use of SCR, with its attendant environmental and public health impacts.

46. Defendants have not provided a reasoned justification for the aggressive implementation deadlines for many of the controls on point sources. Because of anticipated shortages of engineering and construction labor, equipment, and material, it will not be feasible for many sources to meet these deadlines. The implementation deadlines do not allow for the practical implementation of the control strategies mandated by the NO_X Rules.

47. Industrial process disruptions will also occur as the NO_X Rules force sources into unscheduled shutdowns to install point source controls. Defendants failed to consider the economic costs associated with these disruptions. For example, the rules' implementation deadlines will effectively decrease the ethylene industry's production capacity. This reduction will cost HGA ethylene plant operators $330 million in lost sales during the implementation period, when construction would take place. The rules' implementation deadlines may prevent HGA refineries from meeting regional and national fuel products demand during the implementation period.

48. Defendants also failed to provide a reasoned justification for the Construction Shift Rule. Defendant's decision to push construction work into the evening and night will disrupt the lives of countless families as large numbers of people must work later. The efficiency of construction work will diminish during nighttime construction, significantly increasing the costs and duration of projects.

49. In adopting the Construction Shift Rule, Defendants also assumed that the work can be "shifted." Nowhere in the adoption preamble do Defendants address the impact of the operating restriction on businesses that operate their equipment twenty-four hours a day, seven days a week.

50. Defendants did not consider that emissions associated with construction will actually increase as a result of the Construction Shift Rule because more equipment will have to operate to compensate for the inefficiencies of nighttime construction and compressed schedules. The expanded use of gasoline and diesel generators to provide lighting will also increase the amount of NO_X emissions associated with construction projects.

51. The Diesel Fuel Rule and the Accelerated Purchase Rule also lack a reasoned justification. Defendants have wholly failed to show that the minimal NO_X reduction benefits gained by exceeding the established federal rules on these sources justify the social, economic and practical burdens that the Defendants' rules create.

52. There is no rational connection between the factual bases for the NO_X Rules and the rules as adopted. The underlying photochemical modeling that purportedly justifies the rules is fatally flawed. Because the rules lack a reasoned justification, the rules are invalid and void under Section 2001.035(a) of the Texas Government Code.

GROUND II – LACK OF STATUTORY AUTHORITY

53. Plaintiffs incorporate by reference paragraphs 1 to 52.

54. An administrative agency can only adopt rules authorized by and consistent with its statutory authority. It may not impose additional burdens, conditions, or restrictions in excess of, or inconsistent with, its statutory authority.

55. Defendants exceeded their statutory authority in adopting the NO_X Rules.

56. The Texas Clean Air Act ("TCAA") authorizes the Defendants to achieve the statute's goal of controlling "air contaminants by all *practical* and *economically feasible methods*." Tex. Health & Safety Code § 382.011 (emphasis added). Defendants ignored this requirement.

57.The TCAA requires the Defendants to consider, in issuing an order, "the source's social and economic value." Tex. Health & Safety Code § 382.024(2). Each of the NO_X Rules was adopted by an "order" subject to this requirement. Defendants ignored this requirement.

58. The TCAA requires the Defendants to consider, in issuing an order, "the *technical practicability and economic reasonableness* of reducing or eliminating the emissions resulting from the source." Tex. Health & Safety Code § 382.024(4). Each of the NO_X Rules was adopted by an "order" subject to this requirement. Defendants ignored this requirement.

59. The TCAA requires the Defendants to grant the owner or operator of a source sufficient time to comply with their orders gauged on the general situations that the hearings on the rules indicate are necessary. Tex. Health & Safety Code § 382.025(b). Defendants ignored this requirement.

60. In establishing the emission limits in the Point Source Rule, Defendants first established an arbitrary NO_X reduction target for point sources (*i.e.*, 90 percent). Defendants then back-calculated emission limits to achieve this target. In an effort to meet this arbitrary limit, many sources will have to install control technologies that have never been tested, and are neither *practical, economically feasible,* nor *economically reasonable,* as required by the TCAA.

61. Defendants' skewed interpretation of their obligations under the TCAA requirement of practical and economic feasibility is unlawful. In Defendants' opinion, stated clearly in the rule adoption preamble for the Point Source Rule, "the first successful SCR project

was sufficient to demonstrate its technical feasibility." 26 Tex. Reg. 283, 555 (Jan. 12, 2001). "The history of economics shows that the market adjusts to changing market conditions by developing additional supply when there is an increased demand for a product or service." *Id.* at 589. "By identifying existing examples of most, if not all, of the equipment that meets the proposed emission standards, the commission has satisfied the statutory requirement to consider the economic feasibility of the controls. In addition, *the commission is not prohibited from requiring the use of economically infeasible methods to achieve the required standard of air quality*." *Id.* at 591 (emphasis added). Defendants' legal opinion of the standard of practical feasibility seems to be that the agency need only identify one installation of a technology, in one source category, somewhere in the world. Then, by operation of market pressures created by the agency's own mandate, the technology will eventually become "practically feasible" for all source categories subject to the mandate. Defendants' interpretation would nullify the "economic feasibility" and "economic reasonableness" aspects of the statute altogether. This approach flies in the face of the clear language of the TCAA.

62. The Construction Shift Rule also does not meet the practical and economic feasibility test required under the TCAA. Defendants estimated that the Construction Shift Rule will shift approximately eight tons per day of NO_X to a later time of day. Without adequate scientific support, Defendants asserted that this shift will generate an "equivalent" reduction of NO_X. Defendants failed to balance this purported benefit against the widespread economic and social burdens of the mandate.

63. Defendants exceeded their statutory authority by ignoring the TCAA's statutory goal of protecting air resources, *consistent with the protection of public health, general welfare, and physical property*. Texas Health & Safety Code § 382.002 (emphasis added).

64. For many point source categories, the only control options that Defendants have identified for compliance with the emission limits are ammonia-based control technologies, such as SCR. Forcing the use of this technology, however, is inconsistent with protecting public health and welfare. The widespread use of SCR will increase ammonia emissions in HGA by up to 23 million pounds per year. Because of ammonia's role in the formation of fine particulate matter, these new emissions will increase the ambient concentration of particulate matter in HGA by 0.2 to 0.5 micrograms per cubic meter. Defendants ignored the health and welfare impacts of these new ammonia and particulate loadings to the HGA airshed. These impacts are inconsistent with the protection of public health, general welfare, and physical property.

65. The Construction Shift Rule also is inconsistent with the protection of public health and welfare. By pushing construction start times to noon, Defendants are exposing the construction workforce to a greater risk of heat-related injury. Nighttime work will also lead to an increase in NO_X emissions as operators run more equipment to (i) light nighttime projects, and (ii) compensate for the inefficiencies of nighttime construction. Defendants ignored these health and welfare impacts. These impacts are inconsistent with the protection of public health, general welfare, and physical property.

66. The NO_X Rules do not control air contaminants by *practical* and *economically feasible* methods. Nor did Defendants adequately consider the rules' *technical practicability and economic reasonableness.* Nor are they consistent with the protection of the *public health, general welfare*, and the *physical property.* As such, the rules exceed the statutory authority of the TNRCC, and are invalid.

67. The Diesel Fuel Rule and the Accelerated Purchase Rule not only exceed the Defendants' statutory authority for all the reasons identified in this First Amended Petition, but

also violate the doctrine of federal preemption. The federal Clean Air Act preempts the states from establishing or enforcing rules relating to motor fuels and nonroad engines, subject to certain exceptions that Defendants have not satisfied. 42 U.S.C. §§ 7543(a), 7543(e), 7545(c)(4). As these areas are preempted by federal law, the Diesel Fuel Rule and the Accelerated Purchase Rule are outside the Defendants' statutory power.

GROUND III – FAILURE TO PERFORM A REGULATORY IMPACT ANALYSIS

68. Plaintiffs incorporate by reference paragraphs 1 to 66.

69. Section 2001.0225 of the Texas Government Code requires a state agency to perform a Regulatory Impact Analysis ("RIA") when adopting a "major environmental rule" in any one of the following four situations: (1) the rule exceeds a standard set by federal law, but is not specifically required by state law; (2) the rule exceeds an express requirement of state law, but is not specifically required by federal law; (3) the rule exceeds a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or (4) the rule is adopted solely under the general powers of the agency instead of under a specific state law. Texas Gov't Code § 2001.0225(a).

70. In performing a RIA, the agency must identify the benefits and costs of the proposed rules in relationship to state agencies, local governments, the public, the regulated community, and the environment, describe reasonable alternative methods for achieving the purpose of the rule considered by the agency, provide the reasons for rejecting those alternatives, and identify the data and methodology used in performing the analysis. The agency must then find that, "compared to the alternative proposals considered and rejected, the rule will result in the best combination of effectiveness in obtaining the desired results and of economic costs not

materially greater than the costs of any alternative regulatory method considered." Texas Gov't Code § 2001.0225(c).

71. A person who submitted public comments in accordance with the APA may challenge the validity of a major environmental rule by an action for a declaratory judgment under Section 2001.038 of the Texas Government Code based on an agency's failure to propose and adopt the rule in accordance with the procedures of Section 2001.0225. Any such challenge must be filed no later than the 30th day after the effective date of the rule. Plaintiffs submitted public comments on the NOx Rules in accordance with the APA and commenced their challenge no later than the 30th day after the effective date of the NOx Rules, and, therefore, have fulfilled all conditions precedent to bringing this challenge.

72. Defendants have admitted that the NO_X Rules meet the definition of a "major environmental rule." However, Defendants performed no RIA. Instead, Defendants asserted that the NO_X Rules are exempt from the RIA requirement. Defendants' assertion is incorrect. The NO_X Rules meet three of the four situations enumerated in Section 2001.0225, any one of which required Defendants to perform a RIA.

73. Section 2001.0225(a)(1) of the Texas Government Code required Defendants to perform a RIA because the NO_X Rules exceed a standard set by federal law, and the rules are not specifically required by state law.

(A) The NO_X Rules clearly exceed the standards set by federal law. EPA has never mandated emission limits even approaching the level of stringency contained in the Point Source Rule. The reduction levels and aggressive timeframe are mandated nowhere in the CAA. The Diesel Fuel Rule and the Accelerated Purchase Rule exceed specific federal standards for the same sources recently set by EPA. Moreover, each of the NOx Rules is based on the flawed

modeling significantly overpredicting the NOx reductions necessary for attainment of the ozone NAAQS, and, as a result, the NOx Rules are more stringent than necessary and, thereby, exceed a federal standard.

(B) There is no Texas statute that specifically requires Defendants to establish the emission limits, operational restrictions and timetables set forth in the NO_x Rules.

(C) For these reasons, Section 2001.0225(a)(1) required Defendants to perform a RIA.

74. The adoption of the rules also triggered the RIA requirement in Section 2001.0225(a)(2). This section required Defendants to perform a RIA because the NO_X Rules exceed an express requirement of state law, and are not specifically required by federal law.

(A) As previously discussed, the rules do not just "exceed" an express requirement of state law, they go beyond Defendants' authority under the TCAA to control air contaminants by *practical, economically feasible* and *economically reasonable* methods.

(B) Federal law does not require the rules, notwithstanding Defendants' assertion to the contrary. In the adoption preamble, Defendants asserted that the rules are federally mandated because they adopted the rules pursuant to 42 U.S.C. § 7410. This section of the CAA requires states to adopt a SIP to provide for implementation of the National Ambient Air Quality Standards ("NAAQS") for criteria pollutants, including ozone. However, this general requirement that states adopt a SIP does not transform particular control strategies into federal mandates. Nothing in the CAA requires the unprecedented control requirements, emission rates, use restrictions and compliance timetables contained in the NO_X Rules. Defendants admitted as much in the adoption preamble when they acknowledged that "42 U.S.C.

§ 7410 does not require specific programs, methods or reductions in order to meet the standard...." 26 Tex. Reg. 283, 538.

(C) For these reasons, Section 2001.0225(a)(2) required Defendants to perform a RIA.

75. The adoption of the rules also triggered the RIA requirement in Section 2001.0225(a)(4), which applies when an agency adopts a rule solely under its general powers. As previously discussed, neither federal law nor a specific state law specifically requires the emission limits, operational restrictions and timetables contained in the NO_X Rules. Accordingly, the only basis for Defendants adopting these rules would have been under the general powers of the TNRCC.

76. The RIA triggers enumerated in Sections 2001.0225(a)(1), (2), and (4) of the Texas Government Code have been met. Therefore, Defendants purported exemption from performing a RIA does not exist. Because Defendants did not conduct the mandated RIA before adopting the NO_X Rules, the rules are invalid and void under Section 2001.0225(f) of the Texas Government Code.

GROUND IV – FAILURE TO PROVIDE ADEQUATE NOTICE

77. Plaintiffs incorporate by reference paragraphs 1 to 76.

78. Section 2001.024 of the Texas Government Code requires that an agency provide adequate notice of a proposed rule, including information about its public benefits and costs, as well as any other "statement required by law." Adequate notice is essential for fairness as well as a meaningful opportunity to comment on a proposed rule.

79. Defendants' notice of the NO_X Rules was inadequate because Defendants dramatically underestimated the costs they presented to the public. Defendants presented only

incomplete capital costs, not the true economic impact of the rules. Defendants based most of their capital cost estimates on the cost of NO_X emission control equipment for new (as opposed to existing) facilities. However, the incremental cost to use low NO_X technology in a new design is much lower than the cost to use that same technology on an existing unit. By ignoring the unique design and operating conditions found in retrofit applications, Defendants underestimated the capital costs of compliance by a factor of three. By failing to perform an overall regional economic impact analysis, Defendants ignored many types of additional costs. The result was a fiscal note and public benefits and costs note presenting fundamentally misleading information to the public.

80. During the public comment period, Defendants received numerous requests for data supporting the proposed rules, to which they failed adequately to respond. For example, Plaintiffs were not provided reasonable and timely access to information regarding Defendants' modeling analysis and information supporting Defendants' capital cost estimates. Defendants' lack of responsiveness deprived Plaintiffs of a reasonable opportunity to provide timely comment on the NO_X Rules.

81. Defendants also failed to include in their notice other information required by law. Section 2006.002 of the Texas Government Code requires a state agency to prepare a statement analyzing the costs of compliance for small and micro-businesses. This statement must compare the costs of compliance for these businesses with the costs for the largest businesses affected by the rule. The comparison must use at least one of the following standards: cost for each employee, cost for each hour of labor, or cost for each $100 of sales. Section 2006.002 also requires a state agency to reduce any adverse economic effect on small or micro-businesses if doing so is legal and feasible.

82. In adopting the rules, Defendants failed to make such comparisons or reduce such effects. Even in those instances where Defendants acknowledged a "significant" impact on small and micro-businesses, the agency either (i) restated the costs of compliance it identified in the rules' analyses of public benefits and costs, or (ii) concluded that it could not determine the costs to small and micro-businesses.

83. Defendants' assessments are woefully inadequate. It is not sufficient for the agency merely to state that the costs for small and large businesses will be the same. The rationale behind requiring a comparison using an established standard (*e.g.*, cost for each employee, cost for each hour of labor, or cost for each $100 of sales) is to determine whether there is a disparate impact on small businesses. Furthermore, the agency cannot merely conclude that the costs to small businesses "cannot be determined." Defendants are obliged to include in the notice of the rule some basis for its conclusion so that interested parties can confront that basis in a meaningful way in their comments.

84. Accordingly, Defendants did not provide interested parties with sufficient information to allow them to confront the agency's factual suppositions and policy preconceptions. This approach denied interested parties the opportunity to challenge the factual data relied upon by the agency.

85. Because Defendants failed to adopt the NO_X Rules in substantial compliance with Section 2001.024 of the Texas Government Code, the rules are void under Section 2001.035(a) of the Texas Government Code.

GROUND V – THE SIP ORDER IS UNLAWFUL

86. Plaintiffs incorporate by reference paragraphs 1 to 85.

87. Section 382.032 of the Texas Health & Safety Code provides that a person affected by an order of the TNRCC may appeal the action. Section 5.351 of the Texas Water Code provides that a person affected by an order of the TNRCC has the right to file a petition to set aside the order.

88. Plaintiffs have been adversely affected by the "Order Adopting Revisions to the State Implementation Plan," approved by the Defendants on December 20, 2000. That Order approved and incorporated the erroneous modeling analysis and the defective NOx Rules as revisions to the SIP. The SIP revisions approved by the Order also included commitments on behalf of the TNRCC to adopt future rules and implement additional control strategies. Once approved by EPA, the SIP revisions will become federal law.

89. The SIP revisions approved by the Order establish commitments that are binding on the Defendants and establish policy of the TNRCC and specific plans as to how to attain the ozone NAAQS for the HGA. Being inconsistent with the statutory provisions of the TCAA and founded on flawed science, mistaken technical assumptions and improper procedure, the Order is invalid, arbitrary and unreasonable as provided by Section 382.032(e) of the Texas Health & Safety Code.

90. The Order is also unlawful because despite the fact that the revisions to the SIP approved by the Order constitute "rules" of the TNRCC under section 2001.003(6) of the Texas Government Code, the Defendants did not approve the Order after using proper rulemaking procedure. The SIP is a statement of general applicability that implements, interprets and prescribes law and policy. It constitutes the TNRCC's chief policy tool regarding the modeling of emission reduction strategies in the HGA and includes binding commitments on Defendants and Plaintiffs that are enforceable as a matter of federal law under the CAA. By failing to adopt

the SIP revisions using proper rulemaking procedure, the Defendants violated section 5.103 of the Texas Water Code and failed to substantially comply with the applicable procedural requirements of the Texas Government Code.

91. The Order is also unlawful under federal law. Section 110(a) of the federal Clean Air Act, 42 U.S.C. §7410(a), requires each State to provide "reasonable notice" of its proposed adoption of a SIP, including revisions to a SIP. Such notice is also required by 40 C.F.R. §51.102. The Defendants failed to give reasonable notice of the revisions to the Texas SIP approved by the Order.

GROUND VI– THE RULES ARE UNCONSTITUTIONAL

92. Plaintiffs incorporate by reference paragraphs 1 to 91.

93. An administrative rule violates due process when it is arbitrary and capricious. A rule is arbitrary and capricious when it lacks a legitimate reason to support it. An agency also acts arbitrarily if, in making a decision, it omits from its consideration a factor that the Legislature intended the agency to consider, includes in its consideration an irrelevant factor, or reaches a completely unreasonable result after weighing only relevant factors.

94. In issuing the NO_X Rules, the Defendants acted arbitrarily in violation of Plaintiffs' due process rights. The NO_X Rules lack a legitimate factual basis to support them and there is no rational connection between the facts that were in fact before the agency and the regulatory choices made. The modeling used by the Defendants to develop the NO_X Rules is fatally flawed and does not provide any rational factual justification for the adoption of the rules. Likewise, the bases for the control strategies mandated by the NO_X Rules, the rules' unreasonably aggressive implementation deadlines, and the costs and benefits of the rules all lack justifications in fact and are irrational.

95. Succinctly stated, for all of the reasons set forth in this Petition, Defendants simply failed to engage in a rational decision-making in this rulemaking proceeding. Accordingly, Defendants adopted the NO_X Rules in violation of Plaintiffs' due process rights under Article I, Section 19 of the Texas Constitution and the Fourteenth Amendment to the United States Constitution.

96. Additionally, the Diesel Fuel Rule and the Accelerated Purchase Rule violate the Supremacy Clause of the U.S. Constitution, which provides that the laws of the United States "shall be the supreme Law of the Land," and are therefore unconstitutional. U.S. Const. art. VI, cl. 2. The federal Clean Air Act preempts the states from establishing or enforcing rules like the Diesel Fuel Rule and the Accelerated Purchase Rule relating to motor fuels and nonroad engines, subject to certain exceptions that Defendants have not satisfied. 42 U.S.C. §§7543(a), 7543(e), 7545(c)(4).

REQUEST FOR TEMPORARY INJUNCTION

97. Plaintiffs incorporate by reference paragraphs 1 to 96.

98. Plaintiffs estimate that the capital costs to comply with the NO_X Rules will be in excess of $13 billion. In light of these staggering costs and other economic damages to be sustained and in order to preserve the status quo existing immediately before the Defendants' promulgation of the NO_X Rules, and to preserve Plaintiffs' property rights during the pendency of this suit, Plaintiffs respectfully request that after notice and hearing the Court issue a temporary injunction staying the effectiveness of the NO_X Rules and requiring the Defendants to withdraw the SIP from EPA consideration pending the final judgment in this case.

99. In support of this request, Plaintiffs would show the Court as follows:

(A) Plaintiffs have demonstrated that they are entitled to a declaratory judgment that the NO_X Rules are invalid and void due to procedural and substantive defects.

(B) By promulgating the NO_X Rules, it is clear that Defendants intend to enforce them. By incorporating the NO_X Rules into the SIP, and submitting the SIP for EPA approval, Defendants intend that the NO_X Rules become incorporated into federal law under 42 U.S.C. § 7410.

(C) If the court does not stay the NO_X Rules, they will become a requirement of federal law upon EPA approval, which approval could occur before this Court is afforded the opportunity to fully consider the issues raised by this First Amended Petition.

(D) If the court does not stay the NO_X Rules, Plaintiffs must immediately begin spending the billions of dollars that will be required to design, engineer and construct the massive plant retrofits and reconfigurations of existing facilities in order to attempt to comply with the NOx Rules. Plaintiffs cannot delay their efforts pending final judgment in this case, because the failure to meet the Defendants' aggressive timetable exposes the Plaintiffs to potential civil and criminal penalties under federal and state laws.

(E) If the court does not stay the NO_X Rules, but the rules are ultimately held to be invalid and void, Plaintiffs will be irreparably harmed by having entered into contracts to research, design, purchase, build and install costly emissions control equipment, including SCR units, which will not be required and may not be appropriate to comply with the ultimate rules.

(F) No adequate remedy at law exists for the threatened harm because Plaintiffs, as a matter of law, will be unable to recover damages from Defendants.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request:

100. A declaration that the NO_X Rules are invalid and void due to:

(A) Defendants' failure to provide a "reasoned justification" for the rules as required by Section 2001.033 of the Texas Government Code;

(B) Defendants' failure to perform a Regulatory Impact Analysis for the rules as required by Section 2001.0225 of the Texas Government Code;

(C) Defendants' failure to provide adequate notice of the rules as required by Section 2001.024 of the Texas Government Code;

(D) Defendants' failure to issue the rules consistent with its statutory authority; and

(E) Defendant's failure to adopt the Order approving revisions to the SIP in a lawful manner; and

(F) Defendants' violation of Plaintiffs' right to constitutional due process by adopting the rules, which lack a legitimate factual basis and constitute an irrational exercise of the Defendants' rulemaking authority.

101. Issuance of a temporary injunction, after notice and hearing, staying the effectiveness of the NO_X Rules and ordering Defendants to withdraw the SIP from EPA consideration, pending final judgment in this case.

102. Issuance of a permanent injunction ordering Defendants to withdraw the NO_X Rules from EPA consideration and barring enforcement of the NO_X Rules.

103. That the Court award such other relief as shall be just and proper under the circumstances.

Respectfully submitted,

BAKER BOTTS L.L.P.

BY _____
F. WALTER CONRAD
STATE BAR NO. 04709000
910 LOUISIANA
HOUSTON, TEXAS 77002
(713) 229-1234
(713) 229-1522 (FAX)

BOB E. SHANNON
STATE BAR NO. 18096000
MARK R. ROBECK
STATE BAR NO. 16990040
LARRY F. YORK
STATE BAR NO. 22164000
1600 SAN JACINTO BOULEVARD
AUSTIN, TEXAS 78701-4039

ATTORNEYS FOR PLAINTIFFS

VERIFICATION OF DAVID SIGMAN

STATE OF TEXAS §
§
COUNTY OF HARRIS §

BEFORE ME, the undersigned notary public, on this day personally appeared David Sigman, who being by me duly sworn on oath, deposed and said:

1. My name is David Sigman. I am over the age of 18, of sound mind, and fully competent to make this affidavit. I have never been convicted of a felony.

2. I have served as a member of the Coordinating Committee of the Business Coalition for Clean Air, an industry group engaged in constructive negotiations with the Texas Natural Resource Conservation Commission ("TNRCC") over control measures required to attain compliance with the ozone standard in the Houston-Galveston area of Texas.

3. I have become personally familiar with the environmental regulation of industrial activities in the Houston, Texas area and the recent revisions to the Houston/Galveston State Implementation Plan approved by the TNRCC.

4. I have reviewed Plaintiffs' First Amended Petition for Declaratory Judgment and Injunctive Relief. I have personal knowledge of the factual allegations contained therein and those allegations are true and correct.

David Sigman

SUBSCRIBED AND SWORN TO ME on this 2nd day of May, 2001, to certify which witness my hand and official seal.

Janelle Eason
Notary Public, State of Texas

JANELLE EASON
NOTARY PUBLIC, STATE OF TEXAS
MY COMMISSION EXPIRES
OCT. 22, 2001

JANELLE EASON
Printed Name of Notary

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of *Plaintiffs' First Amended Petition for Declaratory Judgment and Injunctive Relief* was sent by the delivery method indicated on this 4th day of May, 2001 to:

Brian E. Berwick
Cynthia Woelk
Nancy Olinger
Assistant Attorneys General
P.O. Box 12548
Austin, Texas 78711-2548
Telephone: 512.463.2012
Facsimile: 512.320.0052
(By Hand Delivery)

Harless Benthul
Benthul & Kean, LLP
Bank of America Center
700 Louisiana, Suite 2447
Houston, Texas 77002
Telephone: 713.223.0030
Facsimile: 713.223.0026
(By Certified Mail/Return Receipt Requested)

David A. Brakebill
Graham Kerin Blair
Baker & McKenzie
1301 McKinney Street, Suite 3300
Houston, Texas 77010-3300
Telephone: 713.427.5000
Facsimile: 713.427.5099
(By Certified Mail/Return Receipt Requested)

Mark R. Robeck
MARK R. ROBECK

CAUSE NO. GN1-00210

BCCA APPEAL GROUP, ENTERPRISE PRODUCTS OPERATING L.P., EQUISTAR CHEMICALS, LP, LYONDELL CHEMICAL COMPANY, LYONDELL-CITGO REFINING L.P., RELIANT ENERGY, INCORPORATED	§	IN THE DISTRICT COURT
vs.	§	OF TRAVIS COUNTY, TEXAS
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, ROBERT HUSTON, CHAIRMAN, JOHN BAKER AND RALPH MARQUEZ, COMMISSIONERS, AND JEFFREY SAITAS, EXECUTIVE DIRECTOR	§	250th JUDICIAL DISTRICT

CONSENT ORDER

WHEREAS, BCCA Appeal Group, Enterprise Products Operating L.P., Equistar Chemicals, LP, Lyondell Chemical Company, Lyondell-CITGO Refining L.P., and Reliant Energy, Incorporated (collectively, "Plaintiffs," which term for purposes of this Consent Order includes all members of BCCA Appeal Group), filed a petition in this cause against the Texas Natural Resource Conservation Commission ("TNRCC"), TNRCC Executive Director Jeffrey Saitas (the "Executive Director") and the individual Commissioners named herein (collectively, "Defendants") on January 19, 2001;

WHEREAS, Plaintiffs by their suit sought the Court's review of revisions to the State Implementation Plan ("SIP") for the region of Texas known as the Houston/Galveston ozone nonattainment area ("HGA") and the adoption of new and amended rules in Chapters 101,

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TRAVIS COUNTY, TEXAS

114 and 117 of Title 30 of the Texas Administrative Code controlling emissions of nitrogen oxides ("NO_X");

WHEREAS, the rules and actions challenged by the Plaintiffs are more commonly referenced as the point source rule, adopting revisions to 30 Tex. Admin. Code Chapter 117 at 26 Tex. Reg. 524, et seq. (the "Point Source Rule"), the emissions banking and trading rule, adopting revisions to 30 Tex. Admin. Code Chapter 101 at 26 Tex. Reg. 283, et seq. (the "Trading Rule"), the construction shift rule, adopting revisions to 30 Tex. Admin. Code Chapter 114 at 26 Tex. Reg. 452, et seq., the diesel fuel rule, adopting revisions to 30 Tex. Admin. Code Chapter 114 at 26 Tex. Reg. 328, et seq., the accelerated purchase rule, adopting revisions to 30 Tex. Admin. Code Chapter 114 at 26 Tex. Reg. 432, et seq., and the revisions to the State Implementation Plan for the Control of Ozone Air Pollution and Post-1999 Rate-Of-Progress and Attainment Demonstration SIP for the Houston/Galveston Ozone Nonattainment Area adopted by an Order issued in Docket No. 2000-0773-SIP (December 20, 2000) (the "HGA Attainment Demonstration");

WHEREAS, based on additional scientific analysis of the causes of the ozone levels identified for control by the HGA SIP and the HGA Attainment Demonstration, the amount of areawide point source NO_X emissions reductions necessary to demonstrate attainment of the National Ambient Air Quality Standard ("NAAQS") for ozone may turn out to be capable of being reduced from 90 percent to 80 percent by the identification and adoption of potential measures not yet identified in the HGA Attainment Demonstration;

WHEREAS, the parties contemplate that the possible promulgation of additional measures to control episodic releases ("Additional Measures"), if and to the extent such Additional Measures are determined by the TNRCC to support attainment using the Science

Evaluation contemplated by Paragraph 4.4(B) below, may justify an alternate set of Emission Specifications for Attainment Demonstration ("ESADs") for covered point sources that establish an approximate area-wide blended 80% point source NO_X reduction, which would result in a total reduction of not less than 535 tons per day NOx emissions from utility and non-utility point sources in the HGA area (the "80% ESAD Option");

WHEREAS, the parties understand that the Executive Director intends that the 80% ESAD Option and certain revisions to the existing ESADs, which establish an approximate areawide blended 90% point source NO_X reduction (the "90% ESAD Option"), are to be proposed and, subject to due consideration of public comment, may be adopted as rules of the TNRCC and may be approved by the State of Texas and the U.S. Environmental Protection Agency ("EPA") as part of the pending 2001 revisions to the HGA SIP and the HGA Attainment Demonstration;

WHEREAS, the availability of the 80% ESAD Option in lieu of the 90% ESAD Option as contemplated herein is also subject to the Defendants' affirmative possible future determination concerning the scientific analysis of the effect of Additional Measures, which determination will be made pursuant to the process set forth in Paragraph 4.4(B);

WHEREAS, the parties contemplate Executive Director proposal by not later than June 2002 of best management practices to control episodic releases; development of additional reporting, record keeping, and monitoring requirements; by not later than June 2003, scientific assessment of key chemical compounds or other causative factors that may create spike ozone phenomena; and by not later than June 2004, adoption of rules controlling episodic releases and requiring best management practices; and

WHEREAS, the parties agree that the Court has jurisdiction to approve this Consent Order, and have agreed to enter into this Consent Order without any admission or adjudication of any issue of fact, law, liability, or remedy.

NOW, THEREFORE, it is agreed that:

1. DEFINITIONS

As used in this Consent Order the words and terms set forth below shall have the following meanings:

A. "State" shall mean the State of Texas.

B. "TNRCC" shall mean the Texas Natural Resource Conservation Commission and its predecessor and successor agencies.

C. "Defendants" shall mean collectively, the TNRCC; Robert Huston, Chairman; John Baker, Commissioner; Ralph Marquez, Commissioner; Jeffrey Saitas, Executive Director.

D. "Parties" shall mean the Plaintiffs and Defendants, collectively.

E. "EPA" shall mean the U.S. Environmental Protection Agency.

F. "EPA Approval" means a full approval of a submission under FCAA § 110(k)(3) and 182, 42 U.S.C. § 7410(k)(3) and 7511a, and shall not include a partial or conditional approval under FCAA § 110(k)(3) or (4), 42 U.S.C. § 7410(k)(3) or (4).

G. "ESAD" shall mean the emission specifications for attainment demonstration set forth in 30 Tex. Admin. Code §§ 117.106 and 117.206, as amended from time to time.

H. "FCAA" shall mean the federal Clean Air Act, 42 U.S.C. § 7401, et seq.

I. "Full Attainment Demonstration" means a demonstration in accordance with FCAA §§ 182(c)(2), 182(d), 42 U.S.C. §§ 7511a(c)(2), 7511(d), showing that the HGA will attain the 1-hour ozone national ambient air quality standard by the applicable attainment date.

J. "HGA" means the Houston/Galveston area designated as a severe-17 ozone nonattainment area under the FCAA.

K. "HGA Attainment Demonstration" means the State Implementation Plan for the Control of Ozone Air Pollution and Post-1999 Rate-of-Progress and Attainment Demonstration SIP for the Houston/Galveston Ozone Nonattainment Area, as revised by the TNRCC by Order Adopting Revisions to the State Implementation Plan (December 20, 2000), as amended from time to time.

L. "Plaintiffs" refers to the BCCA Appeal Group, Enterprise Products Operating L.P., Equistar Chemicals, LP, Lyondell Chemical Company, Lyondell-CITGO Refining L.P., Reliant Energy, Incorporated, and, for purposes of Sections 4, 5, and 7 of this Consent Order, all members of BCCA Appeal Group.

2. NO ADMISSION

2.1. The Defendants do not admit any of the allegations made by the Plaintiffs in this cause, but enter into this Consent Order because of the uncertainty and costs of litigation.

3. PARTIES BOUND

3.1. This Consent Order applies to and is binding upon the Parties and their successors and assigns, including any successor to the Executive Director or any Commissioner.

3.2. Nothing in this Consent Order shall be construed to create any rights in, or grant any cause of action to, any person not a party to this Consent Order.

4. ACTIONS BY DEFENDANTS

4.1. Proposal of Stage 1 Rule Package

On or before June 15, 2001, Defendants agree to take all of the following actions:

A. Amended Point Source Rule

The Executive Director shall propose to the Commissioners as a rule of the TNRCC an amendment to the Point Source Rule (the "Amended Point Source Rule"). The form and substance of the Amended Point Source Rule are set forth in Exhibit "A" attached hereto and incorporated herein. The Executive Director's proposed rule will amend certain requirements of the 90% ESAD Option for utility point sources and establish the 80% ESAD Option as an alternate standard for all covered point sources (as set forth in Exhibit "A"). The 90% ESAD Option, as amended by the Amended Point Source Rule, will be the applicable point source standard unless the availability of the 80% ESAD Option or a third alternate option is supported by the TNRCC's Science Evaluation and continuing scientific assessment of the causes of and possible solutions to the HGA ozone non-attainment status, and is confirmed by Commission rule.

B. Amended Milestones Rule

The Executive Director shall propose to the Commissioners an amendment to the Trading Rule to adjust the interim reduction milestones set forth in the step-down provisions of the Trading Rule (the "Amended Milestones Rule"). The form and substance of the Amended Milestones Rule are set forth in Exhibit "B" attached hereto and incorporated herein.

C. Stage 1 SIP Revision

The Executive Director shall propose revisions to the HGA SIP and the HGA Attainment Demonstration that incorporate the proposed Amended Point Source Rule, the

Amended Milestones Rule, and associated changes to the SIP narrative to effect the intent of this Consent Order (the "Stage 1 SIP Revision").

4.2. Adoption of Stage 1 Rule Package

On or before October 15, 2001, Defendants may take the following actions:

A. Adoption of Amended Point Source Rule and Milestones Rule

Subject to Section 9 below (which provides that nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants) and after due consideration of public comment submitted by interested persons, the TNRCC may adopt as a final rule the Amended Point Source Rule with ESADs and milestones not materially different from the ones proposed, and the Amended Milestones Rule.

B. Adoption of Stage 1 SIP Revision

Subject to Section 9 below (which provides that nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants) and after due consideration of public comment submitted by interested persons, Defendants may adopt the Stage 1 SIP Revision. Upon adopting the SIP Revision, the TNRCC shall promptly forward such revision to the Governor of the State of Texas to be submitted to EPA on behalf of the State for EPA Approval.

4.3. EPA Approval of Stage 1 SIP Revision

The Defendants agree to use their best efforts to secure EPA Approval of any adopted Stage 1 SIP Revision on or before October 15, 2001.

4.4. Proposal of Stage 2 Rule Package

On or before June 1, 2002, the Executive Director may take the following actions:

A. Alternate ESAD Selection Rule

The Executive Director may propose to the Commissioners, and, subject to Section 9 below (which provides that nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants), the TNRCC may propose as a rule of the TNRCC, the Alternate ESAD Selection Rule, which shall consist of either (1) a rule confirming the determination of the Commissioners contemplated in the Amended Point Source Rule concerning the availability and effect of the 80% Option, or (2) a rule establishing revised ESAD requirements for covered point sources that are different than either the 80% Option or the 90% Option. The Alternate ESAD Selection Rule shall be based on the TNRCC's Science Evaluation and continuing scientific assessment of the causes of and possible solutions to the HGA ozone non-attainment status.

B. Science Evaluation

Subject to Section 9 below (which provides that nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants), the scientific basis for any Alternate ESAD Selection Rule will include, among other relevant considerations, an objective evaluation of the causes of rapid ozone formation events and the identification of potential measures not yet identified in the HGA Attainment Demonstration ("Science Evaluation"). The Science Evaluation will include the milestones and procedures reflected in Exhibit "C." To the extent supported by the TNRCC's Science Evaluation and continuing scientific assessment, the beneficiaries of episodic release evaluation and any attainment credit will be first HGA point source owners (down to the 535 tons per day level). The TNRCC, in its discretion, may allocate any additional benefit to other SIP strategies and/or to the point source

NOx control strategy. The parties contemplate Plaintiffs' full cooperation in the Science Evaluation.

C. Stage 2 SIP Revision

The Executive Director may propose revisions to the HGA SIP and the HGA Attainment Demonstration that incorporate any proposed Alternate ESAD Selection Rule (the "Stage 2 SIP Revision").

4.5. Adoption of Stage 2 Rule Package

On or before December 1, 2002, Defendants may take the following actions:

A. Adoption of Alternate ESAD Selection Rule

Subject to Section 9 below (which provides that nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants) and after due consideration of public comment submitted by interested persons, Defendants may adopt as a final rule of the TNRCC the Alternate ESAD Selection Rule.

B. Adoption of Stage 2 SIP Revision

Subject to Section 9 below (which provides that nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants) and after due consideration of public comment submitted by interested persons, Defendants may adopt the Stage 2 SIP Revision. Upon adopting the Stage 2 SIP Revision, the TNRCC shall promptly forward such revision to the Governor of the State to Texas to be submitted to EPA on behalf of the State for EPA Approval.

4.6. EPA Approval of Alternate ESAD SIP Revision

The Defendants agree to use their best efforts to secure EPA Approval of the Stage 2 SIP Revision on or before June 1, 2003.

5. STAY

5.1. The Parties agree to stay this case. The stay shall be deemed lifted thirty days after the earliest to occur of any of the following events:

A. Defendants do not complete the actions discussed in Paragraph 4.2 by the date set forth in that paragraph.

B. EPA does not issue EPA Approval of the Stage 1 SIP Revision by October 15, 2001, or the Stage 2 SIP Revision by June 1, 2003.

C. Defendants do not complete any action discussed in Paragraphs 4.4(A) or 4.5 by the dates set forth in those respective paragraphs.

D. Defendants do not by October 15, 2001, make satisfactory progress in the Science Evaluation described in Section 4.4(B). For this occurrence to cause the stay to be lifted, Plaintiffs must apply to the Court for lifting of the stay between October 16, 2001, and October 30, 2001.

E. By February 28, 2002, the Plaintiffs materially disagree with the written findings to be provided on that date to TNRCC Management concerning the Science Evaluation described in Section 4.4(B). For this occurrence to cause the stay to be lifted, Plaintiffs must apply to the Court for lifting of the stay between March 1, 2002, and March 15, 2002.

5.2. In the event the stay of this cause is lifted, the Parties shall proceed with the trial of this cause as if no stay had been entered.

5.3. Occurrence of any of the events listed in 5.1 will be cause exclusively for lifting the stay and will not be deemed rulemaking, other judicially reviewable final agency action, or cause for any order of "specific performance" or other similar order.

6. RETENTION OF JURISDICTION

This Court retains jurisdiction over both the subject matter of this Consent Order and the Parties to lift the stay or to dismiss the case in accordance with this Consent Order.

7. DISMISSAL BY PLAINTIFFS

If the TNRCC issues a final rule approving revised ESAD requirements consistent in all respects with Paragraphs 4.4 and 4.5, Plaintiffs agree to the dismissal of this cause with prejudice.

8. MODIFICATIONS

Any provision of this Consent Order may be modified by agreement of the parties.

9. DEFENDANTS' RESERVATION OF RIGHTS

9.1. Except as expressly provided herein, nothing in this Consent Order shall be construed to limit or modify the discretion accorded the Defendants by the Texas Clean Air Act, Texas Water Code, Administrative Procedure Act, federal Clean Air Act, or by other applicable law in regard to the actions which are the subject of this Consent Order.

9.2. Nothing in this Consent Order shall be construed to limit or modify any discretion TNRCC may have to alter, amend or revise the actions taken pursuant to this Consent Order, from time to time, or to promulgate superseding regulations.

9.3. The occurrence of an event described in Section 5, even though such occurrence may be a result of the exercise of the agency's discretion as provided by Paragraphs 9.1 or 9.2, shall not be any the less a cause for lifting of the stay.

9.4. The non-proposal or non-adoption of the Stage 2 Rule Package pursuant to Paragraphs 4.4 and 4.5 shall not be deemed to be final agency action; provided, however, that such non-proposal or non-adoption will be a basis for lifting the stay pursuant to Paragraph 9.3.

9.5. Each action of any Defendant contemplated herein will be undertaken in compliance with Open Meetings Act, Administrative Procedure Act, and other applicable law.

10. PLAINTIFFS' RESERVATION OF RIGHTS

10.1. Nothing in this Consent Order shall prohibit the Plaintiffs from filing written comments on subsequent agency actions relating to the HGA SIP. Where necessary to preserve their legal rights, nothing in this Consent Order shall prohibit the Plaintiffs from filing suit in state or federal court for review of subsequent agency actions relating to the HGA SIP. However, the Plaintiffs will not actively prosecute any such subsequent suits prior to the lifting of the stay in this cause, except as necessary to preserve their legal rights in such suits.

10.2. Plaintiffs reserve any legal rights they would otherwise have absent this Consent Order under the Administrative Procedure Act, the Texas Clean Air Act, the Texas Water Code, the federal Clean Air Act or other applicable law.

11. GENERAL PROVISIONS

11.1. This Consent Order may be executed in multiple counterparts, which together shall constitute a single original instrument. Any executed signature page to this Consent Order may be transmitted by facsimile transmission to the other parties, which shall constitute an original signature for all purposes.

11.2. Each of the undersigned representatives of a party to this Consent Order certifies that he or she is fully authorized to consent to the terms and conditions of the Consent Order and to legally execute and bind that party to this Consent Order.

Approved and signed this 8 day of June, 2001.

Margaret Cooper
Judge Presiding

AGREED TO AND APPROVED AS TO FORM AND SUBSTANCE:

JOHN CORNYN
Attorney General of Texas

HOWARD G. BALDWIN, JR.
First Assistant Attorney General

JEFFREY S. BOYD
Deputy Attorney General for Litigation

KAREN W. KORNELL
Assistant Attorney General
Chief, Natural Resource Division

Nancy Elizabeth Olinger Date: 6/7/01

~~BRIAN E. BERWICK~~ Nancy Elizabeth Olinger
Assistant Attorney General
State Bar No. ~~02258500~~ 15525 4230

Natural Resources Division
P.O. Box 12548, Capitol Station
Austin, Texas 78711-2548
Tel: (512) 463-2012
Fax: (512) 320-0052

ATTORNEYS FOR DEFENDANTS

Date: 6/04/2001

F. WALTER CONRAD
BAKER BOTTS L.L.P.
State Bar No. 04709000
910 Louisiana
Houston, Texas 77002
(713) 229-1234
(713) 229-1522 (Fax)

ATTORNEYS FOR PLAINTIFFS

Exhibits A & B are not reproduced here. Those contain excerpts from the Commission's proposed changes to certain rules in 30 Tex. Admin. Code Chapters 101 and 117, proposed for comment in the June 15, 2001 issue of the *Texas Register* (26 TexReg 4400).

Exhibit C

SCIENCE EVALUATION

Milestones:

August 1, 2001	Draft plan incorporating working definition of rapid ozone formation events versus "normal" events. Issue request for proposals for peer review of 2000 episode.
February 28, 2002	Written findings provided to TNRCC management and public in a Commission Work Session: 1. Analysis of rapid ozone formation events versus "normal" events; 2. Whether these events can be controlled with different strategies; 3. Any alternative design value based on "normal" ozone; and 4. Any alternate NOx reductions from point sources, concurrent with substituted emission reduction strategies designed to reduce rapid ozone formation.
April 1, 2002	Conduct modeling runs, if appropriate, to support SIP submittal. Identify 2000 episode or September 1993 episode.
May 1, 2002	Document and draft modeling and data analysis portions of SIP.
June 1, 2002	SIP to agenda.

Process:

- TNRCC will conduct an independent, thorough analysis of ozone formation in the Houston area.
- TNRCC management will be briefed monthly on the current status of the project.
- TNRCC will use the existing Houston Photochemical Technical Review Committee monthly meetings to brief the current status of projects.
- TNRCC will work closely with national experts.
- TNRCC will host a meeting in August 2001 for the scientists involved in the summer 2000 field study to discuss the early results of the study.

- By August 1, 2001 TNRCC will prepare and maintain a public web-site and/or FTP site, updated weekly, containing all modeling input and output files and notice of receipt of draft and final contractor reports submitted to the agency.
- TNRCC will work closely with EPA to assure approvability.
- Parties will work together to share data needed for TNRCC and private sector science evaluations.
- TNRCC staff and plaintiffs' experts will hold monthly conference calls to implement data sharing.

Robert J. Huston, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
John M. Baker, *Commissioner*
Jeffrey A. Saitas, *Executive Director*

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

June 28, 2001

Bernie Sandner
East Harris County Manufacturers
Association
Equistar Chemical
P. O. Drawer D
Deer Park, Texas 77536-1900

Dear Mr. Sandner:

As you are no doubt aware, the Texas Natural Resource Conservation Commission (TNRCC) recently reached an agreement with members of the Business Coalition for Clean Air-Appeal Group (BCCA-AG) and other individual companies which stayed their challenge to the HGA SIP point source rules which require a 90 percent reduction in NOx by 2007. These rules, adopted in December 2000, are in addition to other significant, aggressive strategies which target oxides of nitrogen (NOx) reductions from other sources in the area.

A fundamental underpinning of the BCCA-AG consent order is an evaluation of whether or not the extent of point source NOx reductions required by the state implementation plan (SIP) is the best approach to reach attainment of the one-hour ozone standard.

Based on the observations of rapid formation and rather short-lived high ozone concentrations in the Houston-Galveston nonattainment area, the BCCA-AG suggested that further analysis be conducted, with a focus on episodic releases of highly reactive VOCs. The purpose of the analysis is to determine if control measures not currently included in the Houston-Galveston Area (HGA) SIP can be formulated, and if these measures can be shown to be at least as effective in achieving the ozone standard as the current aggressive point source NOx reductions adopted in the SIP.

The TNRCC agreed to undertake an accelerated science evaluation with full cooperation from the industrial parties to the lawsuit. The overall objective is the structuring of a better attainment plan for the Houston-Galveston area. The specific objective is to replace all or part of the last ten percent of the point source NOx reduction requirements with equally effective measures to reduce episodic releases. Any change to the SIP must be fully supported by the science evaluation agreed to in the settlement.

In the short term (June, 2002), in order to propose replacement of the current emission specifications for NOx described in Ch. 117, the TNRCC must reach a sufficient understanding of the cause and effect of rapid ozone formation events and must identify control strategies which are technically sound, sufficiently quantifiable, and readily implementable. Then, and only then, will the current NOx reduction requirements be modified.

The agency has initiated a comprehensive monitoring effort which, coupled with an improved inventory, will enhance the Texas 2000 Study. Therefore, it is essential to this undertaking that the agency incorporate the most accurate, current and complete emissions inventory as well as upset, etc. reporting data. Your members' cooperation, in addition to that of the BCCA-Appeal

Group, will ensure a robust science evaluation and a sound air quality plan for the health and benefit of the citizens of Texas, as well as industry.

The TNRCC is available to visit further regarding the scientific evaluation and the process/schedule for conducting it should you have additional questions. We will continue to request your assistance in this process. As a first step, we ask that you forward this communication to your membership. We look forward to working with you on this important endeavor.

Sincerely,

Robert J. Huston
Chairman

Identical letters to:
Jim Woodrick, Texas Chemical Council
Rob Looney, Texas Oil & Gas Association
George Beatty, Greater Houston Partnership
Mary Miksa, Texas Association of Business & Chamber of Commerce

copy to:
Billy Phenix, Governor's Policy Office
Commissioner Ralph Marquez, TNRCC
Commissioner John Baker, TNRCC

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See Also:

Texas Emissions Reduction Plan (TERP) - Senate Bill 5

State Plan for Designated Facilities and Pollutants (§111(d) State Plan)

Air Quality Modeling and Data Analysis

Monitoring Operations

Point Source Air Emissions Inventory

Sources of Air Pollution

State Implementation Plan (SIP)

Complying with the Clean Air Act in Texas

Texas' plan for complying with the federal Clean Air Act is known as the State Implementation Plan (SIP).

- Hot Topics
- What is a SIP?
- Current SIP Proposals
- Adopted SIP Revisions
- Contact Information

Hot Topics

HOT May 2001 Houston/Galveston SIP Proposal
HOT May 2001 Houston/Galveston SIP - Public Comment and Hearing

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What is a SIP?

The TNRCC is responsible for developing the State Implementation Plan (SIP) which details the efforts and commitments made by a state in fulfilling its Exit Clean Air Act obligations. The official SIP document is housed at the Exit U.S. Environmental Protection Agency (EPA). There is only one SIP; all later submittals to EPA are SIP revisions to that single comprehensive plan. The rules adopted and submitted to EPA to enforce SIP requirements are part of the SIP--just like the narrative portion that describes the state's plan. The two together--rules and narrative--comprise the SIP revision. A SIP revision that has been adopted by the TNRCC becomes state law immediately, but does not become part of the SIP officially until it has been approved by EPA.

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Current SIP Proposals

- May 2001 Houston/Galveston SIP Proposal

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Adopted SIP Revisions

- December 2000 Houston/Galveston Ozone SIP
- Revisions adopted between December 2000 and August 1995
- Revisions adopted before August 1995 are available in hardcopy format only.

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Contact Information

Questions about the State Implementation Plan should be directed to Bill Jordan, wjordan@tnrcc.state.tx.us, Leader of the SIP Development Team, at 512/239-2583.

Copies may be obtained by contacting Heather Evans, hevans@tnrcc.state.tx.us, of the SIP Development Team at 512/239-1970.

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Houston/Galveston Area Proposed SIP

- Proposed Revisions
- Revision Summaries (PDF and WordPerfect Formats)
- Public Hearings - June and July, 2001
- How to Submit Comments

See Also:

State Implementation Plan (SIP)

DFW/BPA Rules and Plans Adopted on April 19, 2000

Houston/Galveston Rules and Plans Adopted on Dec. 6, 2000

30 TAC Chapter 114

Proposed Revisions

On May 10, 2001, the Commission approved proposed changes to the State Implementation Plan for Houston/Galveston's ozone nonattainment area. On May 30, 2001, the Commission considered additional revisions to the SIP and Chapter 117 Rules, and new proposed revisions to Chapter 101. Due to these additional revisions, another public hearing has been scheduled and the comment period has been extended until July 2, 2001.

The proposed revisions to the SIP includes:

- Chapter 114, Vehicle Idling Restrictions - Revisions to the idling restriction rules. Clarifies that the operator of a rented or leased vehicle is responsible for compling with the requirements of Chapter 114 in situations where the operator is not employed by the owner of the vehicle (the Commission committed to making this change when the rule was adopted in December 2000)
- Chapter 114, Clean Diesel Fuel - Revisions to the clean diesel fuel rules. Provides greater flexibility in complying with the requirements of the rule while preserving the emission reductions necessary to demonstrate attainment in the HGA area
- Chapter 117, Point Source NO_x - Revisions to the point source NO_x rules regarding: timing of current control levels; alternative level of control for the electric generating utilities based upon a more cost effective and equivalent level of ozone reduction that will be achieved for the reduction of certain grandfathered facilities in the eastern half of the state as a result of legislation recently passed; alternative control provided the scientific justification in June of 2002 is sufficient
- Chapter 117, Stationary Diesel and Dual-Fuel Engines - New stationary diesel engine rules. Developed as a result of the state's analysis of EPA's reasonably available control measures
- SIP Narrative - Corrections to the ROP table/budget for 2005 due to a mathematical inconsistency; incorporation of the three rule proposals; and the layout of the mid-course review process which details how the state will fulfill the commitment to obtain the additional emission reductions necessary to demonstrate attainment of the 1-hour ozone standard in the HGA area.
- Chapter 101, Cap and Trade - Revisions concerning the timing of

reductions under the Cap and Trade Program to be consistent with Chapter 117, and adjusting the rate at which DERCs will be devalued.

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Revision Summaries

Short Title	Staff Contact	Proposal (Portable Document Format)	Proposal (WordPerfect 8.0)
Vehicle Idling Restrictions	Scott Carpenter 512/239-1757	Proposal	Proposal
Clean Diesel Fuel	Morris Brown 512/239-1438	Proposal	Proposal
Point Source NO_x/Stationary Diesel and Dual-Fuel Engines	Eddie Mack 512/239-1488	Proposal	Proposal
Houston/Galveston SIP	Heather Evans 512/239-1970	Proposal Redlined Version*	Proposal Redlined Version*
Cap and Trade	Matt Baker 512/239-1091	Proposal	Proposal

*This document contains highlighted text indicating the new language that was added between the May 10 and May 30, 2001 versions.

Word Perfect (Help with downloading files.)
Portable Document Format (PDF).(Help with PDF.)

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Public Hearings

The Commission will hold the following public hearings:

City	Date	Time	Location
Galveston	June 13, 2001	6:00 p.m.	City Council Chambers 823 Rosenberg, Room 200
Rosenberg	June 14, 2001	10:00 a.m.	Civic and Convention Center 3825 Highway 36 South, Room C
Houston	June 14, 2001	6:00 p.m.	City Hall Council Chambers 901 Bagby
Austin	June 15, 2001	10:00 a.m.	TNRCC Complex 12100 N. I-35 Building E, Room 201S
Houston	July 2, 2001	6:00 p.m.	City Hall Council Chambers 901 Bagby

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How to Submit Comments

Written comments will also be accepted by e-mail, fax, or mail. **Written comments must be submitted to the TNRCC by 5:00 p.m. July 2, 2001, or hand-delivered at the public hearing on July 2nd.**

E-mail: siprules@tnrcc.state.tx.us
FAX: Heather Evans, (512) 239-4808
Mail: Heather Evans, TNRCC, MC206, P.O. Box 13087, Austin, TX 78711-3087

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Air Quality

NSR Enforcement – The Long and Winding Road
Or
Money (That's What I Want)

Jim Myers – RMT
Julian Levy –Zephyr Environmental Corporation
Jennifer Seinfeld – Zephyr Environmental Corporation

Introduction

When the Environmental Protection Agency (EPA) was reorganized by Administrator Carol Browner in the early 1990's, the Office of Enforcement and Compliance Assurance (OECA) was formed by consolidating the enforcement functions of other agency programs into a single office. This created a new enforcement arm of the agency, which reports directly to the Administrator with no policy constraints from other programs.

The result has been that in recent years, the EPA has initiated a number of high-profile enforcement initiatives alleging widespread noncompliance with federal new source review (NSR) permit requirements for air quality. Beginning with wood products, pulp and paper, electric utilities and most recently petroleum refineries, the EPA has filed lawsuits, issued enforcement orders, and entered agreed judgements alleging that major sources have been "modified' without the required NSR permits.

Background

The federal NSR requirements are codified in Parts C and D of Title I of the Federal Clean Air Act (FCAA). These sections were added by Congress in 1977 and provide for permitting in clean (attainment) or dirty (nonattainment) areas. The permitting program for attainment areas is called the Prevention of Significant Deterioration (PSD) program (implemented in 40 CFR 52.21), while the permitting program for nonattainment areas (implemented in 40 CFR 52.24) is usually referred to as nonattainment NSR. Generically, both permitting programs are referred to as NSR. The NSR rules have been relatively unchanged since 1980 for all industries except the electric utility industry. (In 1992, the NSR rules were amended as a result of a case against Wisconsin Electric Power Company (WEPCO))[1]The NSR rules set forth the requirements that must be met in order to be granted a permit to construct or modify a facility. In short, companies are required to obtain preconstruction permits and install state-of-the-art control technology on facilities where the construction or modification of a major source results in a "significant" increase in emissions.

Congress did not require existing sources to install immediately the pollution control equipment the FCAA requires for new sources. Instead, Congress provided that existing major sources would become subject to the FCAA's requirements when these sources are "modified", thus, the term "major modification" is a key term used in the FCAA to determine whether a source is subject to NSR requirements.

The definition of "major modification" is the same for both the PSD and nonattainment NSR permit programs. "Major modification" is defined in 40 CFR 52.21 and 52.24 as follows:

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[1] In the WEPCO case, a federal court opinion established the basis for a change in the way an electric utility calculates the "net emissions increase" of a physical change or a change in method of operation of a major source.

"Major modification means any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Perhaps the most contentious and confusing issue surrounding federal NSR applicability is not the determination of what ***is*** a "modification", but rather what is ***not*** a modification. The provisions in 40 CFR 52.21 and 52.24 pertaining to "modifications" provide a limited number of exemptions to the major modification definition. (The FCAA itself does not include these exemptions.) One of these exemptions that has been the object of a number of landmark court cases, known generally as the "routine maintenance exemption", provides that

"A physical change or change in the method of operation shall not include... routine maintenance, repair, and replacement...."

Thus, for some types of projects, a critical step in determining federal NSR applicability is assessing whether the project can be classified as "routine maintenance, repair, and replacement". Although the regulations do not elaborate further on the meaning of this phrase, there have been other important developments with implications to this issue. In 1988, WEPCO proposed to renovate the Port Washington power plant and asserted that the changes planned met the routine maintenance exemption. In a series of applicability determinations in 1988 and 1989, EPA ruled that the planned renovations proposed by WEPCO would constitute a "major modification" under the PSD provisions of the FCAA. Specifically, EPA classified the proposal by WEPCO to replace steam drums, air heaters, and other equipment at the Port Washington power plant, part of a comprehensive "life extension" project undertaken at older units that were nearing their useful life, as a nonroutine change subject to federal NSR requirements. EPA explained that the determination as to whether a particular repair or replacement is "routine" is made by weighing the nature and extent, purpose, frequency, and cost of the project as well as other relevant factors, to arrive at a common sense finding. On January 19, 1990, the United States Court of Appeals for the Seventh Circuit affirmed EPA's determination that the WEPCO replacements were nonroutine on the grounds that they were "massive" and "unprecedented". When the NSR rules were amended in 1992 as a result of the WEPCO decision, EPA provided the following guidance in the Preamble:

"The determination of whether the repair or replacement of a particular item of equipment is "routine" under the NSR regulations, while made on a case-by-case basis, must be based on the evaluation of whether that type of equipment has been repaired or replaced by sources within the relevant industrial category."

The factors established in the WEPCO case for routine maintenance have been applied to several other companies (including cases against TVA and Detroit Edison)[2] that argued proposed changes met the criteria of this exemption, and should not be subject to NSR.

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[2] Information pertaining to the TVA case is taken from the Proceeding before the Environmental Appeals Board, CAA Docket No. 00-06, dated December 15, 2000. Information pertaining to the referenced Detroit Edison case is taken from a document prepared by EPA entitled "Detroit Edison Applicability

Discussion

The first federal NSR regulations were promulgated in 1974. Since that time, companies and many state agencies have made numerous determinations regarding the applicability of the routine maintenance exemption to capital projects and plant renovations. Until the WEPCO case in the late 1980's, virtually no policy or guidance was issued by EPA addressing the application of the routine maintenance exemption. EPA silence has led industry and state regulatory agencies to conclude that they were interpreting these rules correctly. Now, however, EPA uses findings derived from the WEPCO case, as well as from the TVA and Detroit Edison cases, to assess what is "routine". Armed with this ever-evolving *policy* (not a rule) on routine maintenance, EPA has launched an aggressive enforcement initiative targeting specific industry sectors for investigation of potential violations of federal NSR permit programs. This "policy creep" results in government of the regulated community that is extremely unfair. Regulators are making NSR applicability determinations on the basis of a policy, not a regulation that has undergone proper rulemaking procedures, including public comment and review. In addition, there is no guidance on routine maintenance which sets a minimum floor, below which the project comes within the scope of the exemption, or which contains specific examples of the type of activities that can actually be considered routine maintenance. Further, there is no guidance for weighting of the various factors used in assessing what is routine. Within the case for changes undertaken at a number of TVA facilities, TVA argued that EPA had changed its interpretation of the routine maintenance exclusion without fair notice. The Environmental Appeals Board rejected that argument on the basis that the FCAA covers "any physical change", and the routine maintenance exclusion is provided only in the regulations, not in the statute. The following are among the plethora of factors EPA now uses to determine whether a change meets the routine maintenance exemption:

- Whether the collection of activities taken as a whole, constitutes a non-routine effort, notwithstanding that individual elements could be routine;
- Whether the change requires the addition of parts to existing equipment
- Whether the change extends the useful life of the unit;
- Whether the change is performed frequently in a typical unit's life;
- Whether the change is costly, both in absolute terms and relative to the cost of replacing the unit;
- Whether the change will take a significant amount of time to perform;
- Whether major components of a facility are being modified or replaced; and
- Whether the change could be performed during full functioning of the facility.

The impact of this policy is profound on the industrial sector. If all of these factors must be considered, virtually all process renovations, major turnarounds, and process optimization and capital improvement projects will trigger major NSR applicability analysis. Perhaps most disturbing about the above list (which is not nearly the entire list of factors considered in past cases) is the range and breadth of the items listed. Consider the final two factors listed above.

Determination, Detailed Analysis", enclosed with a May 23, 2000 letter from Francis X. Lyons, Regional Administrator of EPA to Henry Nickel, Counsel for the Detroit Edison Company.

The regulated community would probably agree that replacing a "major component" of a facility might not be eligible for the routine maintenance exemption. But if the change has to be able to be performed during full functioning of the facility, how many maintenance activities could be accomplished? Most reasonable persons would agree that repairing a flat tire is a normal maintenance requirement for an automobile, but one certainly can't change a tire while the car is moving!

In determining if an emission increase is significant for purposes of NSR permitting, in general, a facility (except the electric utility industry) must compare its allowable emissions after a modification to its actual emissions prior to the modification. Because allowable emissions are usually based on continuous operation at full capacity, the allowable emission rate is typically far in excess of the actual emission rate. Therefore, this difference is usually larger than the published "significant" emission rate levels resulting in nearly every physical or operational change having a calculated significant net emissions increase, and triggering NSR permitting. The industries EPA has targeted have large emission rate point sources (recovery boilers, FCCUs, and utility boilers). These facilities typically operate with the difference between their allowable and actual emissions greater than the PSD significance levels; therefore, they are vulnerable for second-guessing past determinations.

EPA uses the Section 114 letter as a tool to develop information to support its NSR enforcement actions against companies. Section 114 is the section of the FCAA that authorizes EPA to request whatever information it deems necessary to determine whether a source is in compliance with air pollution regulations. Section 114 letters are typically very broad and ask for information dating from 1980 to the present that can include the following: historical emissions data (actual, potential, and allowable emissions); stack tests and monitoring reports; permits and permit applications; production records; a list of capital expenditures; and engineering studies describing the purchase, repair, replacement, upgrade, or expansion of all equipment within the plant. These requests are not trivial and can literally result in the production of truckloads of documents. Attempting to provide the data requested in Section 114 letters will likely trigger other questions, including:

- How did allowable emissions change over time?
- How should potential and allowable emissions be quantified for sources like storage piles or road dust?
- How should historical actual emissions be determined (e.g., using dated emission factors or more recent stack tests)?
- Is information needed to determine the net change in emissions (per NSR calculation methodologies) for *every* capital expenditure?
- How should requests for missing or unavailable information be handled?

EPA looks for evidence of significant increases in production capacity at a plant where no major NSR permit has been issued. These data are readily available in trade journals, and have been used by EPA in targeting certain industries and corporations. Specifically, EPA is suspicious if a company attains a significant capacity (or throughput) increase without triggering major NSR under the current EPA policies. Of course, it is entirely possible to legally increase capacity or throughput without triggering NSR. A company may account for decreases in actual emissions within the plant during the contemporaneous period of the proposed modification to achieve

the capacity increase [3] to "net against" the calculated increases. If the net emissions increase is not significant, then NSR isn't applicable to the project. Note that all changes in emissions, including past actual increases in emissions, must be accounted for in the netting exercise. Of course, a company can also avoid NSR if the changes necessary to achieve the capacity increase meet the criteria of one of the exemptions from the definition of major modification. For example, one of these exemptions allows a source to increase throughput or hours of operation as long as it isn't limited by a federally enforceable permit condition without triggering NSR. Probably the most widely used exemption in the past has been the routine maintenance exemption discussed earlier, but given EPA's narrowed interpretations of how it can be applied, depending on this exemption could be risky.

The results of the Sections 114-initiated NSR enforcement are indeed impressive. Armed with new Administrator supported policy, the EPA has an unparalleled record of fines and control equipment expenditures. Most companies faced with twenty years worth of records and decisions based on "old" policy would rather negotiate an agreement rather that fight EPA. The following table summarizes some recent NSR settlements. As mentioned earlier, EPA has targeted pulp and paper, utilities, and the refining sectors. A copy of a refinery Section 114 letter is attached in Appendix A. Other sectors, including the cement industry, have also received Section 114 requests. Recently, chemical plants in Texas received the first Sections 114 letters in that industry sector. A generic chemical plant Section 114 letter is attached in Appendix B.

Recent EPA NSR Enforcement Settlements

Date	Company	Control Cost **Millions $**	Penalty **Millions $**	SEP Cost **Millions $**
2/29/00	Tampa Electric		$3.5	$10
7/20/00	Willamette Ind.	$74	$11.2	$8
7/25/00	BPAmoco	$500	$10	
7/25/00	Koch	$90	$4.5	
11/16/00	Virginia Electric		$5.3	$13.9
12/22/00	Cinergy	$1400	$8.5	$21.5
3/13/01	Shell/Motiva/ Equilon	$400	$9.5	$5.5
5/11/01	Marathon/ Ashland	$265	$3.8	$6.5
7/12/01	Premcor (formerly Clark Refining and Marketing)	$20	$2.0	(Several SEPs will be implemented, but costs haven't been released)

[3] The "contemporaneous period" is described within the PSD definition for "net emissions increase" regulations as "an increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between: (a) the date five years before construction on the particular change commences; and (b) the date that the increase from the particular change occurs". 40 CFR 52.21(b)(3)(ii).

Recent Developments

With the arrival of the Bush administration and selection of Christine Whitman as Administrator, there were high hopes in the regulated community that a more reasoned approach to NSR implementation and enforcement might be in the offing. These hopes were dulled somewhat when the Administration idea to devolve OECA was met with industry trade organization opposition. Hopes were further dashed with the Administration's announcement of the recent settlements earlier this year that seem to portend business as usual.
There is some hope, however, as pressures from the energy supply side has spurred congressional interest and EPA activity. In the National Energy Policy Report issued in May, 2001, the National Energy Policy Development (NEPD) Group recommended that the EPA Administrator, in consultation with the Secretary of Energy, examine the NSR regulations, including administrative interpretations with respect to the impact of NSR on investment in new utility and refinery capacity, energy efficiency, and environmental protection. A background paper (entitled NSR 90-Day Review Background Paper) is now available (http://www.epa.gov/air/nsr-review) for public comment. The background paper gives an overview of the NSR program and how it relates to the utility and refinery capacity, energy efficiency, and environmental protection. As part of the NSR regulations review process, EPA has held four public meetings across the country to take comment on the background paper and gather additional information. EPA will also be holding meetings with outside stakeholders, including affected industries, environmental groups, and state and local governments. At the end of the review period, EPA will issue a report to the President, summarizing NSR data related to the electricity generating and petroleum refining industries, and examine whether NSR, including issues associated with permitting and compliance, have had a negative impact on investments in new capacity. The report is also to include recommendations on how to improve NSR and minimize adverse impacts on the energy industry. Concurrent with the 90-day NSR review, a Department of Justice review of existing enforcement actions regarding NSR is being undertaken to ensure those actions are consistent with the FCAA and its regulations. While related in subject area, the two reviews are separate, with the Justice review focusing on narrow legal issues of statutory and regulatory consistency.

It is hoped that these efforts will energize the NSR Reform effort so that meaningful improvements to the NSR process can be actually implemented.

Conclusion

While EPA's recent interpretation is subject to multiple challenges in courts, industry should take certain actions to minimize liability, provide for production growth, and develop strategic permit planning. The following recommendations should be considered in the face of the current EPA enforcement posture regarding NSR permitting:

1. Develop an environmental "management of change" program

Most companies are subject to the process safety management standards of OSHA (29 CFR Part 1910). These standards require, among other things, that a safety review be completed prior to

any process changes. A parallel environmental review program should also be implemented to evaluate all environmental consequences including permitting implications of any changes. Documentation should address NSR permit applicability and the rationale for any conclusions. Along these lines, plant management should be educated and informed on how NSR applicability is determined.

2. Develop a strategic plan for projects

Because of the uncertain timeline and the protracted reviews that can be encountered in NSR permitting, it is important for companies to continually plan strategically for plant expansions. Voluntary emission reduction projects should never be initiated without considering future expansions and the contemporaneous period increases and decreases. Timing can be everything. In many cases, expansion projects may be paired with reduction projects to "net out" of NSR permit requirements.

3. Implement an emission increase/decrease tracking system

Since NSR permit applicability is based on calculating the net emissions increase over a contemporaneous period, it is important that actual emissions changes be accurate, creditable, and tracked on a timeline. This is essential for making correct contemporaneous period netting calculations.

4 Use care in AFE justification language

Most companies have a capital expenditure process, typically identified as the Authorization for Expenditure (AFE), for the approval of projects. To assure approval of projects, many process engineers are "exuberant" in their claims regarding the benefits of the expenditure, relating to production increases and efficiency improvements. In the past, EPA used documents of this type as evidence that "nonroutine " changes were made that should have triggered NSR permitting.

5. Review all emission allowables

Proposing artificially high permit allowables can be a mistake. A common misconception among plant management is that any type of change can be made to an emissions unit without triggering NSR, as long as the emissions are within the permitted allowable levels. Too often, companies propose stack allowables, far beyond the equipment capacity, thinking that this will allow more operational flexibility. This sets-up a scenario where there is an unnecessarily large difference between the actual and allowable emission rate. As such, using the "actual to potential" emissions calculation methodology, NSR will likely be triggered for any physical or operational change. In some cases, NSR permitting could be avoided by voluntarily lowering existing permit allowables.

6. Develop a Section 114 letter response plan

Responding to a Section 114 letter is no trivial task. A team must be identified and assembled to identify all segments of the organization that will be affected in data gathering for the response. Competent legal and environmental consulting support is a must. Additionally, decisions must be made on what data should be considered "confidential business information". Typically, the Section 114 letter required response date is unreasonable and EPA is usually agreeable to an extension. Remember the data provided can be used against you.

7. Consider EPA's Self-Policing and Voluntary Disclosure Policy

Although this program may not provide amnesty from enforcement actions, facilities that promptly correct and report violations discovered through a compliance management system may receive some enforcement relief. So, if a facility feels they should take a second look at past NSR applicability determinations for historical modifications, consider negotiating an agreement with EPA under this policy.

Appendix A

[redacted]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

CC [redacted]

In Reply Refer To: [redacted]

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

[redacted]
Environmental Coordinator
[redacted]

Re: Requirement that [redacted] Provide Information Regarding Operation of Its Petroleum Refinery Located [redacted] (Authority: Clean Air Act, Section 114, 42 U.S.C. § 7414)

[redacted]

Dear [redacted]:

The United States Environmental Protection Agency ("EPA") hereby requires [redacted] to provide certain information regarding its refinery located in [redacted] ("the facility"). EPA requires this information as a part of an investigation of [redacted] compliance with the Clean Air Act ("the Act"), 42 U.S.C. § 7401 et seq. and the regulations promulgated thereunder including, 40 C.F.R. Part 60 Subpart J, "Standards of Performance for Petroleum Refineries," 40 C.F.R. Part 51 Subpart I, "Review of New Sources and Modifications" and the federally approved air pollution control requirements of the [redacted] State Implementation Plan ("[redacted] SIP"). These requirements specify, among other things, sulfur content in fuel limit, reporting and recordkeeping requirements, emission standards for particulate, visible emissions and sulfur oxides and monitoring of emissions.

Section 114 of the Act, 42 U.S.C. § 7414, provides, in pertinent part, that the Administrator may require any person who owns or operates any emissions source to provide information reasonably required for the purpose of determining whether that person is in violation of, among other things, any requirements of the SIP ("Information Request"). In order for EPA to determine whether such a violation has occurred, [redacted] is hereby required, pursuant to §114 of the Act, 42 U.S.C. § 114, to provide detailed information in response to the following questions regarding [redacted] plant located in [redacted], [redacted].

A. INSTRUCTIONS

1. Please provide a separate narrative response to each question and subpart of a question set forth in this Information Request and precede each answer with the number of the question to which it corresponds.

2. Identify each person responding to any question contained in this Information Request on behalf of [redacted], as well as each person consulted in the preparation of a response.

3. For each question, identify each document consulted, examined, or referred to in the preparation of the response or that contains information responsive to the question, and provide a true and correct copy of each such document if not provided in response to another specific question.

4. Indicate on each document produced in response to this Information Request, or in some other reasonable manner, the number of the question to which it corresponds.

5. If requested information or documents are not known or are not available to [redacted] at the time of [redacted] response to this Information Request, but later becomes known or available to [redacted], [redacted] must supplement its response to EPA. Moreover, should [redacted] find at any time after submission of its response that any portion is or becomes false, incomplete, or misrepresents the facts, [redacted] must provide EPA with a corrected response as soon as possible.

B. DEFINITIONS

All terms used in the Information Request will have their ordinary meaning unless such terms are defined in the Act, 42 U.S.C. § 7401 or 40 C.F.R. Part 52 (which incorporates the federally-approved State Implementation Plan). Reference is, made to the EPA regulatory provisions only; however, you should apply the applicable federally-approved state provisions when appropriate. Definitional clarification for several terms is specified below.

1. The term "potential emissions" has the same meaning as "potential to emit" as defined in 40 C.F.R. § 52.21(b)(4) and shall have only that meaning within the context of this Information Request. In calculating the maximum capacity of a stationary source to emit a pollutant under its physical and operational design, upstream and downstream process bottlenecks as well as any ancillary emission units must be included.

For example: (a) At a refinery, the heater for a crude unit distillation column may be capable of operating at 1000 mmBTU/hr heat input capacity which we will assume

corresponds to 200 million BPD of refining capacity. If the crude unit distillation column was capable of operating at a maximum of 100 million BPD which is assumed to correspond to 500 mmBTU/hr, the potential to emit of the heater, assuming no other smaller bottlenecks in upstream or downstream processes, would be based on a rate of 500 mmBTU/hr and 100 million BPD and the worst case polluting fuel that the unit is permitted to and capable of firing. Similarly the potential to emit for all other up stream or downstream emission units would be limited to a potential to emit based on 100 million BPD unless another bottleneck at the refinery limited it to something less.

(b) Suppose a modification were undertaken on the crude unit to increase refining capacity from 100 million BPD to 150 million BPD which we assume corresponds to 750 mmBTU/hr on the crude heater. The baseline emissions would be calculated based on the average of actual emissions for the two years prior to the change. The post-change potential to emit would be calculated based on a 750 mmBTU/hr firing rate due to the physical constraint of crude through the distillation column and not the heater's maximum firing rate of 1000 mmBTU/hr. Post-change potential to emit would be calculated based on the most polluting fuel the heater is permitted to and capable of firing.

2. The terms "document" and "documents" shall mean any object that records, stores, or presents information, and includes writings, memoranda, records, or information of any kind, formal or informal, whether wholly or partially handwritten or typed, whether in computer format, memory, or storage device, or in hard copy, including any form or format of these. If in computer format or memory, each such document shall be provided in translation to a form useable and readable by EPA, with all necessary documentation and support. All documents in hard copy should also include (a) any copy of each document which is not an exact duplicate of a document which is produced; (b) each copy which has any writing, notation, or the like on it; (c) drafts; (d) attachments to or enclosures with any document; and (e) every other document referred to or incorporated into each document.

3. The term "air pollutant(s)" shall, for the purpose of this Information Request, be limited to:

   a. Sulfur dioxide (SO_2);
   b. Oxides of Nitrogen (NO_x);
   c. Carbon monoxide (CO);
   d. Particulate (TSP or PM_{10}, as applicable);
   e. Hydrogen sulfide (H_2S);
   f. Total Reduced Sulfur (TRS);
   g. Sulfuric acid (H_2SO_4); and

h. Volatile Organic Compounds (VOC).

4. An "air pollution reduction practice" is a practice which is carried out for the purpose of reducing air pollution but which does not have an associated piece of control equipment which can be ascribed to the emission reduction. Examples of an air pollution reduction practice include, but are not limited to, limiting the hours of operation of an emissions unit through a permit restriction or firing a heater with natural gas instead of fuel oil to reduce particulate emissions.

5. The term "air pollution control device" includes all equipment installed for the purpose of reducing air pollutant emissions and all process equipment that may have been installed for other purposes but has the practical effect of reducing air pollutant emissions.

6. "Product" shall include all products, by-products, co-products, and waste products. For the purpose of this Information Request it shall include, but not be limited to,: elemental sulfur, liquefied petroleum gas, propane, butane, alkanes, gasolines, jet fuels, kerosene, fuel oils, coke, asphalt, all intermediate or partially finished petroleum products such as gas oils, reformate, and any other material produced and sold [redacted].

C. INFORMATION REQUESTS

Please provide the following information for [redacted] facility located at [redacted]

1. Provide all existing process flow diagrams (not the piping and instrumentation diagrams) and a site plan for the facility. If existing process flow diagrams do not represent current configuration or rates state so and provide current configurations and rates where appropriate. On the diagrams and site plan using a key for clarity purposes, identify each air emission unit at the facility that emits an air pollutant and the corresponding air emission control equipment. Include each emission unit on contiguous or adjacent properties under the control of or owned or operated by [redacted]. Provide a separate list of emission units with the descriptive name and unit ID number.

2. Provide a detailed narrative description of the current processes at the facility from introduction of raw material sequentially through to disposition of products, describing each air emission unit in relation to the process. Refer to each of the relevant process flow diagrams and site plans wherever possible. Provide the description using the same conventions used by the facility for division of the facility into process units and vessels (hereinafter, each a "process unit" or "vessel", respectively). In the narrative describe the function of each vessel in the process unit.

Describe in detail the chemical or physical process occurring at each stage of the process and in each vessel of the process.

3. Identify and describe each piece of air pollution control device currently installed or each air pollution reduction practice currently implemented at the facility and provide the date of installation or implementation. Describe in detail how each air pollution control device or practice limits air emissions from each source, and how effectively (in terms of removal efficiency, capture efficiency, distribution efficiency, etc.) each air emission is limited by the corresponding equipment or practice.

4. Provide the following information for each month of each year since 1990 for all the products that the facility has produced since 1990:

   a. a list of product names;

   b. a quality control specification of each product that includes sulfur content, nitrogen content, density, reid vapor pressure and API gravity;

   c. amount of each product produced in barrels and pounds for each month and a total for each year;

   d. amount of each product shipped in barrels and pounds for each product shipment;

   e. total amount of product shipped in barrels and pounds for each month and for each year;

   f. the sulfur content of each product shipment and an average sulfur content for each product for each month; and

   g. all analyses used to determine sulfur content for each product shipment.

5. Provide a copy of each feasibility or engineering study conducted since 1980 to determine present and future production potential for the refinery as a whole and for individual process units or pieces of equipment, including both existing equipment and new construction.

6. Provide copies of all documents such as capital expenditure requests, justifications, or authorizations, including attachments and addenda, which authorized a physical change or change in the method of operation for all projects undertaken since 1980 and which had an actual, anticipated or potential increase on production or processing capacity of greater than 1% of the unit's capacity for each piece of process equipment for all process units at the facility. For each request, justification, or authorization state

whether the project was implemented.

7. Provide for each year the facility has operated since 1990 the total number of hours of operation of the facility and each process unit for each year and each month.

8. Provide for each month of each year since 1990:

   a. monthly average crude refining rate in barrels per day;

   b. monthly average operating rate of each process unit in barrels per day, millions of standard cubic feet per day, or tons per day as appropriate;

   c. amount and origin of crude and any other raw or feed materials for each shipment received during that month tabulated separately for each type of material and for each process unit;

   d. an average of all analyses for each shipment of crude and any other raw or feed materials received at the refinery that is correlated to the list produced in response to c. above that describes total sulfur content, reid vapor pressure, densit and API gravity;

   e. amount and origin of each type of crude and other raw or feed materials processed during that month tabulated separately for each type of material and for each process unit; and

   f. an average of all analyses for each type of crude and any other raw or feed materials processed at the refinery that is correlated to the list produced in response to e. above that describes total sulfur content, reid vapor pressure, density and API gravity.

9. Provide for each month of each year since 1990 the following parameters in barrels per day, pounds per day, or a percentage, as appropriate, and on a monthly average basis:

   a. Fluidized Catalytic Cracking Unit (FCCU) recycle rate and sulfur content;

   b. FCCU fresh feed rate and sulfur content;

   c. FCCU total feed rate and sulfur content;

   d. FCCU product stream rate (feed to FCCU fractionator) and sulfur content;

   e. FCCU fractionator product stream rates and sulfur

content;

f. FCCU fresh catalyst makeup;

g. FCCU spent catalyst blowdown.

10. Provide for each month of each year since 1990 the following parameters in standard cubic feet per day or pounds per day, as appropriate, and on a monthly average basis:

a. Claus sulfur recovery plant (CSRP) fresh feed rate and hydrogen sulfide content;

b. CSRP recycle rate and hydrogen sulfide and sulfur dioxide contents;

c. elemental sulfur production;

d. conversion efficiency of the CSRP;

e. conversion efficiency of the CSRP in combination with any tail gas unit such as a SCOT unit.

11. Provide for each month of each year since 1990 the following parameters in barrels per day, pounds per day, or a percentage, as appropriate, and on a monthly average basis:

a. Catalytic Reforming Unit (CRU) recycle rate and sulfur content;

b. CRU fresh feed rate and sulfur content;

C. CRU total feed rate and sulfur content; and

d. CRU product stream rate and sulfur content.

12. Provide for each month of each year since 1990 the following parameters in barrels per day, pounds per day, or a percentage, as appropriate, and on a monthly average basis:

a. Catalytic Hydrotreating Unit (CHTU) recycle rate and sulfur content;

b. CHTU fresh feed rate and sulfur content;

c. CHTU total feed rate and sulfur content; and

d. CHTU product stream rate and sulfur content.

13. Describe in detail the sampling program for all process streams that are sampled for sulfur content. For each stream that is sampled and analyzed for sulfur content, provide:

a. a description of the location of the stream using stream number references and process flow diagram number references that correlate to the process flow diagrams submitted in response to request c.1; and

b. a description of the frequency of the sampling and analysis.

14. Provide for each combustion device, including each boiler, process heater and flare for each month of each year since 1990:

a. the fuel firing capabilities of each combustion device;

b. the maximum rated capacity of the combustion device fired under each type of fuel it is capable of firing;

c. the amount of each type of fuel consumed in each combustion device, including but not limited to natural gas, fuel gas, fuel oil, and LPG; and

d. the monthly average sulfur content and density of the fuel consumed in each combustion device.

15. If the fuel type firing capability or maximum rated capaci of any combustion device has changed since 1980, provide for each such combustion device a detailed description of the change including the old and new fuel capabilities and the old and new maximum rated capacity.

16. Provide a diagram of the fuel gas system(s) that identifies:

a. the origin of each stream contributing to the fuel gas system with approximate or measured flows and sulfur contents under current configuration and maximum refining rates;

b. all points of collection and mixing;

c. the location of all analyzers measuring flow, density or sulfur content;

d. the location of all fuel gas treatment processes;

e. the location of all devices, including but not limited to boilers, process heaters, and flares, in which fuel gas can be combusted with approximate or measured flows and sulfur contents of the feed stream under current configuration and maximum refining rates;

f. the location of all points where the fuel gas can

be discharged directly to the atmosphere including bypasses and pressure relief valves; and

g. approximate or measured flows and sulfur contents under current configuration and maximum refining rates for each stream between points of generation, mixing, treatment, discharge, and combustion.

17. Provide a detailed description of the fuel gas treating process. Describe the absorption media, flows, pressures, temperatures, and all other important parameters that affect the overall efficiency of the fuel gas treatment process. Describe the overall efficiency of the fuel gas treatment process and the efficiency of each stage of the process. Include all stages of the fuel gas treatment process in the description including each stage of amine absorption, amine stripping, fuel gas polishing and any other stage that contributes to the removal of sulfur from the fuel gas.

18. Provide the concentration of each air pollutant emitted from each emission unit described in response to question C.3 in as much detail as is possible based on emissions testing and monitoring data as well as process knowledge (i.e., include concentrations of each pollutant, total volumetric flow rate from the emission unit and mass flow rate of each pollutant). If the concentration of the emissions from any source has changed since the emission unit began operation (or since 1980, which ever is later) due to a physical change or a change in the method of operation, describe the concentration of the emissions both before and after the change. Provide copies of all documents, including any monitoring records, specific test methods, calculations and definitions used to determine the answers provided. Whenever possible, use the test methods and definitions for the affected pollutants from the federally-approved Prevention of Significant Deterioration ("PSD") provisions which were in effect at the time of the emissions being calculated. When these data are unavailable, utilize the most accurate data available and provide any assumptions used in performing the underlying analyses.

19. Provide the actual emissions from each of the emission units listed in response to paragraph C.3 of each of the air pollutants for each month of each year that each emission unit has operated since 1980. Provide copies of all documents, including any monitoring records, specific test methods, calculations and definitions used to determine the answers provided. whenever possible, use the test methods and definitions for the affected pollutants from the federally-approved PSD provisions which were in effect at the time of the emissions being calculated. When these data are unavailable, utilize the most accurate data available and provide any assumptions used in performing the underlying analyses.

20. Provide the "potential emissions" from each of the emission units listed in response to paragraph C.3 of each of the air pollutants within the meaning of 40 C.F.R. § 52.21(b)(4) for each year each emissions unit has operated since 198 If the "allowable emissions," within the meaning of 40 C.F.R. § 52.21(b)(4), changed during the course of a calendar year, specify the date of the change and reference all documents authorizing the change. Provide copies of all documents, including, any monitoring records, specific test methods, calculations, and definitions used to determine the answers provided. Whenever possible, use the test methods and definitions for the affected pollutants from the federally-approved PSD provisions which were in effect at the time of the emissions being calculated. When these data are unavailable, utilize the most accurate data available and provide any assumptions used in performing the underlying analyses.

21. Provide the production capacity of each process unit at the refinery in barrels per calendar day for petroleum intermediates or products, or for other intermediate and final products such as elemental sulfur or hydrogen for each year since 1980.

22. Provide the date for which "construction" "commence[d]," as those terms are defined in 40 C.F.R. § 52.21(b), for each process unit and each emission unit identified in respons to paragraph C.3 at the facility. Provide copies of documents necessary to establish the appropriate dates for each process unit and emission unit.

23. Describe each change to a process unit or emission unit at the facility since 1980 (including, additions of equipment, or other physical changes or changes in method of operation) since operation commenced, that has resulted in any increase in throughput or emissions of air pollutants. Describe the date, nature, and purpose of each such change and the difference in operation, production, and both actual emissions as defined in 40 C.F.R. § 52.21(b)(21) for the air pollutants and potential emissions from the process unit or emission unit because of the change. Quantify the "net emissions increase," within the meaning of 40 C.F.R. § 52.21(b)(3)(i), associated with each change for the air pollutants. Include any reasoning why the change is not a "significant" "net emissions increase" as those terms are defined by 40 C.F.R. § 52.21. Provide copies of all documents, including any monitoring records, specific test methods, calculations, and definitions used to determine the answers provided. Whenever possible, use the test methods and definitions for the affected pollutants from the federally-approved PSD provisions which were in effect at the time of the emissions being calculated. When these data are unavailable, utilize the most accurate data available and provide any assumptions used in performing the underlying analyses.

24. Provide a copy of and list each permit application (and any addenda thereto) submitted to EPA or the [redacted] for a permit for construction or operation of all or any part of the facility.

25. Provide a copy of and list each emission reduction credit or permit that has been issued by EPA or [redacted]. If any change to the facility described in response to paragraph C.23 was not permitted, describe why it was not. Provide a copy of all correspondence with a permitting agency relating to obtaining each notice, order, or permit issued, or relating to the need for a permit for any change not permitted.

26. Characterize each permit which responds to the previous question as PSD (40 C.F.R. § 52.21), major non-attainment new source review, minor new source review, or other (describe in detail).

27. If [redacted] has ever been granted, or has been told by a permitting authority that the facility is entitled to, a waiver or variance of any permitting requirement, emissions limitation, or other requirement that could otherwise be applicable to the facility, provide a copy of all documents describing the waiver or variance, application for it, granting of it, and the reason it was considered appropriate.

28. Describe the current status (e.g., pending, good standing, suspended, disputed, subject to amendment, etc.) of each permit issued to the facility.

29. Describe the frequency and nature of all air emissions monitoring, testing, inspections, and record keeping at the facility for each emissions point identified in response to paragraph C.3, including the related emission control equipment. Describe the purpose for each (i.e. compliance, permit requirement, agency requested, or other).

30. For each continuous emissions monitoring system (CEMS) installed for process or regulatory compliance purposes:

    a. describe the location of installation;

    b. provide a copy of the operations manual for the CEMS;

    c. describe the quality assurance/quality control (QA/QC) practices followed including daily, monthly quarterly or annual calibration tests and state whether the QA/QC practices satisfy the requirements of 40 C.F.R. Part 60, Appendix F; and

    d. state whether the CEMS has been performance specification tested as per 40 C.F.R. Part 60, Appendix B and provide copies of all such tests.

31. Describe the specific air emissions testing or fuel quality monitoring that has been conducted on emissions and emission sources at the facility for any purpose, and the specific test methods used for all such testing and monitoring since 1980. Provide a copy of the results of each such emissions test, specify the date(s) on which the test(s) was performed, and describe the conditions (operational and otherwise relevant) under which each test was performed. If continuous monitoring is employed, provide a compilation of emissions data on a monthly average basis beginning in 1980 or when monitoring began, whichever is later.

32. Provide a copy of each annual and all other notices submitted to the U.S. Department of Energy since 1980 that describe refining capacity and/or production capacity.

33. Provide a copy of each annual and all other notices submitted to the Securities Exchange Commission since 1980 that describe refining capacity and/or production capacity.

34. Provide a copy of each refinery and corporate annual report and each refinery and corporate newsletter or any other publication of corporate or refinery news since 1980.

35. Provide a copy of each summary of production capacities submitted to the Oil & Gas Journal since 1980.

36. Provide a copy of each press release made describing physical changes at the refinery since 1980.

EPA requires [redacted] to submit the information requested above no later than sixty (60) days after receipt of this letter. EPA requires that [redacted] report any changes or revisions to the information supplied within seven (7) days after the change or revision is made. This requirement to provide EPA with changed or revised information shall remain in effect until EPA provides [redacted] with written notice of its termination.

Failure to provide the required information may result in the issuance of an Order requiring compliance with the requirements, or the initiation of a civil action pursuant to Section 113(b) of the Act, 42 U.S.C. § 7413(b). In addition, § 113(c)(2) of the Act provides that "any person who knowingly makes any false material statement, representation, or certification in, or omits material information from . . . any . . . document required pursuant to this Act . . . shall upon conviction be punished by a fine pursuant to Title 18 of the United States Code, or by imprisonment for not more than two years, or both." The information you provide may be used by EPA in administrative, civil and criminal proceedings.

You are entitled to assert a business confidentiality claim, covering all or part of the information which this letter requires, except that no such claim can be made with respect to

"emission data" as defined at 40 C.F.R. § 2.301(a)(2). Any such claim should be made in accordance with the procedures described at 40 C.F.R. § 2.203(b). EPA will provide the public with information subject to a claim of business confidentiality only in accordance with the procedures set forth at 40 C.F.R. Part 2, Subpart B. EPA may provide the public with any information not subject to such a claim without further notice. Also, the required submission of information pursuant to Section 114 is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. Section 3501, et seq.

Please submit your response to this request in duplicate to Attention:

Patrick Foley
Air Enforcement Section
U.S. Environmental Protection Agency
Mail Code: 3AT13
841 Chestnut Building
Philadelphia, PA 19107

When responding please reference plant identification [redacted]. Recognizing the complexity of this information request, Region III representatives are available to assist you in understanding the scope and technical details of this information request. Please do not hesitate to call or request a meeting with us if you desire clarification of any question. If you have questions regarding this Information Request or would like to request a meeting, please contact Patrick Foley at (215) 566-2098.

Sincerely,

Judith M. Katz, Acting Director
Air, Radiation, and Toxics Division

Enclosure

Appendix B

Chemical Plant In-depth Inspections: Information to be gained under Section 112 or Section 114 of the CAA

Facility: _____
Date: _____ 2001

FACLITY PROCESSES/OPERATIONS:

Please provide copies of the following within 30 days from inspection date

1. Process block flow diagrams (not the piping and instruments diagrams) for each process unit and a site plan for the facility. The diagrams/site plan should identify each air emission unit at the facility that emits an air pollutant and its corresponding air emission control equipment.

2. A description of the current processes for each process unit at the facility from introduction of raw material sequentially through to disposition of products, describing each air emission unit in relation to the process and the chemical or physical process occurring at each stage of the processing.

3. For each calendar year since 1980, each annual emission statement or report submitted to authorized state authorities.

4. A list of emission units with the descriptive name and unit ID number.

5. the date "construction" commenced (as defined in 40 CFR 52.21 and 60.2) for each of the processing units.

IDENTIFYING MAJOR PHYSICAL CHANGES:

6. A list of all capital appropriation requests (CARs), authorizations for expenditure (AFEs) or similar documents approved from January 1980 to present, including a description of the project (or name), date authorized and amount of money authorized. Provide date(s) projects were started and completed, as well as the reason(s) the project(s) were processed.

Additional useful information – Copies of annual summary capital budget tracking sheets, capital appropriation status reports or similar documents that identify, track and/or provide the status of each approved project, including the date authorized, the total amount authorized, actual expenditures to date, total projected expenditures, estimated completion date and date closed, for each fiscal year since 1980.

7. A list of all feasibility or engineering studies conducted by any internal or external person/ organization since January 1980 for:

a. the facility as a whole; and
b. individual process units or pieces of equipment at the facility.

This list should include any studies for determining the capacity(ies) of existing equipment, as well as any studies for proposed/planned/contemplated/equipment (either replacement for existing or additional), as well as configurations of equipment that are or were under consideration for purchase, construction, repair, replacement, improvement, upgrade, expansion, physical changes or changes in the method of operation regardless of whether they were implemented in whole, in part, or not at all.

8. A list of all permits to construct and permits to operate issued since 1980 that includes:

a. the date of permit issuance;
b. the equipment permitted;
c. whether the permit is a permit to construct or permit to operate;
d. whether the permit is a minor new source review (minor NSR), major non-attainment (NSR); or prevention of significant deterioration (PSD) permit; and
e. for each NSR/PSD permit, for which pollutants it was issued.

Additional useful information - A list of all permits applications since 1980 that includes:

a. the date submitted;
b. the permit that was issued in response to that application or the reason(s) why no permit was issued;
c. the equipment to be permitted (if different from the permit that was issued);
d. whether the application was for a permit to construct or permit to operate (if different from the permit that was issued);
e. whether the application was for a minor NSR, NSR or PSD permit (if different from the permit that was issued); and
f. for each NSR/PSD permit application, for which pollutants was the permit applied for (if different from the permit that was issued).

9. For each NSR/PSD permit, the BACT/LAER control technology required and its emission limit.

Chemical Plant Air Compliance Inspection

Facility: _____
Date: _____ 2001

Please provide copies of the following within 30 days from inspection date.

Maps of facility, including a map that shows location of facility in the state.

Up to date facility plot plan (including but not limited to locations of process units, control devices, flares, and Continuous Emissions Monitors).

Simplified Process or Block Flow Diagrams for processing subject to **NSPS, NESHAP, HON, MACT, and PSD.**

Operating hours of the facility. If all process units do not operate the same hours, show operating hours for each process unit (permitted operating hours as well as actual operating hours).

List of products that are produced for sale.

Title V Permit application including a matrix of air regulatory applicability. [Depending on process units to be inspected in the facility, inspector may just specify certain parts.]

Facility's 6 month monitoring reports required under 40 CFR 70.6(a)(3)(iii)

Annual Compliance Certifications (past two years)

If a Title V Permit has not been issued, the latest operating permits or consolidated permits including a matrix of air regulatory applicability for each. Show applicable process units, modifications, dates, pollutants, and emission limits.

Emission Inventory Summary Sheet indicating all emissions in tons per year for each air pollutant.

Most recent Performance Test (stack tests) summaries.

Records of all EPA Method 9 and EPA Method 22 readings (worksheets that include the readings, the times, observer position, sun position, etc.)

List of all ongoing enforcement actions including state actions. Include dates for each.

Initial Notifications for any physical or operational changes to processes during the past five years.

List of all air pollution control equipment and corresponding process units. Including but not limited to, heaters and boilers.

Provide dates of installation for each control
Provide efficiencies for each control
Provide permit emissions limits for each control

NSPS Subpart D, Da, Db – List of all steam generating units (60.40, 60.40a, 60.40b)

- include dates of construction, modification, reconstruction, installation
- Notifications of initial start-up
- heat inputs (MMBtu/Hr)
- fuels combusted and sulfur content(s)
- Most recent Performance Test Summary Reports

NSPS Subpart K, Ka, Kb – Complete listing of all VOL Storage Vessels indicating the applicable regulations (K, Ka, Kb, SIP). Include contents stored in each vessel, vapor pressures (and temperatures) of contents, date of construction/reconstruction/modification, type of construction, physical dimensions/volumes, and control devices in place, and respective efficiencies. (60.110, 60.110a, 60.110b)
Indicate which tanks are subject to NSPS, or NESHAP FF and the type of controls employed.
Storage Vessel (Ka, Kb) Seal Inspection Records. Include most recent inspection logsheets and steal gap inspection/measurement reports. (60.115b)
Provide tank numbers for those with slotted guidepoles and whether or not they have been retrofitted to eliminate emissions of VOC.

Flares – List of all Process/Emergency Flares, type, and respective service. Include flaring records from facility and State showing pollutants, quantities, date/time of flaring, duration, and allowable permit limits (if applicable) for the past two years. Include the causes or flaring events and what was done to correct flaring events in the short term. Provide any root cause analysis done to determine cause(s) of flaring.
Provide copies of summaries of most recent flare performance tests.
Provide documentation that all flare pilots are monitored.
Identify acid gas and sour water stripper overhead gas flares. Provide permit limits, if applicable.
Identify all Flare Gas Recovery Systems (FGRS).

CEMS – List all Continuous Emission Monitor Systems (CEMS). Identify related processes, associated regulations (NSPS Subpart J, Subpart Db, etc.) and pollutant streams that instruments are installed to monitor (Opacity, PM, CO, CO2, SO_2, NOx, etc.).
Provide copies of any alternative monitoring plans and approvals correspondence.
Preventative maintenance logsheets.
All Excess Emission Reports (EERs) for past five years (include parameters monitored, downtime, upsets, startups, pollutant emission, permitted limits).
Results of most recent certifications and relative accuracy test audits (RATA).
Calibration Gas Certifications (if shelf life has expired).
Descriptions of any recent changes to data acquisition and handling systems.

Excess emissions, releases –

Date(s), time(s), and durations of bypassing, flaring.
Cause(s) of bypassing (i.e., startup, shutdown, malfunction, upset, maintenance)
Estimate of the amounts of pollutants emitted during each flaring incident
A list and copies of all notices sent to EPA and/or state and local authorities.
Flare downtime for last five years.
Flare Performance test summaries for past five years.

NSPS Subpart VV – (40 CFR 60.480)
Master Equipment List (depending on size of facility, inspector may specify certain processes where leak detection will take place). (60.486)
Copy of leak monitoring schedule.
Most recent leak detection records with copies of all noted violations.
Most recent Quarterly and S/A leak detection reports. (60.487)

HON (Hazardous Organic NESHAP) –

HON F – Initial Performance Tests and initial compliance determinations as specified in HON G and H.

HON G - Initial Notification per 63.151(b)
- Implementation Plan per 63.152
- Latest periodic (S/A report per 63.152(c)(1)
- Notification of Compliance Status 63.152
- Latest S/A report of start-ups, shutdowns, and malfunction per 63.152(d)(1)
- Latest notification of inspections for storage vessels per 63.152(d)(2) in accordance with 63.122(h)(1) and (2)
- Records of monitoring of storage vessels per 63.119
- Records of monitoring for process vents per 63.114
- Records of monitoring of transfer operations per 63.127
- Records of monitoring of wastewater parameters per 63.111 and 63.132(d) and Table 11

HON H - Master Equipment list (depending on size of facility, inspector may specify certain processes) for components subject to HON.
- Leak monitoring schedule
- List of equipment in use in a batch process per 40 CFR 63.181(b)(9)(ii)
- Latest records of visual inspections of equipment per 63.181(c)
- Latest records of leaking equipment per 63.181(d)
- Latest records of operation and inspections of CVSCD in HON service per 63.181(g)(2) and (3)
- Initial Notification per 63.182(a)(1)
- Notification of Compliance Status per 63.182(a)(2)
- Latest Periodic (S/A) report per 63.182(d)(1)

NESHAP FF (benzene) – Simplified Process Flow Diagrams identifying NESHAP FF wastewater streams including all controls 61.356(b)
NESHAP FF process descriptions
Documentation of offsite waste shipment for treatment per 61.355(c) – last five years
Records of treatment processes per 61.356(e) – last five years
Records of closed vent systems and control devices per 61.356(f) – last five years
Records of visual inspections conducted per 61.356(g) – last five years
Records of tests for no detectable emissions per 61.356(h)
Initial reports filed IAW 40 CFR 61.357(a) and (d)(1)
NSESHAP FF Benzene Total Annual Benzene (TAB) Reports since 1993. 61.357(d)(2) – (5) and 61.357(d)(8)
Copies of all TAB calculations which took place after any changes took place with benzene waste streams which would have resulted in changes to the facility TAB quantity (i.e., waste streams removed from service).
Plot plan indicating locations of all benzene waste streams and TAB sample points.
List of all exempted waste streams per 40 CFR 61.357(d)(3) – describe where they originate and where they go.
List of all controlled waste streams per 40 CFR 61.347(d)(4) and respective control devices. Describe where they originate and where they go.
List of all streams going to sour water strippers. Indicate where they originate and where they go.
Verify that sour water stripers are receiving sour water only. (Sour water meets definition.)
Verify emissions from SWS go to Amine Unit/SRU.
Most recent S/A or Quarterly reports 61.357(d)(6), and (d)(7)
Most recent sampling analysis results and QA package if a contract lab is used.
Examples of control equipment monitoring data.
Copies of records of any benzene containing waste from remediation projects. (61.3429a)(3)
Copies of records of benzene waste collected by vacuum trucks.
Copies of records of benzene containing wastes from off-site. Permitted under subtitle C?
Copies of records of benzene containing wastes sent off-site (Kerley, Americhem).
Copies of records of spent caustic shipped off-site for regeneration.

NESHAP Subpart BB (benzene transfer operations) – list of control devices (flare, steam generating process heater, catalytic incinerator, thermal incinerator, carbon adsorption)
Most recent Performance test summary reports
Operating logs per 40 CFR 61.305 (c, e, f, g, h) for past two years
Vapor tightness documentation/records (tank trucks, railcars, marine vessels) examples depending on size of facility for past two years.

Vent systems inspection records (car-sealed valves, flow indicators) for the past two years.

Marine Tank Vessel Loading – Records and Reports per 40 CFR 63.566, 63.567(a) and 63.567(c) through (l)

Equipment Leaks – Records and Reports for equipment leaks per 40 CFR 60 Subpart VV or 40 CFR 63 Subpart H.

Section 112r, Accidental Releases

- Risk Management Plan (RMP) and five year updates
- Offsite consequence analysis parameters (40 CFR 68.22)
- Worst case release scenario analysis (68.25)
- Alternative release scenario analysis (68.28)
- Definition of offsite impacts – population (68.30)
- Definition of offsite impacts – environment (68.33)
- Safety information (68.48)
- Hazard review (68.50)
- Training (68.54)
- Compliance audits (68.58)
- Process hazard analysis (68.67)
- Training (68.71)
- Compliance audits (68.79)
- Employee participation (68.83)
- Hot work permits (68.85)
- Contractors (68.87)
- Emergency response programs (68.95)
- List of substances (68.130)
- Five year accident history (68.168)
- Certifications (68.185)

TEXAS ENVIRONMENTAL SUPERCONFERENCE

AIR POLLUTION ASPECTS OF NATIONAL ENERGY POLICY

By: PATRICIA FINN BRADDOCK

FULBRIGHT & JAWORSKI L.L.P.
600 Congress Ave., Suite 2400
Austin, Texas 78701-3248
Ph: 512-536-4547
Fax: 512-536-4598

AIR POLLUTION ASPECTS OF NATIONAL ENERGY POLICY

"The truth is that energy production and environmental protection are not competing priorities. They are dual aspects of a single purpose, to live well and wisely upon the Earth."[1]

On May 17, 2001, President George W. Bush issued the National Energy Policy Report[2] based on over one hundred recommendations from Vice-President Dick Cheney and members of the President's Cabinet (the Administration) for providing abundant, reliable, cleaner and more affordable energy while protecting the environment. This paper identifies the principle air pollution aspects of the policy, discusses the potential impact on two significant industrial sectors involved in energy production and outlines the ongoing assessments being conducted by the U.S. Environmental Protection Agency (EPA) in response to the policy.

I. Approach to Energy Equation

The report describes existing and future energy demands and supplies, potential problems in meeting the nation's energy needs, and potential measures for conservation, innovation, new technologies and production, as well as modernization of the infrastructure. The cornerstone of the plan for achieving energy and environmental goals is technology. The proposed measures fall within three general categories:

1. underwriting research and development into energy-saving technology for energy production and pollution control. The private sector will be required to provide more energy-efficient goods and services and the public is challenged to participate more extensively in conservation measures;

2. expanding and diversifying America's supply of all sources of energy: oil and gas, clean coal, solar, wind, biomass, hydro-power and other renewables, as well as nuclear power, to meet the nation's future energy needs; and

3. improving the seriously deteriorated infrastructure to insure a reliable system for transporting raw materials to energy generation facilities and delivering produced energy to the consumer.

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[1]Remarks made by President George W. Bush to the Capital City Partnership in St. Paul, Minnesota, May 17, 2001.

[2]A copy of the report may be accessed at www.whitehouse.gov/news/releases/2001/05/20010517-2.html

II. Impact on Electric Utility Generation

A. "America needs to generate more electricity"

If the demand for electricity grows as sharply as projected, the United States will need approximately 393,000 megawatts (MW) of new generating capacity by the year 2020 to meet demand. This means that between 1,300-1,900 new power plants would have to be built, which averages out to more than 60-90 plants a year, or more than one a week. Without acknowledging the obvious (this will never happen), the report proceeds to discuss options.

The primary sources of energy for power plants in the United States are coal (40-50%), nuclear energy (13%), natural gas (16%) and hydro-power (13%), with oil and renewable energy contributing the remainder. The environmental impacts begin with oil and gas exploration and production, continue through construction and operation of power plants, hydro-power dams, pipelines, and other energy-related projects that can potentially affect fish, wildlife and habitat and extend to the presence of carbon dioxide (CO_2), methane and other greenhouse gases in our atmosphere where they form a blanket around the earth trapping heat, raising temperatures on the ground and changing our climate. The long-term strategy is to reduce our reliance on fossil fuels, move to clean energy, and preserve our climate and our quality of life for future generations.

B. Coal-Fired Power Plants

Coal-fired power plants emit more significant amounts of sulfur dioxide (SO_2), nitrogen oxides (NOx) and toxics, such as mercury,[3] than other types of generators.[4] Sulfur dioxide and nitrogen oxide emissions from coal-fired power plants are regulated extensively through Title IV of the federal Clean Air Act, as amended in 1990 (the Acid Rain Program).[5] In addition, EPA is required to propose regulations to control mercury emissions, and any other air toxics that EPA deems necessary, from coal-fired power plants by December 15, 2003.

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[3]EPA contends that mercury concentrations in the air are usually low and of little concern. However, when mercury enters water, biological processes transform it into a toxic form that bio-accumulates in fish and animals that eat fish. People are exposed to mercury primarily from eating fish. See www.epa.gov/mercury.

[4]Other environmental issues associated with coal-fired power plants include discharges to streams and cooling water intake structures, the possible regulation of large volume wastes as hazardous waste, uncertainty over rules requiring air permits for certain changes at power plants and global and domestic efforts to reduce CO_2 emissions.

[5]42 United States Code (U.S.C.) §§7651-7651o; also see, 40 Code of Federal Regulations (C.F.R.) part 72.

Although the goal is to reduce reliance on coal-fired power plants, short-term measures must be implemented or we risk experiencing the plight of California where older, dirtier power plants have had to run longer than expected and diesel-fired emergency backup generators must be utilized to keep the lights on.

1. Environmental Constraints

Primarily as a result of deregulation in the 1990's, the construction of new coal-fired plants declined significantly. Since fewer new units were being added, plants were required to increase utilization of the existing units to satisfy increasing electricity demand. The increased reliance on existing units resulted in two significant changes in operational practice. First, plants were pressured to reduce both scheduled outages (planned plant shutdowns for maintenance and repair) and forced outages (unplanned plant shutdowns) to keep the existing units on-line. Second, during scheduled outages, plants began implementing extensive efforts to extend the life of the existing units. Unfortunately, these changes coincided with a change in regulatory interpretation by EPA which had a significant adverse impact on the industry.

In 1998, EPA significantly narrowed its historical interpretation of what constitutes "routine" maintenance and initiated enforcement action against owners and operators of several coal-fired plants, alleging that a number of facilities have been modified without new source review (NSR) permits. As a result, many practices that had been considered to be exempt under NSR were considered to be modifications. The modifications tended to fall within four categories:

1. Life Extension Projects - EPA has identified a number of projects undertaken by power plants to extend the useful life of the boilers to be beyond that contemplated when the facilities were built. For example, some power plants replaced major components (e.g., economizers, super heaters) after 30 years of use and in a manner that resulted in an emission increase from the unit. EPA's position is that these types of physical changes trigger NSR/PSD under existing law and regulations.

2. Expansion of capacity - EPA has identified a number of instances where the hourly capacity of the unit was increased, such as an increase in the amount of coal being fed into the boiler by 5 tons per hour, to constitute a modification.

3. Redesign of existing units - Between the 1950s and 1970s, the size of power plant units increased from 50 MW to over 1,000 MW units. Not all of these large units were immediately successful. EPA identified a number of instances where, in the first few years after installation, relatively new installations were redesigned to eliminate or mitigate original design defects, to constitute modifications.

4. Construction without a permit - EPA has identified instances where sources completed construction of entire coal-fired steam generating units without incorporating modern pollution controls. In these cases, the source argues that construction permits issued in 1974 exempt those sources from the 1977 regulations, notwithstanding the 18-month limitation in the regulations governing the life of construction permits.

The utility industry contends that they have been discouraged from making changes in the ordinary life of a unit that would significantly improve efficiency and capacity (such as the replacement of turbine blades with more efficient ones). In response, the report recommended that EPA, in conjunction with the U.S. Department of Energy (DOE) and other agencies, study the impact of NSR regulations on investment in new utility generation capacity, energy efficiency, and environmental protection. EPA issued a background paper discussing these issues on June 22, 2001 and expects to submit a final report to the President on August 17, 2001.

2. Emission Reduction Technologies

Under the Acid Rain program, which is directed primarily to reducing emissions from electric utilities, substantial reductions in SO_2 emissions have occurred since 1995 and will continue to occur over the next fifteen years. In addition, approximately 25% of all coal-fired power plants have either ordered or installed low NOx burners or selective catalytic reduction technology which reduces NOx.

New coal-fired power plants can generate more electricity at lower costs for several reasons, including improved operating efficiencies and the lower costs by incorporating the pollution controls into the original plant design. Approximately twelve new coal-fired power plants have been announced. Whether the units at coal-fired power plants are new or existing, however, we must develop more cost effective methods for reducing emissions from these facilities in the future.

Most conventional air emission control technologies installed on coal-fired electric generating boilers have been designed to remove a specific pollutant from the stack flue gas. The DOE is the designated lead agency for developing "clean coal technology" under the a Clean Coal Technology Program established in the federal Clean Air Act as amended in 1990[6] which works with utilities and scientists to develop more efficient electric generation systems using coal. The most promising new approach is integrated gasification combined-cycle technology (IGCC), which allows the use of materials such as coal pile waste and refinery waste to be used as fuels. IGCC power

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[6]42 U.S.C. §7651n. "Clean coal technology" means "any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, process steam, or industrial products, which is not in wide-spread use as of November 15, 1990."

plants can convert coal to a gaseous fuel from which most of impurities are removed prior to combustion, which greatly reduces emissions.

In addition, several companies are developing a single-control technology to reduce multiple air pollutants to levels equivalent to those achieved by conventional controls. A First Energy power plant in New Hampshire recently pilot-tested a process that uses electrically charged particles instead of catalysts to oxidize the air pollutants into products that are easily removed and can be converted to gypsum, fertilizer and concentrated acids.

C. Natural Gas Plants: "Most new power plants will be fueled by natural gas."

Natural gas electricity generation is projected to increase from approximately 16% in 1999 to 36% of total U.S. electricity generation in the year 2020. Rhode Island, New York, Delaware, Louisiana, California and Alaska already rely heavily on natural gas for electricity generation and Texas obtains over 1/3 of its electricity generation from natural gas.

In the 1990's, technological innovations in the performance of gas turbines and the emergence of non-utilities in the energy market contributed significantly to the growth in new natural gas-fired capacity. Rather than compete against base load units, non-utilities competed against the less efficient, older oil/gas steam units that provide electricity during peak loads. In addition to the fact that uncontrolled natural gas-fired facilities emit lower amounts of NOx, CO_2 and toxic air emissions than controlled coal-fired power plants, most natural gas plants have installed low NOx burners which further reduce NOx emissions. Because natural gas-fired units are less capital intensive projects than coal-fired plants and emit fewer air pollutants, it is projected that 90% of new generating capacity in the next fifteen years will be from natural gas-fired plants.

The principle barriers to expanded natural gas electric generation relate to production and pipeline constraints. On July 22, 2001, the Austin American Statesman began running a series of comprehensive articles about energy exploration and production in Texas, including natural gas pipeline safety issues and their environmental impacts. The reader is encouraged to read these articles for more detailed information about the condition of our nation's natural gas pipelines.

D. Nuclear Power: "America should expand a clean and unlimited source of energy- nuclear power."

There are 103 nuclear energy plants in the U.S. today. Nuclear energy accounts for 20% of all U.S. electric generating capacity and more than 40% of the electricity generating capacity in ten states in the Northeast, the South and the Mid-west. The long-term strategy is to renew the licenses for existing nuclear power plants for an additional 20 years, to utilize new technologies to increase the rated power levels of existing units and to authorize the construction and operation of new reactors at these plants.

The report noted that nuclear power plants are closely regulated by Nuclear Regulatory Commission (NRC) which provides oversight of operation and maintenance through comprehensive inspections and full-time resident inspectors at each plant. In addition, new design features, improvements in operating experience, and operator training have contributed to a greatly improved safety record. Because these plants emit almost no air contaminants, they present a considerable air quality improvement over coal-fired power plants.

Nuclear power plants present waste management challenges unique among energy-generating technologies. They generate spent fuel and other radioactive waste which must be isolated from ecosystems and human contract for long periods of time. The federal government has responsibility to address such high level waste and proposes to assess recent techniques. For example, the French and Japanese rely on reprocessing, an industrial approach that separated nuclear waste into usable fuel and highly concentrated waste. Also, a new technique, known as accelerator transmutation, could be used in combination with reprocessing to reduce quantity and toxicity of nuclear waste.

E. Oil

Oil fuels only 3% of total U.S. electric generating capacity. It is the dominant source of electricity generation in Hawaii and provides over 20% of electric power in Massachusetts, Connecticut, Delaware, Maine and Florida. The report indicates that the nation's reliance on this fuel will not change significantly.

F. Renewable Energy: "America must develop new and renewable sources of energy"

Clean energy can be generated from hydro-power facilities, wind farms and solar energy systems with negligible are emissions. Of all the renewable sources, hydro-power generation accounts for the largest percentage (approximately 7-13%) of overall U.S. electric generating capacity. The most significant constant constraint on expansion of U.S. hydro-power generation is physical. Most of the best locations for hydro-power generation have already been developed. Also, the amount of hydro-power generation depends upon the quantity of available water.

The report advocates that renewable energy should play an important role in supplementing other sources of electricity generation, however, these sources are not expected to constitute a substantive alternative to coal, natural gas and nuclear energy.

III. Conservation

The report recommends that the nation dedicate resources to developing and promoting conservation and increased energy efficiency as part of the short-term and long-term energy strategy. The public is encouraged to incorporate measures, such as replacing appliances with more efficient models, turning off unneeded lights, driving less, car-pooling more, buying more fuel-efficient vehicles and working towards more practical mass transit for our cities. Businesses are encouraged

to making small energy-use adjustments on a broad-scale, such as setting indoor thermostats 2-4° warmer in existing buildings and incorporating energy efficiency into new building design, such as increasing insulation, installing solar panels on roof tops, and increasing the reflective surface of buildings keeping them cooler.[7] Individuals, businesses and industry are encouraged to participate in EPA's voluntary conservation and energy efficiently programs.[8]

IV. The Petroleum Refining Industry

A. "We're not just short of oil, we're short of the refineries that turn oil into fuel."

U.S. demand for refined petroleum products, such as gasoline and heating oil, currently exceeds our domestic capacity to produce them. The refinery industry is now running at nearly 100% of capacity during the peak gasoline consumption season. No new refineries have been built in this country in over 20 years and it is unlikely that new refineries will be constructed in the future. Although the number of existing refineries fell from 324 in 1981 to 149 in 2000, several large, efficient Gulf Coast refineries have been able to take advantage of technological economics of scale to expand capacity to make-up the shortfall. Any future added capacity will likely come from expansion at existing refineries.

B. Constraints

The petroleum refining industry faces substantial challenges in meeting the nation's fuel needs. First, like the utility industry, the petroleum industry contends that it has been discouraged from making changes in the ordinary life of a unit that would significantly improve efficiency and capacity at existing refineries. The complex, time-consuming permitting requirements limit the ability of refiners to expand capacity or build new refineries. Further complicating the matter, the majority of the nation's refineries are located in the Houston/Galveston area, which is designated a severe non-attainment area for ozone. This means that before a refinery may construct a new unit or modify an existing unit, the refinery must not only obtain a non-attainment NSR permit but also offset its emission increase by securing emission reductions from other sources in the area. The cost and the difficulty in obtaining sufficient emission reductions serves to further discourage expansion.

Second, the federal Clean Air Act requires state implementation plans under which individual metropolitan areas can create their own fuels to meet clean air requirements. Currently, there are 15 different types of gasoline in use because of these varying requirements. This balkanization of fuels

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[7]Supporting this concept, on July 16, 2001, U.S. Representative Jerry Weller (R-Ill) introduced the "Save America's Valuable Energy Resources Act," H.R. 2147, that would provide a $2,000 tax credit for homes built to exceed standard energy code requirements by 30%, and up to $2,000 tax credit for upgrades to existing homes.

[8]See information about EPA's Energy Star Program.

greatly reduces refinery flexibility, which means that relatively minor disruptions and regular downtown for maintenance can have a significant impact on the flow of supply.

Finally, in the past four years, EPA has initiated enforcement action against the owners and operators of several refineries alleging that modifications were made without undergoing NSR permitting. To date, EPA has reached four company-wide settlements with Koch; BP-Amoco; Motiva/Equilon/Shell; and Marathon Ashland Petroleum. These settlements involve 27 refineries and approximately 29% of the domestic refining capacity. The estimated cost of implementing the control equipment aspects of the consent decrees is $1.3 billion.

In response, the report recommended that EPA and the DOE work together to ensure that the nation has adequate refining capacity by streamlining the permit process where possible, adopting comprehensive regulations, and considering the rules' cumulative impacts and benefits, without compromising environmental protection. EPA and the DOE are also evaluating the manner in which "boutique fuels" are transported and used. These issues are included in the EPA background paper released on June 22, 2001.

V. Energy Infrastructure

The energy infrastructure is comprised of many components, such as the physical network of pipes for oil and natural gas, electricity transmission lines and other means for transporting energy to consumers. It includes facilities that turn raw natural resources into useful energy products and the railroad network, truck lines, and marine vessels that transport those raw natural resources and products.

A. Transmission Grid

Transmission allows the sale of electricity between regions and can be a substitute for generation, allowing that region to import power that otherwise would have to be generated in that region. The U.S. does not have a national transmission grid. Instead, there are four integrated transmission grids serving North America: the Western Interconnection, the Eastern Interconnection, the Electric Reliability Council of Texas, and the Province of Quebec. The Administration cited three factors which have impaired the transmission of electric power from one region of the country to another:

1. the lack of sufficient investment in transmission lines;

2. the siting process, which is the responsibility of state governments, not the federal government, under existing law. This stands in stark contrast to siting of other interstate facilities, such as natural gas pipelines, oil pipelines, railroads and interstate highways; and

3. limited access to federal lands.

The long-term strategy is to expand and improve the nation's power grid.

B. Pipelines

The report states that the nation has insufficient domestic pipeline capacity which has caused peak-load problems in moving oil and petroleum products such as gasoline from one region of the country to another. Pipelines have been shutdown for various times due to regional electricity shortages. More alarming, much of the existing oil pipeline infrastructure is old, requiring regular safety and environmental reviews to ensure its reliability. Virtually all natural gas in the U.S. is moved via pipeline and the network is in desperate need of modernization to ensure that the supply is delivered to the point of demand. The writer again refers the reader to the Austin American Statesman articles for a more detailed description of the condition of the nation's pipelines.

VI. EPA Directives in the President's National Energy Policy Report

In response to the National Energy Policy Report, EPA announced the following directives:

1. Multi-pollutant legislation - EPA will propose legislation and work with Congress to establish mandatory reduction targets for sulfur, nitrogen oxide and mercury. The legislation should include a reasonable phase-in period, regulatory certainty for utilities, and market-based incentives.

2. Energy Star - The Energy Star program will be expanded to include schools, retail buildings, health care facilities, and homes.

3. Combined Heat and Power (CHP) - EPA will work with local and state governments to promote the use of well-designed CHP and other clean power generation at Brownfield sites and to clarify any liability issues that may be raised. In addition, guidance will be drafted to shorten the time needed to obtain CHP permits and provide certainty to industry through consistent implementation. CHP should be promoted through flexibility in environmental permitting.

4. Energy Efficiency - EPA will develop and implement a strategy to increase public awareness of the sizable savings that energy efficiency offers to homeowners.

5. Renewable Energy Partnership Program - EPA will develop a new renewable energy partnership program to help companies and consumers more easily buy renewable energy, and companies receive recognition for their contributions to the environment.

6. New Source Review (NSR) - EPA is conducting a 90-day study, in consultation with the DOE and other agencies, of the impact of NSR regulations on investment in new utility and refinery generation capacity, energy efficiency, and environmental protection. A final report is expected to be submitted to the President on August 17, 2001.

7. Streamlining of Refinery Permitting - EPA and DOE will work together to ensure that America has adequate refining capacity by streamlining the permitting process where possible, adopting comprehensive regulations, and considering the rules' cumulative impacts and benefits, without compromising environmental protection.

8. Boutique Fuels - EPA will study opportunities, in consultation with DOE and other agencies, to maintain or improve the environmental benefits of state and local "boutique" fuels program while exploring ways to increase the flexibility of the fuels distribution infrastructure, improve fungibility, and provide added gasoline market liquidity.

9. Truck Idling - EPA and the Department of Transportation (DOT) will work with the trucking industry to establish a program to reduce emissions and fuel consumption from long-haul trucks at truck stops by implementing alternatives to idling, such as electrification and auxiliary power units at truck stops along interstate highways.

10. Nuclear Energy - To support nuclear energy as a major component of our national energy policy, the best science should be used to provide a deep geologic repository for nuclear waste and EPA and DOE will work together to assess the potential of nuclear energy to improve air quality.

Patricia Finn Braddock is a partner in the Energy and Environmental Department in Fulbright & Jaworski's Austin office where she specializes in environmental law. Prior to joining the Firm, Ms. Braddock worked for Texas' environmental regulatory agencies for almost fifteen years. From 1974 to 1978, she was a Staff Attorney and Assistant Director of Enforcement at the Texas Water Quality Board and later was an Assistant General Counsel of the Texas Department of Water Resources, where she worked extensively on water quality and hazardous waste permitting and enforcement mattes. From 1978 through November of 1987, Mrs. Braddock was a Senior Staff Attorney for the Texas Air Control Board, where she was responsible for reviewing and approving all work in the Enforcement Counsel Section of the Legal Division of the Texas Air Control Board. Ms. Braddock obtained her Bachelor of Arts in Political Science from The American University, Washington, D.C. in 1971. Ms. Braddock obtained her Doctor of Jurisprudence from St. Mary's School of Law in San Antonio, Texas in 1974.

Ms. Braddock's practice focuses on permitting and enforcement matters before agencies such as the Environmental Protection Agency, the Department of Justices, the Texas Natural Resource Conservation Commission, and the Texas Railroad Commission, and on counseling clients on air quality, wastewater and solid waste matters.

Water and Wastewater Issues Related to Combined Cycle Power Plants

Sally Jo Hahn, Attorney
816 Congress Ave., Suite 1100
Austin, Texas 78701
512.480.2262

Water and Wastewater Issues Related to Combined Cycle Power Plants

This paper is meant to illustrate some of the water and wastewater issues that commonly arise when building combined cycle power plants in Texas. Most of these plants were designed so that they could be used anywhere in the United States. The same equipment and design allow for economy of scale in building these plants.

There are, however, some significant issues related to water usage and availability, particularly if no surface water is available.

This paper is designed to explain how a combined cycle plant works, the general water issues related to such plants, and to provide a detailed case study of one such plant in Seguin, Texas, which is currently under construction.

Combined Cycle Plants in General

Combined cycle plants use natural gas to create electricity with gas turbines. A natural gas-powered turbine is similar to a jet engine. The turbines themselves produce electricity. The turbines also produce exhaust gases at very high temperatures (e.g., 900 to 1000 degrees Fahrenheit). Hot gases from the gas turbines are funneled to a heat recovery steam generator (HRSG); this is a multiboiler system that is used to produce steam. The high-pressure steam is then funneled to a steam turbine, which creates more electricity. The exhaust steam from the steam turbine is then routed to a cooling tower, which is used to cool and condense the steam. The steam is then recycled back into the HRSG.[1] Please refer to Appendix A for an illustration of this process.

Water Requirements

Power plants that produce between 500 to 1000 megawatts per day will be used for the general example in this discussion. The average quantity of water used per day for each such plant for evaporative cooling is between 5 to 10 million gallons per day (MGD). At peak capacity, therefore, a plant that produces 1000 megawatts of power per day uses about 10 MGD of water for evaporative cooling. The average rule of thumb is that it takes approximately eight gallons of water to produce one kilowatt of electricity from a combined cycle plant. Just for comparison, a coal-fired plant requires 10 to 11 gallons of water to produce one kilowatt of electricity. [2]

A megawatt is one million watts of electricity. A megawatt measures the rate of use of electricity. It takes one megawatt to light 10,000 100-watt light bulbs.[3]

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[1] Courtesy TXU.com; Lower Colorado River Authority; Calpine.
[2] Greg Behrens, Wastewater engineer, URS Corporation.
[3] Lower Colorado River Authority, *Choosing the Power that Makes a Difference,* January 1999.

A megawatt-hour measures the total use of electricity. It takes one megawatt-hour of electricity to light 10,000 100-watt light bulbs for one hour.[4]

Combined cycle plants operate at approximately 3000 degrees Fahrenheit. Approximately 80 per cent of the water used for cooling evaporates in the cooling system. Increased heat in the atmosphere (e.g., hot summer days) increases the demand for electricity. This increased demand, in turn, increases the load on the power plant, thus increasing the plant's need for water.[5]

Water Sources

There are several different sources of water that might be used for cooling a combined cycle plant. Those discussed here are municipal water supply, surface water, underground water, grey water, and reservoirs.

Municipal Water Supply

In an area without sufficient surface water, the municipal water supply system is usually considered as a source of cooling water. The average system capacity for a municipal water supply is approximately 5 MGD pumping capacity; this would be for a city with a population of approximately 18,000-20,000 residents.

A combined cycle plant will usually use about 50 per cent of the capacity of a municipal water supply system. In the summer months, an average municipal water supply system might pump about nine MGD. The important issue here is that peak demands for water and electricity occur at the same time during the hot summer months. Therefore, the municipality frequently must build more infrastructure to meet the demands on the plant. In addition, therefore, someone has to come up with the cash to build the increased infrastructure.

Surface Water

The volume of surface water required to cool our hypothetical combined cycle plant would be approximately 10,000 acre-feet/year. This volume is roughly equivalent to about nine MGD (1 acre-foot=325,000 gallons). River flows, on the other hand, are given in cubic feet per second (cfs). Some river flows may be low, and there may not be enough water in the river to handle the demands of a power plant. In order to get an idea of what an average river flow might be, 100 cfs is about the same as 6 MGD (this is about the same as the flow in the Guadalupe River when you scrape bottom while tubing).

Underground Water (Water Wells)

The first issue regarding use of groundwater is whether there will be sufficient water in the wells to meet the demands of the plant. Then, of course, there are the inevitable water rights and water districts issues. For most plants, this is not the best option.

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[4] Id.

[5] Greg Behrens, URS Corporation.

Grey Water (Reuse Water)

Operators of municipal wastewater treatment plants are nearly always ecstatic when they can sell their effluent to someone else. They like earning revenue for what is otherwise considered a byproduct of the sewage system that has no monetary value. And they can, and do, sell this water very cheaply. Generally speaking, grey water (or reuse water) is sold for about 30 cents for 1,000 gallons. Potable water, on the other hand, generally costs about $2.50 per 1,000 gallons.[6] Some water supply companies will, however, lower their prices to about $1.50 per 1,000 gallons for large users. The savings to a power plant on reuse water, therefore, can be substantial, particularly over the long haul.

The down side of using municipal water – whether it's grey (reuse) water or potable water – is that you have to build pipes and pumps to get the water from one place to the other. The pipe cost can be very substantial. For instance, if you have to lay about six or seven miles of pipe, it could cost at least $2 million to put in the pipe. However, if you compare this to the cost of building a power plant (e.g., minimum $200-$300 million), the cost savings become apparent with respect to operating the plant.

There may be other environmental issues related to laying the pipe – especially for the reuse water. Endangered species can always be an issue, and breaks in the pipeline could be a concern.

Reservoirs or Lakes

In some locations, a power producer may be able to build their own reservoir or lake. One such example is the new Lost Pines plant on Lake Bastrop. GenTex Power Corporation, an LCRA affiliate, and Calpine Corporation worked together to develop the Lost Pines plant in Bastrop county, and the two companies continue to share ownership. The plant's output is 500 megawatts. This plant uses cold water from Lake Bastrop instead of evaporative cooling; the warm water is released back into the lake.

The treatment required for using such water is typically minimal. A clarifier is used to remove gross solids from the water. The largest flow is used for the cooling towers; the smaller flow is used to create steam. And it's not necessary to have freshwater – seawater can be used for such cooling.

New Electric Generating Plants in Texas

Just to provide a frame of reference for the number of new plants anticipated in Texas, I have provided a graphic from the Public Utility Commission of Texas in Appendix B.

[6] Just for comparison, I checked the City of Austin residential water rates for June 2001. For potable water, the costs were 1.25/1,000 gallons for the first 2,000; 2.00/1,000 gallons for the next 10,000 gallons; and 4.90/1,000 gallons for any amount over 12,000 gallons.

Wastewater

Pretreatment and discharge to POTW

The wastewater generated by a combined cycle plant is basically salty water. No salt is added during the process, but the salt in the intake water becomes more concentrated on discharge due to evaporation. Generally, the municipal water supplier (and wastewater treatment plants) can accept as much discharge water as they supply to the combined cycle plant. However, this may become a problem during heavy rains, due to water collection in sewers.

Municipal wastewater treatment plants are primarily designed to break down organics (carbon-reducers). Some plants can't handle large quantities of salty water discharged by combined cycle power plants. However, some operators of certain wastewater treatment plants have indicated that they can adapt their microbes to work in salt water, and this doesn't seem to be a problem to them.

Discharge to River

Occasionally, it is possible to discharge directly from the combined cycle plant directly to a surface water body. The plant would first have to check pH and metal contents (and get a wastewater discharge permit for the outfall) before discharging to the river.

The discharge point in the river (or other water body) is critical. If the plant is the first discharger (i.e., upstream) to a low salinity creek, then it may be able to get a discharge permit for such an outfall. If the plant is the second discharger to such a creek, then it's not likely that the plant could get a discharge permit for such an outfall. If, however, the plant can discharge to a large river with big flows, there is a much better chance that an outfall will be permitted to discharge to the river.

Irrigation

Wastewater from a combined cycle plant can sometimes be used for irrigation. The calculations for using wastewater for irrigation are weather-related and salt-related; these numbers determine the application rate for irrigation. Using a rough calculation for an area in central Texas might result in a rate of about one gallon per minute (gpm) of wastewater per acre. One MGD is equal to approximately 700 gpm. Therefore, the plant used in our example would need at least a couple of square miles of land available for irrigation.

Underground Injection Wells

Some thought has been given by various power producers to disposing of wastewater in underground injection wells. This may be feasible in some parts of Texas, particularly in North Texas and in some of the coastal areas. However, this solution is not viable in Central Texas: the siting requirements for such wells cannot be met because they would

be located over drinking water aquifers, and the aquifers themselves are too deep. In addition, public participation issues tend to become a problem whenever this alternative is proposed.

A Case Study: Rio Nogales Power Plant in Seguin, Texas

The Rio Nogales Power Plant is currently under construction in Seguin, Texas. This is a project of Constellation Power. Constellation Power is a 100% affiliate of Baltimore Gas & Electric.

Rio Nogales will be a natural gas fired combined cycle power plant able to produce up to 800 megawatts of electricity per day.[7] That's enough electricity to supply about 250,000 homes per day. It is located on a 65-acre tract in the Guadalupe Street Industrial Park at the corner of Guadalupe and Millandro Streets in Seguin.[8] Construction began in July 2000. Operations are expected to begin in 2002. Constellation Power plans to sell its electricity to the Lower Colorado River Authority and other similar utility customers.[9] The cost of this project is projected to be at least $340 million.

Early in the development process, it was determined that neither surface water or ground water would be available in sufficient quantities to supply water for evaporative cooling to the plant. Neither would the plant be able to discharge to the Guadalupe River due to high salinity and low river flows. Therefore, some creative solutions were required in order to provide the plant with adequate water and wastewater service.

The plant requires 4-6 MGD of water for evaporative cooling. They will have approximately 1 MGD per day of blowoff wastewater discharge (which is primarily salty water).

The ultimate solution to this problem was to provide the plant with 4 MGD per day of potable water from the Seguin Water Treatment Plant. The Walnut Branch Wastewater Treatment Plant (owned by the city of Seguin) would provide 2 MGD per day of reuse water to the plant The plant is limited to this amount of reuse water by its discharge permit to the Geronimo Creek Wastewater Treatment Plant; a higher limit would exceed the wastewater plant's permit limits for salinity. The Geronimo Creek plant discharges to the Guadalupe River. The Geronimo Creek plant does not , therefore, treat dissolved salts, and does not expect to have a buildup of salty water. They do not expect to have high concentrations of chlorides in their effluent.

Pipelines must be constructed between the Rio Nogales Plant and the water treatment and wastewater treatment plants in order to make this solution feasible.

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[7] Please refer to Appendix C for an artist's rendering of the completed project.
[8] An aerial view of the plant's location is attached as Appendix D.
[9] An illustration of LCRA's grid system is located in Appendix E.

The details concerning this solution are outlined below. The infrastructure for both the water treatment plant and the Walnut Branch Wastewater Treatment Plant required improvements in order to provide sufficient water to the Rio Nogales Plant. The costs for these improvements are being shared by the City of Seguin, the Seguin Economic Development Corporation, and Constellation Power. (Skip to the end of this paper for details on those issues.)

By taking reuse water from the city of Seguin, the Rio Nogales Plant will save a substantial amount of money on operations costs over the long haul. The approximate costs for reuse water from the city will be 35 cents per 1,000 gallons. The approximate cost of potable water from the city will be $1.50 per 1,000 gallons. Rio Nogales, therefore, saves a lot of money both on the reuse water and on the cost of the potable water. The reuse water could save the Rio Nogales Plant over $800,000 annually in operating costs, which will help to defray the costs involved in getting the water to the power plant.

The city of Seguin, on the other hand, is able to recover some of its water treatment costs through sale of the reuse water to the Rio Nogales Plant. The city could generate over $200,000 annually through sale of its reuse water to the Rio Nogales Plant.

Infrastructure Improvements Required

Potable Water Use[10]

The City of Seguin has one water treatment plant, which is referred to as the Seguin Municipal Water Treatment Plant. The plant's current capacity and limitations are as follows:

- The plant can produce up to 7 –71/2 MGD of potable water per day.
- The plant produces 5 MGD per day on a daily case average annually.
- Peak water usage is typically between 5 PM and 9 PM, Monday through Friday.
- Approximately 1-1.2 MGD are required to supply the Tyson's plant in Seguin.
  - A separate pressure system currently exists in order to supply Tyson's with adequate water. Tyson's does not operate on weekends, and their usage is typically higher in the morning than later in the day.
  - Tyson's is currently the largest industrial water user served by the plant.
  - Tyson's will be the second largest industrial water user after the Rio Nogales plant begins operations.

Water treatment plant[11]

- A 2 million gallon storage tank is being constructed at the plant to hold potable water for the Rio Nogales Plant.
- Pipeline from potable water plant to Rio Nogales Plant

[10] City of Seguin, John Toeller, Doug Faseler, and John Schraub.
[11] Id.

- 6600 linear feet of 18" pipe – adding pump stations and a 2 million gallon storage tank
- Guadalupe River is currently the only source of water to the treatment plant.
- Adding groundwater system at cost of $50 million. Costs will be split between the cities of Seguin and Schertz.
  - Six wells wil lbe installed in this well field.
    - This well field is being developed over the Carizzo aquifer in Gonzales County.
    - The well field will be located near Highway 80 and FM 1117 on 8000 acres of land.
  - The water will be shared 50/50 between the cities of Seguin and Schertz.
  - Two 2 million gallon storage tanks are being constructed for this project.
    - The water will be treated to remove iron and manganese.
    - One tank will be located in Gonzales county; the other tank will be located in between the well field and Schertz.
- Schertz has the ability to backfeed the system from Schertz in case of low groundwater flows. This backfeed would come from the Edwards aquifer.
- The primary concern for the water treatment plant is that it will be able to make all of the instrumentation and systems to work together once they have been constructed.

Walnut Branch Wastewater Treatment Plant[12]

- Pipeline required for reuse water: approximately 19,000 linear feet of 16" pipe from the Walnut Branch Wastewater Treatment Plant to the Rio Nogales Plant.
  - These pipes will be purple, which indicate reuse water.
  - Part of this line will also furnish reuse water to Tyson's.
- Must add a reuse pump station to pump reuse water to Rio Nogales Plant.
  - This is the biggest improvement at this plant.
    - It will be located in one corner of the chlorine contact basin.
    - Will have three variable-speed operated pumps.
      - Pumps will be based on level-control sensors at the Rio Nogales Plant.
      - The sensors at the Rio Nogales Plant will send a radio signal to both the Seguin Municipal Water Treatment Plant and the Walnut Branch Wastewater Treatment Plant to increase or decrease the amount of water needed by the Rio Nogales Plant.
      - This system will operate 24/7/365.
      - Variable speed pumps will be used because wastewater flows are not consistent: peaks and valleys in usage are created by time of day and operations at the Rio Nogales plant.
- Must change the location of the outfall so that, if the Rio Nogales Plant cannot use all of the reuse water allocated to it, Walnut Branch may then discharge to the Guadalupe River (and have ample capacity to do so).

[12] City of Seguin, John Toeller and Doug Faseler.

Geronimo Creek Wastewater Treatment Plant[13]

- Pipeline required from the Rio Nogales Plant to the Geronimo Creek WWTP for used evaporative cooling water (blowoff) – about 1 MGD.

Special requirements at RNP

- Must build 350,000 gallon tank for storage of reuse water
  - This allows the plant to cope with peaks from Walnut Branch WWTP
- Constructed building and tanks for polishing reuse water to standard for cooling towers (not required for discharge, but for cooling tower evaporation)
- 500,000 gallon tank for water makeup (demineralized water) for boiler feed
- 1,000,000 gallon tank – combination of potable water and firewater storage

Agreement between Seguin Economic Development Corporation, City of Seguin, and Rio Nogales Plant (i.e., Who Pays for What?)

The Seguin Economic Development Corporation ("SEDC"), the City of Seguin, and the Rio Nogales Power Project ("RNPP") entered into a performance agreement with respect to, among other things, the infrastructure improvements that were required to supply water to the power plant.[14]

Some of the more pertinent (and interesting) highlights of that agreement are as follows:

- The City of Seguin will provide $2.9 million for related capital improvement projects.
- RNPP will provide $2.9 million cumulatively to reimburse the City for potable and reuse water system improvements, wastewater disposal system improvements, and road improvements.
- The target date for operation of the Rio Nogales Plant is December 31, 2002.
- RNPP will directly or indirectly employ at least 20 full-time employees starting within one year of operation.
- RNPP will maintain an annual operational payroll of at least $1,000,000 within one year of operation.
- RNPP projects a minimum assessed taxable valuation of $285,000,000 on the first date of assessment following commencement of operations.
- RNPP will establish a green belt, or buffer zone, in accordance with the specific use permit issued by the city. (This was previously agreed to as a method of screening off the view of the plant from the surrounding neighborhoods.)
- RNPP and SEDC will assist the City with respect to studying stream enhancement through use of RNPP's effluent in order to increase stream flow.
- RNPP must provide financial assurance in the amount of $2 million.
- Potable water improvements:

[13] Id. and Sara Burgin, Brown McCaroll Oaks Hartline.

[14] A Performance Agreement relating to the Rio Nogales Power Project in Seguin, Guadalupe County, Texas. Source: Seguin Economic Development Corporation and John Vay, Kelly Hart & Hallman.

- City contributes the lesser of 12% or $400,000.
- RNPP contributes the lesser of 50% or $1,650,000
- SEDC contributes the lesser of 38% or $1,250,000.

- Reuse water improvements:
  - RNPP contributes the lesser of 50% or $750,000.
  - SEDC contributes the lesser of 50% or $750,000.
- Wastewater collection system improvements:
  - City contributes the lesser of 100% or $2.1 million.
- Road improvements:
  - City contributes the lesser of 43% or $300,000.
  - RNPP contributes the lesser of 57% or 400,000.

If you want to know more about this project:

This is an ongoing project, and there will be plenty of changes as it progresses. You can check the progress and get more information at the following websites:

- www.powersrc.com/plants/rioNogales/index.asp
- www.ci.seguin.tx.us
- www.seguinedc.com

Sources of Information

Ann Barker, TRC Solutions, Inc.

Greg Behrens, URS Corporation

Irvin Bilsky, URS Corporation

Sara Burgin, Brown McCarroll Oaks Hartline

The City of Seguin, Texas, especially Doug Faseler, John Toeller, and John Schraub

Constellation Power Company, especially Dan King and Lynn Landry

John Seidler, Spectrum Energy

John Vay, Kelly, Hart & Hallman

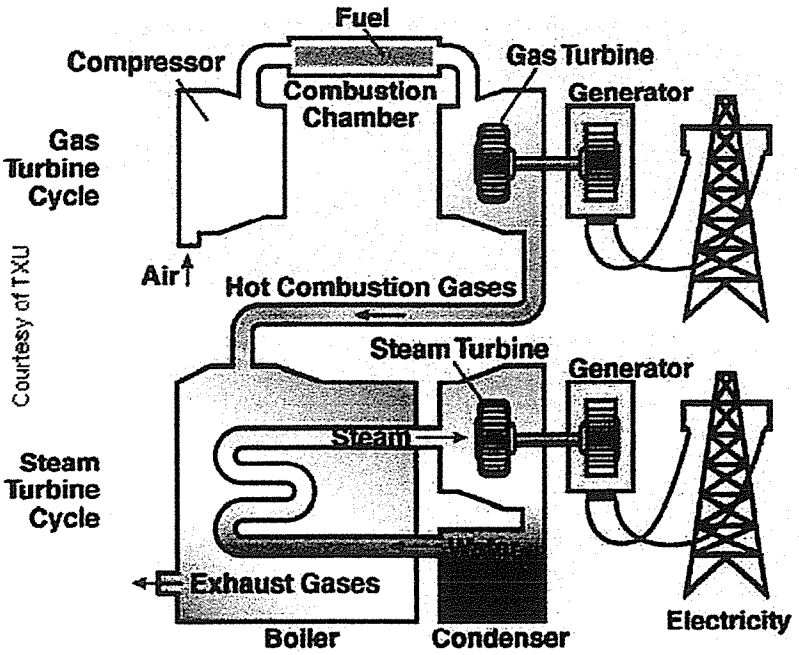
Lower Colorado River Authority

Public Utility Commission of Texas

TXU

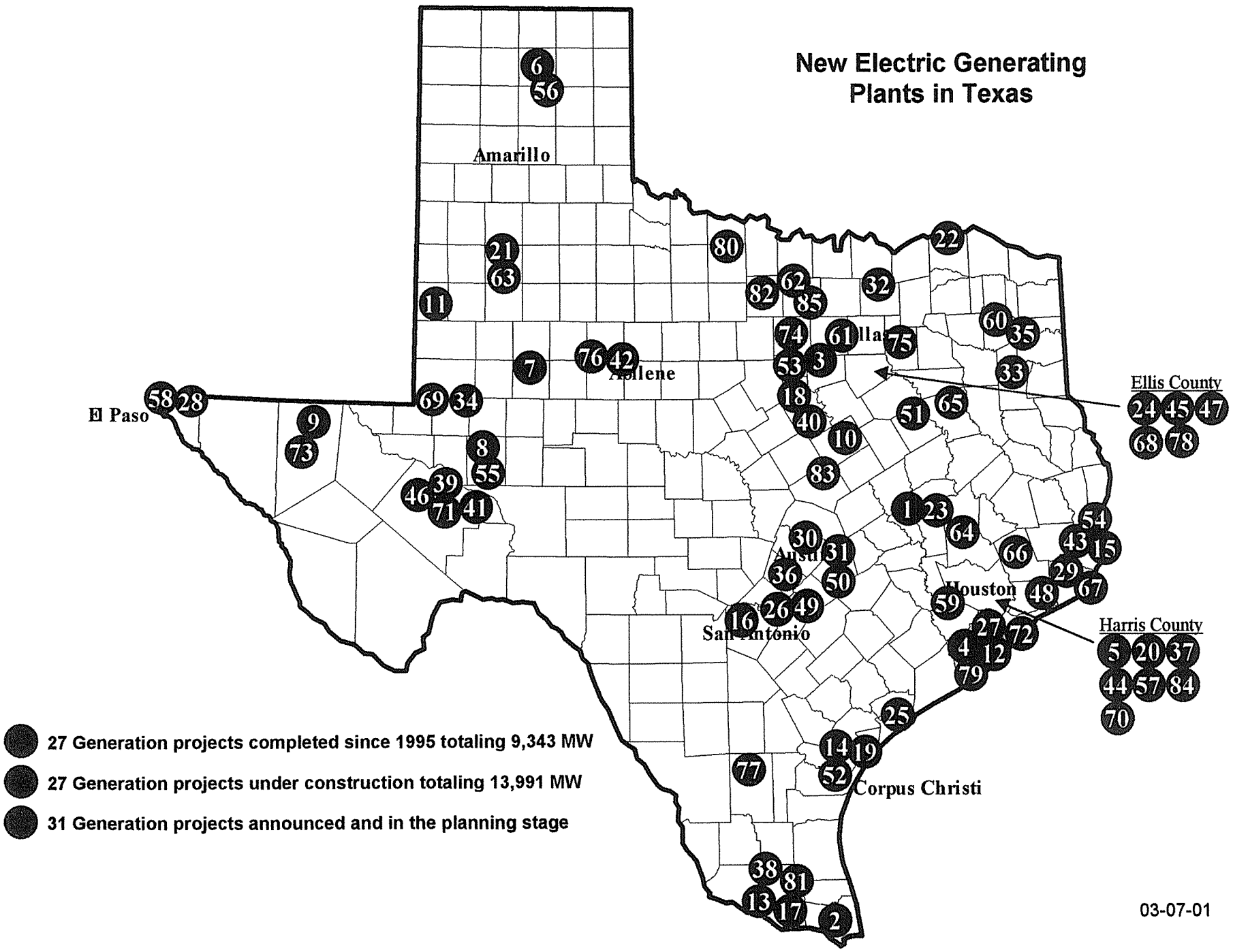
APPENDIX A

NATURAL GAS FIRED COMBINED CYCLE PLANT


Fuel
Compressor
Gas Turbine
Combustion Chamber
Generator
Gas Turbine Cycle
Air
Hot Combustion Gases
Courtesy of TXU
Steam Turbine
Generator
Steam
Steam Turbine Cycle
Exhaust Gases
Boiler
Condenser
Electricity

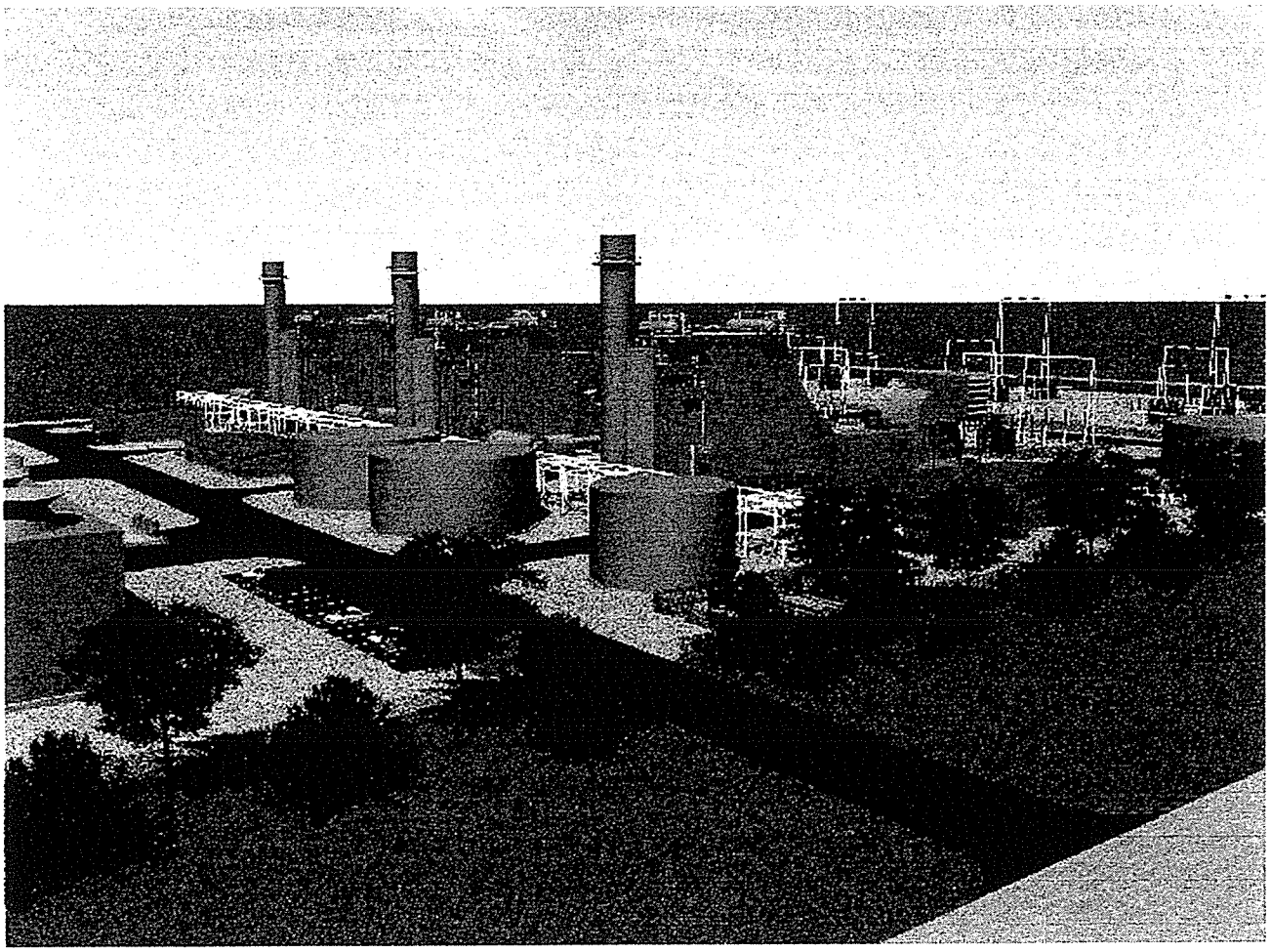
APPENDIX B

NEW ELECTRIC GENERATING PLANTS IN TEXAS


New Electric Generating Plants in Texas
Amarillo
Abilene
El Paso
San Antonio
Houston
Corpus Christi
Ellis County
Harris County
27 Generation projects completed since 1995 totaling 9,343 MW
27 Generation projects under construction totaling 13,991 MW
31 Generation projects announced and in the planning stage
03-07-01

APPENDIX C

ARTIST'S RENDERING OF RIO NOGALES PLANT



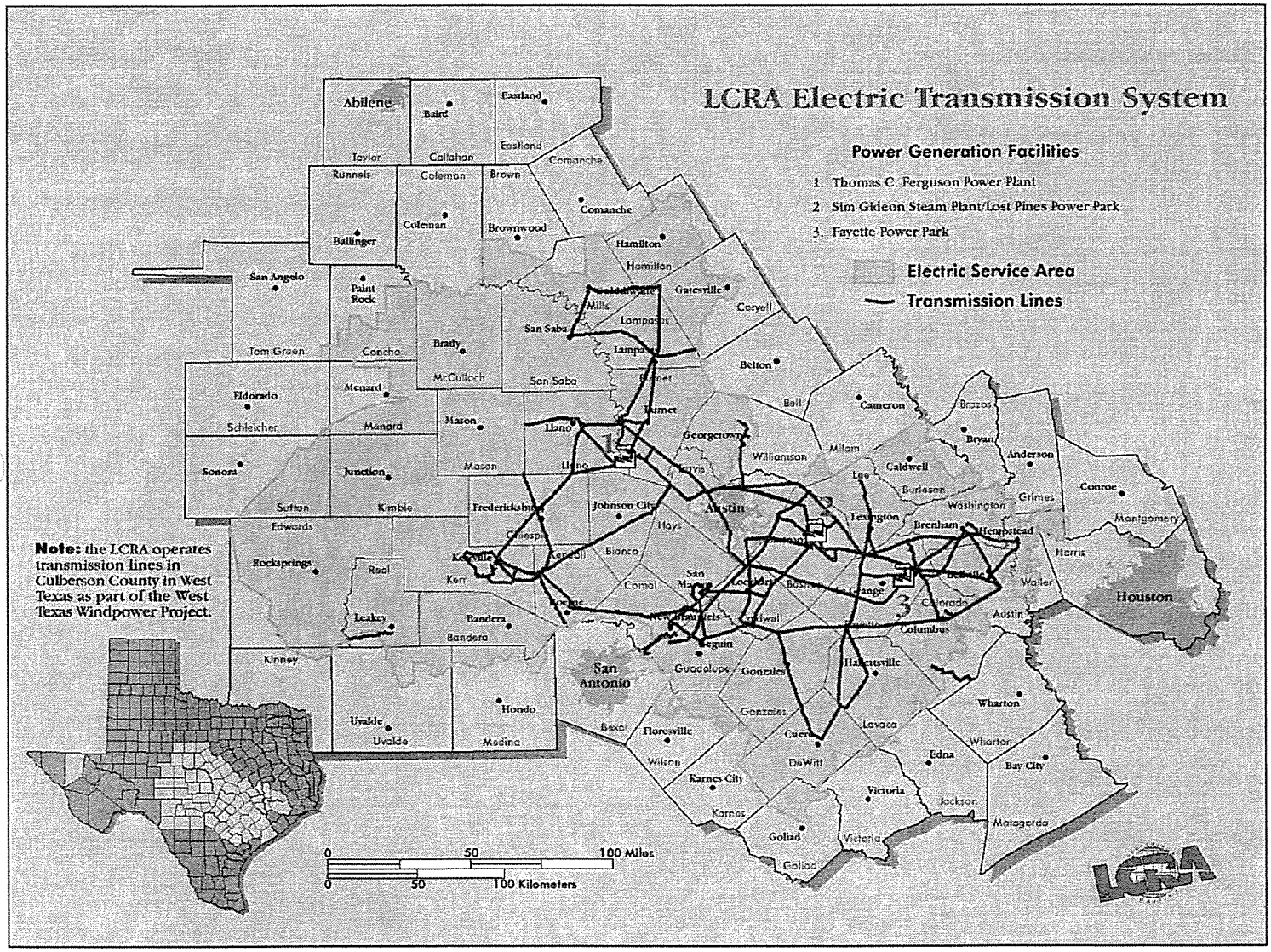
APPENDIX D

RIO NOGALES PLANT: AERIAL VIEW OF LOCATION



APPENDIX E

LOWER COLORADO RIVER AUTHORITY GRID


LCRA Electric Transmission System
Power Generation Facilities
1. Thomas C. Ferguson Power Plant
2. Sim Gideon Steam Plant/Lost Pines Power Park
3. Fayette Power Park
Electric Service Area
Transmission Lines
Note: the LCRA operates transmission lines in Culberson County in West Texas as part of the West Texas Windpower Project.
Abilene
Baird
Eastland
Taylor
Callahan
Eastland
Comanche
Runnels
Coleman
Brown
Comanche
Coleman
Brownwood
Ballinger
Hamilton
Hamilton
San Angelo
Paint Rock
Gatesville
Coryell
Mills
Lampasas
San Saba
Lampasas
Tom Green
Concho
Brady
McCulloch
San Saba
Belton
Eldorado
Menard
Burnet
Bell
Cameron
Brazos
Schleicher
Menard
Mason
Llano
Burnet
Georgetown
Bryan
Williamson
Milam
Anderson
Sonora
Junction
Mason
Llano
Travis
Caldwell
Lee
Burleson
Conroe
Sutton
Kimble
Fredericksburg
Johnson City
Austin
Washington
Grimes
Edwards
Hays
Lexington
Brenham
Hempstead
Montgomery
Kerrville
Kendall
Bianco
Harris
Rocksprings
Real
Kerr
Comal
San Marcos
Lockhart
Bastrop
La Grange
Bellville
Waller
Houston
Leakey
Bandera
Bandera
New Braunfels
Caldwell
Colorado
Austin
Columbus
Kinney
Seguin
San Antonio
Guadalupe
Gonzales
Hallettsville
Wharton
Uvalde
Uvalde
Hondo
Medina
Bexar
Floresville
Gonzales
Cuero
Lavaca
Wharton
Wilson
DeWitt
Edna
Bay City
Karnes City
Victoria
Jackson
Karnes
Goliad
Victoria
Matagorda
Goliad
0
50
100 Miles
0
50
100 Kilometers
LCRA

RENEA HICKS

Renea Hicks is a solo practitioner in Austin, Texas. He formerly served as litigation director for a disability rights public interest organization, State Solicitor with the Texas Attorney General's Office, and a partner in the Austin litigation firm of George & Donaldson.

Renea graduated from the University of Texas School of Law with honors in 1976 and served the next year as law clerk for Judge Sarah T. Hughes of the United States District Court for the Northern District of Texas.

His practice involves both litigation and appellate work in a variety of areas, including environmental, land use, elections, and telecommunications/municipal franchise law. He serves as an Adjunct Professor at the University of Texas School of Law, teaching a seminar in "Suing and Defending the Government."

HAZARDOUS LIQUID PIPELINES AND THE ENVIRONMENT: THE LONGHORN PIPELINE DISPUTE

Renea Hicks
800 Norwood Tower
114 West 7th Street
Austin, Texas 78701
(512) 480-8231
fax: (512) 476-4557

13TH ANNUAL TEXAS ENVIRONMENTAL SUPERCONFERENCE
August 2-3, 2001
Austin, Texas

HAZARDOUS LIQUID PIPELINES AND THE ENVIRONMENT: THE LONGHORN PIPELINE DISPUTE

I. Pipelines and the President's Energy Policy

A. The President's *NATIONAL ENERGY POLICY* report

Pipelines, and hazardous liquid pipelines in particular, received only modest attention in President Bush's energy plan blueprint earlier this year. Chapter 7 ("America's Energy Infrastructure") of the blueprint – the **Report of the National Energy Policy Development Group** entitled ***RELIABLE, AFFORDABLE, AND ENVIRONMENTALLY SOUND ENERGY FOR AMERICA'S FUTURE*** (here, "***NATIONAL ENERGY POLICY***") – discusses pipelines. It is located at www.whitehouse.gov/energy/.

The only specific recommendation in the report concerning hazardous liquid pipelines deals with expediting renewal of the right-of-way permit for the Trans-Alaskan Pipeline System. ***NATIONAL ENERGY POLICY***, 7-10

More generally, the report remarks on "the need to use 21st-century technology to improve American's aging energy infrastructure." *Id.*, 7-1. It laments "the failure to maintain the infrastructure needed to move energy where it is needed most." "[T]wo million miles of oil pipelines in the United States ... account for about 66 percent of domestic product movements." *Id.*, 7-9.

After noting that pipelines are "relatively inexpensive to operate" and "generally quiet and safe," the report adds that "[e]nsuring pipeline safety requires careful management[.]" *Id.* One of the reasons for the concern about safety, especially pertinent to the Longhorn Pipeline matter, is stated in the report:

> Much of the existing oil pipeline infrastructure is old, requiring regular safety and environmental reviews to ensure its reliability. The potential risk of pipeline accidents to human health and safety is of grave concern.
> ....
> To avoid similar crises, the Department of Transportation, which has responsibility for pipeline safety, has adopted regulations and other risk management approaches to ensure safety in pipeline design, construction, testing, operation, maintenance, and emergency response.

Id., 7-10. A little later, the report suggests the consistent federal, state, and local policies, coupled with "faster, more predictable regulatory decisions on permitting" for pipelines are needed "to enable timely and cost-effective infrastructure development." *Id.*, 7-12.

B. The *Austin American-Statesman's* series: "Pipelines: The Invisible Danger"

On July 22-25, 2001, the *Austin American-Statesman* ran a lengthy series, reporting on a detailed study of the American pipeline industry and its relationship with the federal regulatory body with oversight responsibilities over pipelines, the Office of Pipeline Safety ("OPS"), which is part of the Research and Special Programs Administration within the U.S. Department of Transportation ("DOT"). The work of the two reporters for that series – Ralph K.M. Haurwitz and Jeff Nesmith – calls into question whether, as ***NATIONAL ENERGY POLICY*** concludes, DOT in fact has adopted a regulatory posture that "ensure[s] safety" in the nation's aging pipeline infrastructure. The series (I believe) can be found at www.austin360.com/local/partners/aas/specialreports/pipelines/.

II. The Longhorn Pipeline Dispute

This paper will use the Longhorn Pipeline dispute as a vehicle to work through an outline of some of the major statutes concerning hazardous liquid pipelines and some of the legal and environmental issues that arise in connection with planned construction and operation of such pipelines.

A. Basic outline of the Longhorn Pipeline project

The Longhorn Pipeline runs nearly 700 miles across Texas, from Houston to El Paso. In El Paso, on the Fort Bliss military reservation, it would be linked to two other pipelines which run west, one to Albuquerque, New Mexico, and the other to Phoenix, Arizona. The plan is for the pipeline to carry refined petroleum products from Texas Gulf Coast refining areas to markets in El Paso and points further west. For most of the line's length, it is 18 inches in diameter, and at full capacity it will transport 225,000 barrels a day of product.

Approximately 450 miles of the planned Longhorn line is actually the old Exxon Pipeline, built primarily in 1950 to carry unrefined crude oil from West Texas oil fields to Houston-area refineries. Longhorn, itself a limited partnership, bought the old petroleum line from Exxon Pipeline Company and linked it with 237 newly-constructed miles of pipeline, running from Crane (near Odessa) to El Paso.

B. Basic outline of the Longhorn Pipeline litigation (*Collins v. Spiller*)

A rancher, law professor/landowner, and, later, a local groundwater conservation district filed suit against Longhorn and several federal agencies in the spring of 1998 in the U.S. District Court for the Western District of Texas (Civil Action No. A-98-CA-255-SS). Later, the City of Austin and the Lower Colorado River Authority intervened as plaintiffs.

The essential legal claim was that the pipeline should not be allowed to operate until it had undergone environmental scrutiny pursuant to the National Environmental Policy Act, 42 U.S.C. §§ 4321-4307d ("NEPA"). The district court granted a preliminary injunction, enjoining operation until the federal government had conducted an environmental impact study ("EIS") of the line. Subsequently, after the Fifth Circuit had

refused Longhorn's request for an emergency stay and denied the pipeline's request for expedited disposition of the case, the parties negotiated a complex settlement agreement for the first phase of the case. Essentially, the government had to conduct an "enhance" version of an environmental assessment ("EA") to determine whether an EIS should be conducted. On November 3, 2000, the federal government announced that, in exchange for a list of mitigation measures for the pipeline, it would not conduct an EIS, instead issuing a Finding of No Significant Impact ("FONSI").

Whether the November 3rd FONSI is consistent with NEPA and with the first-phase settlement agreement is now pending before the district court.

III. Statutory framework for hazardous liquid pipelines

The Longhorn Pipeline dispute throws into relief the basic statutory and regulatory framework for hazardous liquid pipelines. That framework is outlined below.

A. State law framework

1. Railroad Commission

The power of eminent domain by private entities belongs to common carriers. "Common carriers have the right and power of eminent domain." Tex. Nat. Res. Code § 111.019(a). Longhorn would be a common carrier.

The basic categories of common carriers are listed in § 111.002 of the Natural Resources Code. If an entity "owns, operates, or manages a pipeline ... in the State of Texas for the transportation of crude petroleum to or for the public for hire, or engages in the business of transporting crude petroleum by pipeline," it is a "common carrier" subject to Chapter 111 of the Natural Resources Code. Tex. Nat. Res. Code § 111.002(1).

The plain words of this provision suggest that transportation of refined products – as opposed to "crude petroleum" – would not bring an entity within the common carrier designation. But the legislature remedies that gap as to product lines of limited partnerships through Tex. Rev. Civ. Stat. art. 6132a-1, § 1.09(c):

> A limited partnership engaged as a common carrier in the pipeline business for transporting . . . oil products . . . has all of the rights and powers conferred by Sections 111.019 through 111.022, Natural Resources Code. A limited partnership that is a common carrier as defined in Section 111.002, Natural Resources Code, has in addition all of the obligations conferred by Sections 111.001 through 111.025, Natural Resources Code.

Section 13.02(b) of that article extends the rights and obligations conferred in § 1.09(c) to limited partnerships "transacting business in Texas."

Section 111.013 of the Natural Resource Code provides in part:

> A pipeline subject to the provisions of this chapter [Chapter 111] ... shall be subject to the jurisdiction of the commission.

Because common carriers are subject to Chapter 111's provisions, and because pipelines subject to Chapter 111 are subject to RRC jurisdiction, products pipelines such as Longhorn are subject to RRC jurisdiction.

Among the Chapter 111 provisions to which products lines are subject are:

- "The operation of common carriers . . . is a business in which the public is interested and is subject to regulation by law," § 111.011;

- "Particular powers granted to the [RRC] by the provisions of [Chapter 111] do not limit the general powers conferred by other laws," § 111.012;

- "[C]ommon carriers are entitled to lay, maintain, and operate along, across, or under a public stream or highway in this state pipelines," § 111.020(a);

- "The provisions of [Chapter 111] do not grant a pipeline company the right to use a public street or alley in an incorporated or unincorporated city or town except with express permission of the governing body of the city or town . . . ," § 111.022;

- "No common carrier may abandon any of its . . . lines except under authority of a permit granted by the [RRC]," § 111.025; and

- "Upon written request by a resident or owner of land crossed by a common carrier pipeline, the common carrier must disclose material data safety sheets concerning the commodities transported by the common carrier required by the [RRC] and the Emergency Planning and Community Right-to-Know Act of 1986 . . .," § 111.019(b).

To bring itself within Chapter 111, a products line must meet two procedural requirements. It must submit an organization report for "acceptance and approval" by the RRC. (The organization report contains only basic administrative information about the pipeline. *See* 16 TAC § 3.1. It also must apply for a permit. "No pipeline or gathering system, whether a common carrier or not, shall be used to transport oil, gas or geothermal resources . . . within this state without a permit from the commission." 16 TAC § 3.65. (It is clear that the RRC interprets this permit requirement to extend to products lines because the basic permit application for products lines – the T-4 – references § 3.65.) Satisfying the RRC that the pipeline is or will be "laid, equipped, and managed" so as to reduce to a minimum the possibility of waste, and that it will be "operated in accordance with the conservation laws and conservation rules and regulations of the commission" is the test of whether the permit is to be issued.

The RRC has the authority to revoke the organization report (which, recall, is one of the two prerequisites to pipeline operation). *See* TEX. NAT. RES. CODE § 91.114(1). Further:

> In determining whether or not to revoke an organization's organization report . . . the commission shall consider the organization's history of previous violations, the seriousness of previous violations, any hazard to the health or safety of the public, and the demonstrated good faith of the organization.

Id., § 91.114(l). The RRC has a regulation, 16 TAC § 3.65(b), that adds to this basis statutory rule for revocation. (This provision speaks of revoking "permits," not the organization report.) It provides that, after 10 days notice and a hearing, the RRC may revoke if the commission finds that the pipeline operator "in its operation thereof" is:

> willfully violating or contributing to the violation of the laws of Texas regulating the production, transportation, processing, refining, treating, and/or marketing of crude oil or geothermal resources, or any of the laws of the state to conserve the oil, gas, or geothermal resources, or any rule or regulation of the commission enacted under such laws.

2. General Land Office

i. § 51.291 of the Texas Natural Resources Code

The Land Commissioner generally has authority to grant easements for crossing some public lands; however, as to certain easements, the authority is shared with the Texas Parks & Wildlife Department. The pertinent provisions are:

> (a) Except as provided by Subsection (b) of this section, the commissioner may execute grants of easements for rights-of-way across, through, and under unsold public school land, . . . the state-owned riverbeds and beds of navigable streams in the public domain, and all islands, saltwater lakes, bays, inlets, marshes, and reefs owned by the state within the tidelands limits for . . . oil pipelines . . . and pipelines of any nature. . .
>
> (b) Consent to conduct an activity that would disturb or remove marl, sand, gravel, shell, or mudshell on or near the surface of a state-owned riverbed or the bed of a navigable stream in the public domain may be granted only under Chapter 86, Parks and Wildlife Code.

TEX. NAT. RES. CODE § 51.291.

Pipeline right-of-way easements "shall be executed on terms to be determined by the commissioner or the board of regents." NAT. RES. CODE § 51.295. "The grant of the

easement may contain any provisions that the commissioner considers necessary to protect the interests of the state[.]" *Id.* at § 51.305. The terms of easements may be for "any term the commissioner deems to be in the best interest of the state." *Id.* at § 51.296.

The commissioner also may remove and dispose of a facility or structure on land owned by the state if the commissioner finds such to be without the "proper easement from the state" or "an imminent and unreasonable threat to public health, safety, or welfare." TEX. NAT. RES. CODE § 51.3021. This decision is discretionary with the commissioner; it imposes no duty of removal on the state. *Id.* Those affected by a removal order may obtain a hearing. 31 TAC § 17.8.

The statute does not appear to allow for grandfathering. Facilities existing at the time of the enactment of the applicable provisions of the Natural Resources Code still must obtain an easement from GLO:

> No person . . . who owns or possesses a facility or structure that is now located on or across state land [may] continue in possession of the land unless he obtains from the commissioner, board, or the board of regents an easement, lease, permit or other instrument required . . . for the land on which the facility or structure is to be constructed or is located.

NAT. RES. CODE § 51.302. An application must be filed to assign an easement, and assignment is subject to the written approval of the commissioner. 31 TAC § 13.13. Easements are limited to the specific kind of pipeline described in the granting clause of the contractual agreement. 31 TAC § 13.12.

ii. § 26.001 of the Natural Resources Code

A significant provision is found in § 26.001(a). It provides:

> A department [or] agency . . . of this state may not approve any . . . project that requires the use . . . of any public land designated and used prior to the arrangement of the . . . project as a park, recreation area, scientific area, wildlife refuge, or historic site, unless the department [or] agency . . . determines that:
>
> > (1) there is no feasible and prudent alternative to the use . . . of such land; and
> >
> > (2) the . . . project includes all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge, or historic site, resulting from the use[.]

Subsection (b) of the section provides that such a finding must be only after notice and hearing.

Compliance with the chapter is not *required* – suggestion that it may be permitted – if the land has not been designated for use as a park, recreation area, or wildlife refuge before September 1, 1975. TEX. NAT. RES. CODE § 26.004(3).

B. Federal law framework

1. Hazardous Liquid Pipeline Safety Act, 49 U.S.C. § 6010 *et seq.*

Interstate hazardous liquid pipelines are governed chiefly by the provisions of the Hazardous Liquid Pipeline Safety Act ("HLPSA").

Interstate hazardous liquid pipelines that transport petroleum or petroleum products, plus other substances if the Secretary of Transportation designates them. 49 U.S.C. § 60101(a)(4) (defining "hazardous liquid").

(***Momentary detour***: *The Secretary's designation authority under subsection (4) of § 60101(a) may not bring liquefied natural gas lines within the ambit of interstate hazardous liquid pipelines. § 60101(a)(4)(B). Liquefied natural gas pipeline facilities are treated separately under HLPSA, in § 60103. Additionally, natural gas pipelines are not under HLPSA; they are under a different federal regulatory regime.*)

HLPSA directs the Secretary of Transportation to "prescribe minimum safety standards for pipeline transportation and for pipeline facilities." 49 U.S.C. § 60102(a)(1). The detailed standards for petroleum and petroleum product lines, as promulgated by DOT, are contained in the regulation found at 49 C.F.R. Part 195.

HLPSA contains a specific preemption provision concerning safety standards for interstate hazardous liquid lines: "A State authority may not adopt or continue in force safety standards for interstate pipeline facilities or interstate pipeline transportation." 49 U.S.C. § 60104(c) (2nd sent.).

In contrast to the safety standard preemption provision, HLPSA specifically deprives the federal government of the authority to "prescribe the location or routing of a pipeline facility." 49 U.S.C. § 60104(e). (*This provision as to hazardous liquid lines is in contrast to provisions for both liquefied natural gas lines and natural gas lines, both of which contain mechanisms for federal decisions concerning locations for those kinds of lines. For liquefied natural gas lines, 49 U.S.C. § 60103(a) specifically authorizes the Secretary of Transportation to "prescribe minimum safety standards for deciding on the location of a new liquefied natural gas pipeline facility." With regard to natural gas pipelines, under Section 7 of the Natural Gas Act, 15 U.S.C. §§ 717* et seq., *such lines cannot be constructed or operated unless the Federal Energy Regulatory Commission ("FERC") has first issued a certificate of public convenience and necessity, which certificate will prescribe and define the permitted route of the pipeline.*)

For several years, since at least 1994, Congress has been trying to force DOT/OPS to identify areas of special environmental and safety concern. These areas are termed "unusually sensitive areas," or "USAs." The congressional direction was to

prescribe regulations for interstate hazardous liquid lines that identify those crossing "navigable waterway[s][,]... "high-density population areas[s], ...[and areas] "unusually sensitive to environmental damage if there is a hazardous liquid pipeline accident[.]" 49 U.S.C. § 60109(a)(B)(i)-(ii). At the end of last year, DOT/OPS finally got around to promulgating these USA rules. *See* 65 Fed.Reg. 80530 (Dec. 21, 2000). The *AUSTIN AMERICAN-STATESMAN* series discusses the criticism of these USA rules, criticism based on their narrow definition of what constitutes unusually sensitive areas and on the close involvement of the pipeline industry in their development.

2. The Oil Pollution Act of 1990, 33 U.S.C. §§ 2701-2720

The Exxon Valdez spill was the catalyst for enactment of the Oil Pollution Act of 1990 ("OPA"). This statute reaches pipelines, too.

Section 4202 of OPA modified Section 311(j) of the Federal Water Pollution Control Act. Under the law as revised by OPA, response plans for vessels and "facilities" that produce, store, transport, refine, and market oil have to be submitted to the appropriate federal agency. As "facilities," interstate hazardous liquid pipelines have to develop and submit these spill response plans to DOT. DOT, in turn, has approval authority with respect to these spill response plans.

In 1999, after the initial preliminary injunction ruling in favor of the plaintiffs and against DOT/OPS by the federal district court in the Longhorn litigation, the Research and Special Programs unit of DOT (in which OPS is ensconced) undertook a programmatic EA of OPS's "Response Plan Review and Exercise Program." *See* 64 Fed. Reg. 47228 (Aug. 30, 1999). It is reported in the *AUSTIN AMERICAN-STATESMAN* series that this programmatic EA concluded that, henceforth, NEPA obligations for OPS are not triggered by its review of pipeline spill response plans.

IV. The litigation over the Longhorn Pipeline

The NEPA litigation over the Longhorn Pipeline occurred against this backdrop. The basic theory of the case was that Longhorn's operation required "major federal action" and that such major federal action could have a significant effect on the environment – which is the trigger for an EIS under NEPA.

The lawsuit pointed to the fact that, in addition to the spill response plan approval requirements and other HLPSA-based obligations of OPS, actions by numerous other federal agencies were required before the pipeline could begin operation. Among these other actions were determinations by the U.S. Army Corps of Engineers with respect to streambed crossings and disturbances by the pipeline, by the U.S. Army's Fort Bliss need to approve right-of-way permits for crossing of the military reservation by Longhorn lines, the Federal Communications Commission need to approve licenses needed to operate remote-controlled valves for the pipeline, as well as other federal actions by EPA and the U.S. Fish and Wildlife Service.

The federal government's response was that aggregation of these actions was not appropriate and that, individually, none of them constituted major federal action sufficient to trigger NEPA obligations.

The federal district court disagreed with the government's position (although the Court did hold that FERC's rate determinations with respect to hazardous liquid pipelines was not the sort of action that could be added to the cumulative effect of the federal actions.

As indicated earlier, the case is proceeding to its second stage before the federal district court on the question of whether the FONSI of November 3rd is valid.

The following information is supplied for those who would like to delve more deeply into wetland issues and specifically issues of "waters of the United States", "navigable waters" the SWANCC decision and its potential ramifications:

	PAGE #
I. A Brief Summary of the SWANCC decision	1
II. PART 328 - DEFINITION OF WATERS OF THE UNITED STATES (from Regs)	1
III. PART 329--DEFINITION OF NAVIGABLE WATERS OF THE UNITED STATES	4
IV. Selected overview of case law of Waters of the United States	5
V. 19 Jan 2001 Memorandum from EPA and DOA on SWNACC	8
VI. Article from 'Inside EPA"	14

I. Brief Summary of SWANCC Decision

The Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178 (January 9, 2001) (SWANCC) involved statutory and constitutional challenges to the assertion of Clean Water Act (CWA) jurisdiction over isolated, non-navigable, intrastate waters used as habitat by migratory birds.

In the 5-4 decision, the Supreme Court held that the Corps exceeded its statutory authority by asserting CWA jurisdiction over "an abandoned sand and gravel pit in northern Illinois, which provides habitat for migratory birds." It summarized its holding as follows: "We hold that 33 C.F.R. § 328.3(a)(3) (1999), as clarified and applied to petitioner's balefill site pursuant to the 'Migratory Bird Rule,' 51 Fed. Reg. 41217 (1986), exceeds the authority granted to respondents under § 404(a) of the CWA." Although the Court held that the Corps' application of § 328.3(a)(3) was invalid in SWANCC; the Court did not strike down §328.3(a)(3) or any other component of the regulations defining "waters of the United States."

Based on the Supreme Court's holding the only isolated waters that the Corps of Engineers will not continue to regulate are those isolated waters where the only interstate commerce connection is use by migratory birds.

II. PART 328 - DEFINITION OF WATERS OF THE UNITED STATES

AUTHORITY: 33 U.S.C. 1344.

Source: 51 PR 41250. Nov. 13, 1986, **unless otherwise noted.**

$ 328.1 **Purpose.**

This motion defines the term "waters of the United States" as It applies to the Jurisdictional limits of the authority of the Corps of Engineers under the Clean Water Act. It prescribes the policy practice. and procedures to be used in determining the extent of jurisdiction of the Corps of Engineers concerning "waters of the United States." The terminology used by section 401 of the Clean Water Act Includes navigable waters', which to defined at section 502(7) of the Act as "waters of the United States including the territorial seas." To provide clarity and to avoid confusion with other Corps of Engineer regulatory

programs. The term "waters of the United States" is used throughout 33 CFR parts 320 through 330. This section does not apply to authorities under the Rivers and Harbors Act of 1899 except that some of the same water* may be regulated wider both statutes (see 33 CFR parts 322 and 329).

328.2 General scope

Waters of the United States include those waters listed in 328.3(a). The lateral limits of Jurisdiction in those waters may be divided into three categories. The categories include the territorial seas, tidal waters. and nontidal waters (we 33 CPR 328.4 (a). M. and (c). respectively.

328.2 Definitions

For the purpose of this regulation these terms are defined as follows:

(a) The term waters of the United States means

(1) All waters which are currently used or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All Interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers. streams (including intermittent streams). mudflats, sandflats, wetlands, sloughs. prairie potholes, wet meadows, playa, lakes, or natural ponds, the use, degradation or destruction of which could affect Interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes: or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purpose by Industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

(8) Waters of the United States do not include prior converted cropland. Notwithstanding, the determination of an area's status as prior converted cropland by any other Federal agency for the purposes of the Clean Water Act. The final authority regarding Clean Water Act jurisdiction remains with EPA.

Waste treatment systems. Including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined In 40 CPR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

(b) The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a

prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(c) The term *adjacent* means bordering, contiguous, or neighboring. 'Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like am "adjacent wetlands."

(d) The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined. in the absence of actual data. by a line of oil or scum along shore objects. a more or low continuous deposit of fine shell or debris on the foreshore or berm. other physical markings or characteristics, vegetation lines. tidal gages or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not Include storm surges In which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such an those accompanying a hurricane or other Intense storm.

(e) The term ordinary *high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed an the bank. shelving. changes in the character of soil. destruction of terrestrial vegetation. the presence of litter and debris. or other appropriate means that considers the characteristics of the surrounding areas.

(f) The term *tidal waters* means those waters that rise and fall to a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

151 PR 41250, Nov. 13. INS. **as amended at 58 PR 45036, Aug. 25. 1993)**

328.4 Limits of jurisdiction.

(1) *Territorial Seas.* The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CPR 329

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

(2) Extends to the high tide line or

(2) When adjacent non-tidal waters of the United States am present, the jurisdiction extends to the limits identified in paragraph (c) of this section

(c) Non-Tidal Waters of the United *States.* The limits of Jurisdiction In non-tidaI waters:

(1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or

(2) When adjacent wetlands art present. the jurisdiction extends beyond the ordinary high water m k to the limit of the adjacent wetlands.

III. PART 329--DEFINITION OF NAVIGABLE WATERS OF THE UNITED STATES

AUTHORITY: 33 U.S.C. 401 et seq.

Source 51 PR 41251. Nov. 13. 1986 unless otherwise noted.

329.1 Purpose

This regulation defines the term "navigable waters of the United States" as it is used to define authorities of the Corps of Engineers. It also prescribes the policy, practice and procedure to be used in determining the extent of the Jurisdiction of the Corps of Engineers and in answering inquiries concerning "navigable waters of the United States." This definition does not apply to authorities under the Clean Water Act which definitions are described under 33 CPR Parts 323 and 328.

Precise definitions of "navigable waters Of the United States- or --navigability are ultimately dependent on judicial interpretation and cannot be made conclusively by administrative agencies. However, the Policies and criteria contained In this regulation am in close conformance with the tests used by Federal courts and determinations made under this regulation are considered binding in regard to the activities of the Corps of Engineers.

329. 4 General definitions

Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/ or are presently used, or have been used in the put, or may be susceptible for use to transport Interstate or for commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity.

#329.5 General scope of determination.

The several factors which must be examined when making a determination whether a waterbody is a navigable water of the United States are discussed in detail below. Generally, the following conditions must be satisfied:

(a) Past, present. or potential presence of interstate or foreign commerce:

(b) Physical capabilities for use by commerce as in Paragraph (a) of this section; and

(c) Defined geographic limits of the waterbody.

329.6 Interstate or foreign commerce.

(a) Nature of commerce. type, means, and extent of use. The types of commercial use of a waterway an extremely varied and will depend on the character of the region. Its products, and the difficulties or dangers of navigation.

IV. SELECTED OVERVIEW OF CASE LAW RELATING TO "WATERS OF THE U.S."

SUPREME COURT

SWANCC v. Army Corps of Engineers, 121 S. Ct. 675 (2001)

In Solid Waste Authority of Northern Cook County v. Army Corps of Engineers (SWANCC), the Supreme Court held that the Corps (and by definition EPA) does not have jurisdiction over "non-navigable, isolated, intrastate" waters based solely on the use of such waters by migratory birds".

United States v. Riverside Bayview Homes, Inc., 4 74 U.S. 121 (1985) In Riverside Bayview Homes the Supreme Court upheld the legality of the basic provisions of the Corps' CWA jurisdictional regulation, which the Court described (at 129) as follows: "The [Corps and EPA jurisdictional] regulation extends the Corps' authority under Section 404 to all wetlands adjacent to navigable or interstate waters and their tributaries." The Court in SWANCC did not overrule the holding or rationale of Riverside Bayview Homes, which continues to provide authority for the EPA and the Corps to assert CWA jurisdiction over, inter alia, all of the traditional navigable waters, all interstate waters, and all tributaries to navigable or interstate waters, upstream to the highest reaches of the tributary systems, and over all wetlands adjacent to any and all of those waters.

Kaiser Aetna DAL v. U.S., 444 U.S. 164 (1979):

The courts have employed a number of tests for determining whether waters are navigable for purposes of federal law, which tests are set out in *Kaiser Aetna v. United States,* 444 U.S. 164, 171-172 (1979) (describing tests); id. at 182-183 (Blackmun, J., dissenting);

3RD CIRCUIT

U.S. v. Malibu Beach, Inc., 711 F.Supp. 1301, (Dist. N.J. 1989): Waters Involved - The Malibu Beach property is bound to the east by the Great Egg Harbor Inlet, and to the west by Longport Boulevard. Malibu Beach consists of a beach area abutting the inlet, a central dune area, and a pool of water, which is situated between the dunes and Longport Boulevard. The pool is subject to the influence of the tides from Great Egg Harbor Inlet. In the alternative, the Government argues that the fill areas contain wetlands adjacent to the inlet, as defined in the regulations, and are therefore within the jurisdiction of the CWA.

Ct. Rationale - To fall within the definition of adjacent wetlands, a wetland area must be "bordering, contiguous or neighboring" waters of the United States. This court has already determined that the pool was subject to the ebb and flow of the tide from Great Egg Harbor Inlet, which is a navigable waterway within the definition of "waters of the United States." Thus, the wetlands at Malibu Beach are adjacent to waters of the United States for the purpose of the CWA. Additionally, the wetland areas of Malibu Beach fall within the jurisdiction of the CWA by an alternative means. The CWA regulations include as adjacent wetlands those areas separated by certain man-made or natural structures, including "beach dunes and the like.(3) C.F.R. § 328.3(c). Great Egg Harbor Inlet is a navigable waterway and therefore a water of the United States within the jurisdiction of the CWA. The wetlands of Malibu Beach are separated from the inlet only by beach dunes and sand. Even if this court concluded that the central breach areas had closed by natural causes before fill materials were deposited and that therefore there was no tidal connection between the two bodies of water, the wetlands contained in Sites 2, 3 and 4 are adjacent to the waters of the Great Egg Harbor inlet.

U.S. v. Oxford Royal Mushroom Products, Inc., 48 7 F. Supp. 852 (E.D. Pa. 1980): Waters Involved - wastewater runoff from field ran into a near-by non-navigable stream through a break in the berm surrounding the field.

Ct. Rationale - The term "navigable waters" under CWA does not require navigability in fact.

4TH CIRCUIT

Hobbs v. U.S., 1991 U.S. App. LEXIS 27696 (4th Cir. 1991): Waters Involved - parcel of wetlands with non-tidal drainage ditches near the Ware River

Ct. Rationale - the statute does not limit adjacency to literal bordering. The term 'adjacent' means bordering, contiguous, or neighboring. Wetlands separated from other waters of the US by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands.' The landward limit of Fed. jurisdiction under Section 104 must include any adjacent wetland that form the border or are in reasonable proximity to other waters of the US, as these wetlands are part of the aquatic system. An expert in hydrology and hydrogeology testified that there was both a ground water and surface water connection between the Hobbes' property and the Ware River.

5 TH CIRCUIT

Avoyelles Sportsman's League v. Marsh, 715 F.2d 897 (5th Cir. 1983): Waters Involved - 20,000 acre tract of land (the Lake Long track) that lies within the Bayou Natchitoches basin, which along with other land makes up the Red River backwater area. The basin is subject to flooding during spring months and experiences rainfall of 60 inches/yr on average.

Ct. Rationale - "We cannot say that the EPA's application of the definition to areas, like the Lake Long Tract, which experience significant flooding during a substantial portion of the year and serve as a major overflow or backwater areas for the nation's rivers, or its conclusion that the discharge of pollution into such areas would have a significant effect on the nation's waters, was an unreasonable application of the statute. The EPA's decision is therefore entitled to our respect."

6 TH CIRCUIT

U.S. v. Cumberland Wood and Chair Corporation, 1992 U.S. App. LEXIS 28885, (6th Cir. 1992): Waters Involved - discharge from a pipe into a ditch that flowed into a nearby pond

Ct. Rationale - Congress meant to control the discharge of pollutants into the non-navigable tributaries of navigable waters as well as the discharge of pollutants into the navigable waters themselves ... It is of no consequence that the tributary allegedly polluted was a small one. See Quivira Mining; Texas Pipeline Co; Texas Mun. Power Agency; Ashland Oil. The pollution of a small, non-navigable tributary of a navigable waterway constitutes pollution of the waters of the United States.

U.S. v. Larkin, 852 F. 2d 189 (6' Cir 1988): Waters Involved - a large parcel of land in the flood plain of Onion Creek, a tributary of the Mississippi River, that was knee deep in water upon purchase

Ct. Rationale - not necessary for land to be saturated frequently to constitute "wetlands"... "the presence of vegetation that requires saturated soil condition for growth and reproduction on land

adjacent to a body of navigable water is sufficient to bring the land under the ... definition of 'wetlands'" (at 190)

U.S. v Ashland Oil and Transp. Co., 504 F.2d. 1317 (6" Cir. 19 74):

Waters Involved - a non-navigable tributary of a non-navigable tributary of a non-navigable tributary of a navigable water

Ct. Rationale - "certainly the congressional language must be read to apply to our instant case involving pollution of one of the tributaries of a navigable river. Any other reading would violate the specific language of the definition just quoted and turn a great legislative enactment into a meaningless jumble of words..." The statute lends some weight to the government's argument by its many references (some of which we have quoted above) to aspects of pollution control which have no possible direct bearing on navigability. Congressional concern in the 1972 Act with the impact of pollution upon fishing for commercial purposes of interstate travelers, and for the needs of towns, cities, industries and farms for unpolluted water for both health and commerce, supports this broader concept ... It would, of course, make a mockery of those powers if U.S. authority to control pollution was limited to the bed of the navigable stream itself. The tributaries which join to form the river could then be used as open sewers as far as federal regulation was concerned. The navigable part of the river could become a mere conduit for upstream waste. Such a situation would have vast impact on interstate commerce. States with cities and industries situated upstream on the non-navigable tributaries of our great rivers could freely use them for dumping raw sewage and noxious industrial waste....

7TH CIRCUIT

U.S. v. Byrd, 609 F.2d 1204 (1979): Waters Involved: Wetland swamps adjacent to 3,000-acre freshwater lake.

Ct. Rationale - "the recreational use of inland lakes has a significant impact on interstate commerce, as is testified to by the number of out-of-state visitors to Lake Wawasee in particular. The value of these lakes depends, in part, on the purity of their water for swimming, or the abundance of fish and other wildlife inhabiting them or the surrounding wetland and land areas ... The Corps has come to recognize the importance of wetlands adjacent to lakes in preserving the biological, chemical, physical integrity of the lakes they adjoin ..... "Destruction of all or most of the wetlands around Lake Wawasee, for example, could significantly impair the attraction the lake holds for interstate travelers by degrading the water quality of the lake, thereby indirectly affecting the flow of interstate commerce. We conclude that Congress constitutionally may extend its regulatory control of navigable waters under the Commerce Clause to wetlands which adjoin or are contiguous to intrastate lakes that are used by interstate travelers for water-related recreational purposes defined by 33 CFR 209.120(d)(2)(i) (G) & (H).

9TH CIRCUIT -

Headwaters, Inc. v. Talent Irrigation District, 243 F.3d 526 (9th Cir. 2001) Waters Involved: a system of irrigation canals that derive water from a variety of surface streams and other bodies of water; the canals also divert water to such streams as Bear Creek, Wagner Creek, Anderson Creek, Coleman Creek, Dark Hollow Creek, and Butler Creek.

This is a CWA citizen suit alleging that the Talent Irrigation District needed an NPDES permit to apply an aquatic herbicide to its irrigation canals. In this context, the court had to decide whether the canals were waters of the United States. Referring to the dictionary definition of

"tributary" as a "stream which contributes its flow to a larger stream or other body of water," the court held that the irrigation canals were waters of the U.S. because they derived their water from a variety of natural streams and lakes and diverted water to surface streams and creeks. The court went on to state that its conclusion was not affected by SWANCC because the irrigation canals were not isolated waters but rather tributaries to other waters of the U.S. The court also stated that it would make no difference whether the canals were blocked off from other waters, because "[e]ven tributaries that flow intermittently are 'waters of the United States."'

United States v. Mitch Buda (D. Mont. 2001) -On January 9,2001, Mitch Buday pled guilty to y a criminal violation of Section 404 for discharging dredged and fill material into wetlands that were 190 miles upstream of navigable-in-fact waters. Hours later SWANCC was decided, and Mr. Buday moved to withdraw his guilty plea. The court asked for supplemental briefing. On April 11, 2001, in a 28-page opinion, Chief Judge Donald Molloy of the United States District Court for the District of Montana denied the motion. The wetlands in question were adjacent to Fred Burr Creek, which the court stated is not navigable-in-fact because it is not generally used for navigation, it is too shallow for navigation, and it is blocked by irrigation weirs, fences, and other obstructions. Nevertheless, the court concluded that the creek is subject to CWA jurisdiction as a tributary because it ultimately flows into waters that are navigable-in-fact. In this respect, the court found that Congress intended to reach any polluting activity if it impinges on any stream that flows primarily over the surface of the land and empties into a water that is at some point navigable-in-fact. The court further stated that the distance between the wetland and the navigable-in-fact water was of no moment because the upstream waters are ecologically capable of undermining the quality of the navigable-in-fact water. The court went on to find that Congress had authority under the Commerce Clause to regulate tributaries of waters that are a channel or potential channel of interstate commerce and that SWANCC does not suggest that federal legislation cannot regulate the quality of waters that flow across state lines and that are substantially involved in interstate commerce.

U.S. v. Phelps Dodge Corp., 391 F. Supp. 1181 (D. Ariz. 1975): Waters Involved - both surface and underground water, including dry arroyos

Ct. Rationale - "for the purposes of the [CWA] to be effectively carried into realistic achievement, the scope of its control must extend to all pollutants which are discharged into any waterway, including normally dry arroyos..." b/c "even [in] normally dry arroyos, ...water which might flow therein could reasonably end up in any body of water..."

10TH CIRCUIT

Quivira Mining Co. v. EPA, 765 F. 2d 126 (10' Cir 1985): Waters Involved - a small gully and creek and normally dry arroyos, as well as an unnamed tributary

Ct. Rationale - "it was the clear intent of Congress to regulate waters of the United States to the fullest extent possible under the commerce clause" and the CWA "was intended to regulate discharges made into every creek, stream, river, or body of water that in any way may affect interstate commerce."

Utah v. Marsh, 740 F.2d 799 (101 Cir 1984): Waters Involved- a lake located entirely within a state that is not capable of bearing interstate navigation but are otherwise used to sustain and foster interstate commerce

Ct. Rationale - the discharge of dredged or fill material into Utah Lake by plaintiff or others could well have a substantial economic effect on interstate commerce. Its waters are used to irrigate crops which are sold interstate commerce; it supports that State's most valuable warm water fishery which markets most of the catch out of state; it provides recreationists with opportunities to fish, hunt, boat, water ski, picnic, and camp, as well as the opportunity to observe, photograph, and appreciate a variety of bird and animal life. Such interstate movement of travelers has been held to be within the reach of the Commerce Clause. The lake is also on the flyway of several species of migratory waterfowl, which are protected under international treaties. We have carefully reviewed the navigability cases cited by the State are not persuaded that they limit Congress' power under the Commerce Clause to regulate activities affecting intrastate waters, where such activities or waters affect interstate commerce.

V 19 Jan 2001 Memorandum from EPA and DOA on SWNACC

United States Environmental Protection Agency
Office of General Counsel
Washington, D.C. 20460

United States Department of the Army
U.S. Army Corps of Engineers
Washington, D.C. 20314

19 JAN 2001

MEMORANDUM

SUBJECT: Supreme Court Ruling- Concerning CWA Jurisdiction over Isolated Waters

FROM: Gary S. Guzy
General Counsel
U.S. Environmental Protection agency

Robert M. Anders<~Pf
Chief Counsel
U. S. Army Corps of Engineers

TO- See Distribution

The purpose of this memorandum is to inform you of a significant hew ruling by the Supreme Court pertaining t6 the scope of regulatory jurisdiction under the Clean Water Act (CWA) and to inform you of what is and is not affected by this ruling. *Solid* Waste Agency

of Northern Cook-County v. U.S. Army Corps of Engineers, No. 99-1178 (January 9, 2001) ("SWANCC") involved statutory and constitutional challenges to the assertion of CWA jurisdiction over isolated, non-navigable, intrastate waters used as habitat by migratory birds.

Although the SWANCC case itself specifically involved section 404 of the CWA, the Court's decision affects the scope of regulatory jurisdiction under other provisions of the CWA's, including the section 402 NPDES program and the section 311 oil spill program. Under each of these sections, the Agencies have jurisdiction over waters of the United States." CWA § 502(7). Accordingly, the following discussion applies to any program that involves "**waters of the *United States***"1 as that term is used in the CWA and will be relevant to any federal, state, or tribal staff involved in implementing sections 402, 404, 31,11, and any other provision of the CWA which applies the definition of "waters of the United States."'

In the 5-4 decision, the Supreme Court held that the Corps exceeded its statutory authority by asserting CWA jurisdiction over "an abandoned sand and gravel pit in northern Illinois which provides habitat for migratory birds.' Slip op. at 1. The Court did not reach the question of "whether Congress could exercise such authority consistent With the Commerce Clause, U.S. Const., Art. 1, § 8, cl. V Slip op. at 1. it summarized its holding as follows: "We hold that 33 C.F.R. § 328.3(a)(3) (1999), as clarified and applied to petitioner's balefill site pursuant to the 'Migratory Bird Rule,' 51 Fed. Reg. 41217 (1986), exceeds the authority granted to respondents under § 404(a) of the CWA! Id. at 14 .2 Although the Court held that the Corps' application of §328.3(a)(3) was invalid in SWANCC, the Court. did not strike down §328.3(a)(3) or any other component of the regulations defining "waters of the United States."

While the Courts actual holding was narrowly limited to CWA regulation of a non-navigable, isolated, intrastate" waters based solely on the use of such waters. by migratory birds, the Court's discussion was wider ranging. For example, the Court clearly recognized the CWA`s assertion of jurisdiction over traditional navigable waters and their tributaries and wetlands adjacent to them. Slip op. at 6, 10. The Court also expressly declined to address certain other aspects of the scope of CWA jurisdiction. Slip op. at 10. As. a result, the Court's opinion has led to questions concerning the effect of the decision on other waters Within the definition of "waters of the United States" in agency regulations. Accordingly, this memorandum describes which aspects *of* the regulatory definition of 'waters of the United States" are and are not affected by *SWANCC.*

1. In light of the Court's "conclu[sion] that the 'Migratory Bird Rule' is not fairly supported by the CWA," slip op. 6, field staff should no longer rely on the use of waters or wetlands as habitat by migratory birds as the sole basis for the assertion *of* regulatory jurisdiction under the CWA.

2. As noted above, the Court's holding was strictly limited to waters that are a non-navigable, isolated, [and] intrastate.' With respect to any waters that fall outside of that category, field staff should continue to exercise CWA jurisdiction to the full extent of their authority under the statute and regulations and consistent with court opinions.

3. The Court did not overrule the *holding or rationale of United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985), which upheld the regulation of traditionally navigable waters, interstate waters, their tributaries, and wetlands adjacent to each. See id. at 123, 129, 139. Each of these categories is still considered "waters of the United States,' as is discussed below in paragraphs 4 and 6.

4. Because the Court's holding was limited to waters that are "non-navigable, isolated, [and] intrastate" the following subsections *of* the regulatory definition of waters of the United States, [3] are **unaffected** by SWANCC:

> "(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide" (see, e.g., _SWANCC, slip op. at 7-8);
>
> "(2) All interstate waters including interstate wetlands" (see, e.g., CWA section 303(a)(1); *Hotel y. Virginia Surface **Mining and Reclamation** Ass'n., 452 U.S. 264, 282 (1981);
>
> "(4) All impoundments of waters otherwise defined as waters of the United State s_ -under the definition [except subsection (a)(3) waters]." (implicit in CC, slip. op. at 6); SWANCC.
> "(5) Tributaries to waters identified in paragraphs (a)(1)[, (2), and] (4) of this section" (see, e.g., SWANCC, slip op. at 10);
>
> "(6) The territorial seas" (see CWA section 502(7)); and
>
> "(7) Wetlands adjacent to waters identified in paragraphs (a)(1)[(2), (4), (5), and] (6) of this section' (see, e.g., SWANCC, slip op. at 6; Riverside Bayview at 134-35, 139).4

5. The following subsections of the regulatory- definition- of-"waters of the United States" **are, or potentially are, affected** by SWANCC:

> "(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce ...

a. Waters covered solely by subsection (a)(3) [5] that could affect interstate commerce solely by virtue of their use as habitat by migratory birds are no 1,6nger considered "waters of the United States." The Court's opinion did not specifically address what other connections with interstate commerce might support the assertion of CWA jurisdiction over "non-navigable, isolated, intrastate waters" under subsection (a)(3). Therefore, as specific cases arise, please consult agency legal counsel.

b. The Courts opinion expressly reserved the question of what "other waters" were intended to be addressed by CWA S 404(g)(1) (regarding. state 404 programs). Factors not addressed in SWANCC may have a bearing on whether subsection (a)(3) may still be relied on as the basis for asserting CWA jurisdiction over certain "other waters! Jurisdiction over such "other waters" should be considered on a case-by-case basis in consultation with agency legal counsel. Factors that may be relevant to the analysis under 33 C.F.R. 328.3(a)(3) include, but are not remitted to, the following:

6. The Supreme Court's decision in SWANCC does provide an important new limitation on how and in what circumstances the EPA and the Corps can assert - regulatory authority under the CWA. However, this decision's limited holding must be interpreted in
light of light of

other Supreme Court and lower court precedents, unaffected by the SWANCC -decision, which precedents broadly uphold CWA jurisdictional authority. The following quotations from the Riverside Bayview decision are provided to remind EPA and Corps field offices that most CWA jurisdiction remains basically intact after the SWANCC decision.

a. The Supreme Courts Riverside Bayview decision (at 123, 139) upheld the legality of the basic provisions of the Corps' GWA jurisdictional regulation, which the Court described (at 129) as follows: "The [Corps and EPA jurisdictional] regulation extends the Corps' authority under Section 404 to all wetlands adjacent to navigable or interstate waters and their tributaries" 7

(1) With respect to waters that are isolated, intrastate, and non-navigable jurisdiction may be possible if their use, degradation, or destruction could affect other "waters of the United States," thus establishing a significant nexus between the water in question and other "waters of the United States;"

(2) With respect to waters that, although isolated and intrastate, are navigable jurisdiction may also be possible if their use, degradation, or destruction could affect interstate or foreign commerce (examples of ways the use, degradation or destruction of a water could affect such commerce are provided at 33 CFR 328.3(a)(3)(i) - (iii)).6

c. Impoundments of subsection (a)(3) waters, tributaries of (a)(3) waters, and wetlands adjacent to subsection (a)(3) waters should be analyzed on a case-by case basis in accordance with subparagraphs 5.a and 5.b immediately above. Such impoundments, tributaries and adjacent wetlands are also part of the " waters of the United States" if the waters they impound, are tributaries to, or are adjacent to are themselves "waters of the United States."

6. The Supreme Court's decision in SWANCC does provide an important new limitation on how and in what circumstances the EPA and the Corps can assert - regulatory authority under the CWA. However, this decision's limited holding must be interpreted in light of other Supreme Court and lower court precedents, unaffected by the SWANCC -decision, which precedents broadly uphold CWA jurisdictional authority. The following quotations from the Riverside Bayview decision are provided to remind EPA and Corps field offices that most CWA jurisdiction remains basically intact after the SWANCC decision.

a. The Supreme Courts Riverside Bayview decision (at 123, 139) upheld the legality of the basic provisions of the Corps' GWA jurisdictional regulation, which the Court described (at 129) as follows: "The [Corps and EPA jurisdictional) regulation extends the Corps' authority under Section 404 to all wetlands adjacent to navigable or interstate waters and their tributaries.

b. The Court in Riverside Bayview also stated, at 132-33, that:

> ... Section 404 originated as part of the Federal Water Pollution Control Act Amendments of 1972, which constituted a comprehensive legislative Attempt to restore and maintain the chemical, physical, and biological Integrity of the Nation's waters.' CWA§ 101, 33 U.S.C. § 1251. This objective incorporated a broad, systemic view of the goal of maintaining and improving water quality: as the House Report on the legislation put it, "the word 'integrity' . . . refers to a condition in which the natural structure

> and function of ecosystems is [are) maintained.... Protection of aquatic -ecosystems, Congress recognized, demanded broad federal authority to control, pollution, for '(W)ater moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source.' In keeping with these views, Congress chose to define the waters covered by the Act broadly.

c. In Riverside Bayview. at 133-134, the Court quoted with approval the following language from the preamble to the Corps' 1977 regulations:

> "The regulation of activities that cause water pollution cannot rely on ... artificial lines ... but must focus on all waters that together form the entire aquatic system. Water moves in hydrologic cycles, and the pollution of this part of the aquatic system, regardless of whether it is above or below an ordinary high water mark, or mean high tide line, will affect the water quality of the other waters within that aquatic system. . For this reason, the landward limit-of Federal jurisdiction under Section 404 must include any adjacent wetlands that form the border of or are in reasonable proximity to other waters of the United States, as these wetlands are part of this' aquatic system."

The Court went on to conclude, at 134, that: 1n view of the breadth of federal regulatory authority contemplated by the Act itself ... the Corps' ecological judgment about the relationship between waters and their adjacent wetlands provides an adequate basis for a legal judgment that adjacent wetlands may be defined as waters under the Act.'

d. In sum, the holding, the facts, and the reasoning of United States v. Riverside Bayview Homes continue to provide authority for the EPA and the Corps to assert CWA jurisdiction over, inter alia all of the traditional navigable waters, all interstate waters, and all tributaries to navigable or interstate waters, upstream to the highest reaches of the tributary systems, and over all wetlands adjacent to any and all of those waters.

Any questions not answered by this guidance should be addressed to legal staff-attorneys Cathy-Winer (EPA) at (202) 564-5494 or Lance Wood (Corps) at (202) 761-8556.

Footnotes

1.The SWANCC decision only addresses the scope of regulatory jurisdiction under the federal CWA. Therefore, the scope of regulatory jurisdiction over aquatic features under other federal statutes is not affected by this decision. In addition, the Clean Water Act explicitly provides that nothing in the Act "shall ... be construed. as impairing or in any manner affecting any right or jurisdiction of the States with respect to the Waters (including boundary waters) of such States." 33'U.S.C. § 1370. Therefore, nothing in the SWANCC decision * alters. the extent of State (or tribal) jurisdiction over aquatic features under State (or tribal) law.

2. 33 C.F.R. § 328(a)(3) describes a subset of waters of the United States: 'All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce

The "Migratory Bird Rule" refers to an explanation, in the preambles- to1986 Corps regulations and 1988 EPA regulations, that Waters that are or may be used as. habitat for migratory birds are an example of waters whose use, degradation, or destruction could affect interstate or foreign commerce and therefore, are 4waters of the United States." 51 Fed. Reg. 41217 (1986); 53 Fed. Reg. 20765 (1988).,

3.Different CWA regulations contain slightly different formulations *of* the definition. For simplicity's sake, this memo refers to the Corps' version at 33 C.F.R. § 328.3(a). Other versions appear at, e.g., 40 CFR 110. 1, 112.2, 116.3, 1,17.1, 122.2, 230.3(s), and 232.2.

4. Adjacent" is defined by regulation as bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are 'adjacent wetlands.' " 33 C.F.R. § 328.3(d). This definition was approved in Riverside Bayview and is not undercut by SWANCC.

5. Subsection (a)(3) is intended to cover waters that are not covered by the other subsections of 328.3(a).

6. An example of an intra-state lake that is "isolated" (i.e., not part of the tributary system of traditional navigable waters or interstate waters) but which might -reasonably be considered "waters of the United States" under subsections (a)(1) or (a)(3) is the Great Salt Lake in Utah. - That "isolated"- lake is navigable-in-fact (see United States v. Utah ' 403 U.S. 9 (1971)), and has substantial connections with **interstate commerce** (see, e.9 ., Hardy Salt Co. v. Southern Pacific Transportation Co., 501 F. 2d 1156 (11 01h Cir. 1974)).

7. The one specific part of the Corps' CWA jurisdiction that the Court did not reach in Riverside Bayview is related to "wetlands that are not adjacent to bodies of open water" under 33 C.F.R. 328.3(a)(2) or (3). Riverside Bayview, 474 U.S. at 131., n. 8..,

VI "Inside EPA Weekly"

June 11, 2001

EPA, CORPS STRUGGLING TO DEFINE FEDERAL JURISDICTION OVER WETLANDS

The Bush administration is struggling to define the scope of federal Clean Water Act jurisdiction over wetlands after the Supreme Court ruled earlier this year, in Solid Waste Agency of Northern Cook County (SWANCC) v. Army Corps of Engineers, that the agencies could not use current justifications to regulate "isolated waterbodies.

"Our efforts are being stymied because there are a lot of heavy duty policy issues and legal issues," one source says, adding that no decision will be made until key political appointees in several agencies are nominated and confirmed by the Senate.

The new definition, to be included in guidance to be issued by EPA and the Corps later this year, will present the new scope of federal jurisdiction over wetlands under section 404 of the Clean Water Act, as well as federal jurisdiction over "tributaries" and "adjacent" waterbodies, sources say. Sources close to the issue say the guidance will be a combination of site-specific determinations that clearly outline jurisdiction for certain waterbodies, and also general criteria for Corps field officials to determine whether

the waterbody falls under state or federal purview. "There are just so many 'what if situations" that require EPA to approach the two-fold method in the guidance, one source says.

Defining the agencies' jurisdiction is critical in the short-term because without it, the agencies may be issuing inconsistent decisions allowing wetlands in some areas to be filled, while similar wetlands in other areas are protected. In the interim, Corps officials ordered their field offices to hold off on "developing local practices for determining the extent of Clean Water Act Section 404 regulatory jurisdiction and from utilizing local practices that were not in effect prior to the SWANCC decision."
"The court's decision in SWANCC effectively precludes the assertion of Section 404 jurisdiction over certain isolated waters. This has necessarily focused increased attention on the geographic extent of section 404 jurisdiction, and on the potential 'tributary' status of waters, and the potential 'adjacent' status of wetlands, " the Corps' memo says.

The memo adds that these issues are subject to ongoing interagency review and the prohibition on new practices is being imposed to "avoid compounding existing inconsistencies among [Corps] Districts, and to minimize complications affecting the development of national policy. Relevant documents are available on our web site, InsideEPA.com <httj2:Hdenixl:iwpdenix@www.InsideEPA.com/>.

One state source notes that the agencies' struggle to define their jurisdiction comes as some Corps field offices have started to offer "different interpretations" of the Supreme Court's ruling. The source says inconsistent permit decisions from Corps field offices could wreak havoc because those offices' jurisdiction is determined on a watershed basis and not by state boundaries. As a result, some states may have as many as five separate Corps field offices, the source says.

But defining federal agencies' new jurisdiction is critical not only to ensure consistent wetlands permit decisions from Corps field offices, but also because EPA officials have identified the new guidance as one of two top wetlands priorities in the aftermath of the high court's decision.

John Gooden, chief of EPA's wetlands and aquatic resources branch, told a conference sponsored by the American Bar Association May 31 that in the aftermath of the SWANCC decision, EPA officials are seeking to "clarify" program jurisdiction and "improve" state wetlands mitigation successes as the agency's two top wetlands priorities.

Gooden also says EPA and Corps officials will also issue new guidance to states to assist them in their new role regulating isolated wetlands. The guidance will likely include the current ecological factors the Corps considers in issuing wetlands permits, according to state sources.

In the SWANCC ruling, the Supreme Court ruled Jan. 9 that the Corps could not justify its Clean Water Act authority over isolated wetlands on the basis of the so-called "migratory bird rule." That rule says that because migratory birds utilize isolated wetlands, those wetlands are part of interstate commerce and can be regulated under the Commerce Clause.

The court's decision has prompted widespread fears among state officials and environmentalists who say that large tracts of wetlands previously subject to federal jurisdiction will no longer be subject to federal regulation. Some state officials, who claimed a significant number of federally regulated wetlands would not longer be subject to regulation, were especially fearful because without the federal authority, they would no longer be able to meet water quality standards. As a result, many states have begun efforts to create new wetlands authorities or boost existing authorities to ensure they could regulate wetlands no longer subject to federal jurisdiction.

However, Justice Department officials have filed a series of court briefs over the last week arguing for a narrow interpretation of the SWANCC decision, raising fears among industry officials that federal

officials may seek to find a new justification to regulate isolated water bodies. The DOJ briefs also suggest a broad definition that wetlands that are "hydrologically connected" to navigable waters remain under federal jurisdiction (see related story).

Those arguments appear to be consistent with a Jan. 19 memorandum from former EPA General Counsel Gary Guzy raising fears over EPA's authority to regulate point source discharges into isolated waters, while at the same time offering the same narrow interpretation of the high court's wetlands decision that DOJ used in its briefs. State officials say they would welcome such a broad definition and urged EPA and the Corps to make a similarly broad interpretation of federal authority because the states do not have the funding to operate their own programs. "We hope [EPA and the Corps] don't take a highly conservative approach" in interpreting their jurisdiction, one state source says. But state sources say it is imperative that EPA and the Corps issue a speedy guidance because several states are holding back on moving forward with state wetlands legislation until the federal agencies issue the guidance.

Currently, there are only 16 states with the necessary statutes in place to regulate isolated wetlands, including Wisconsin, Michigan and New Jersey. At least five other states -South Dakota, Oklahoma, Delaware, Ohio and South Carolina - are reportedly in the process of drafting new legislation to create the authority.

The Corps' memo comes after key House Republicans urged EPA Administrator Christine Todd Whitman and Acting Army Secretary Joseph Westphal earlier this year to issue interim guidance aimed at "supplanting" the memo issued by Guzy, the former EPA general counsel.

In a March 14 letter, House Transportation & Infrastructure Committee Chairman Don Young (R-AK), along with Rep. John Duncan (R-TN), called on the administration to issue "interim guidance" that "identifies gray areas that are under discussion within the Administration about which there will be further administrative action (e.g the use of alternative Commerce Clause connections, the definitions of 'tributary' and 'adjacent.')"

"We understand that Corps and EPA staff have been meeting since the memo was issued to try to provide further guidance on this important decision, and we also recognize that Corps field staff need guidance in order to make jurisdictional determinations every day. But we also believe that the decision how to respond to this very important Supreme Court decision is a delicate policy judgment that should be made by policy level officials designated by President Bush," the letter says.
As part of the response, Whitman told Young in an April 26 letter that the agencies were working to ensure a consistent response from the Bush administration.

DOJ BRIEFS ARGUE FOR NARROW VIEW ON HIGH COURT'S WETLANDS RULING

The Justice Department (DOJ) has begun urging federal courts to adopt a narrow interpretation of the Supreme Court's recent decision barring federal jurisdiction over isolated" wetlands and other waterbodies under the Clean Water Act, prompting concern among some industry lawyers that the Bush administration may look for new reasons to justify federal jurisdiction over these wetlands.

The issue of how to interpret the high court's decision is also raising new litigation questions about the definition of "adjacent" wetlands, with the DOJ beginning to argue for a broad definition that wetlands that are "hydrologically connected" to navigable waters and should remain under federal jurisdiction. Industry lawyers and environmentalists say that litigation over the definition of adjacent wetlands may also have to be decided by the Supreme Court.

DOJ has been urging courts to adopt the narrow view of the high court's ruling as the Bush administration is struggling to develop a new guidance to define federal jurisdiction (see related story).

In Solid Waste Agency of Northern Cook County (SWANCC) v. Army Corps of Engineers earlier this year, the Supreme Court limited the federal agencies' authority to justify regulating "isolated" waterbodies under the Clean Water using the so-called "migratory bird rule." The ruling has prompted widespread fears among state officials who say that without federal jurisdiction, they will be forced to regulate development of these wetlands in order to maintain compliance with water quality standards. Led by Wisconsin, a number of states have begun creating new authorities, or boosting existing authorities, to regulate these waterbodies (Inside EPA, May 11, p. 3) But in a series of briefs filed in federal district and appeals courts over the past two weeks, DOJ lawyers argue that SWANCC only affects the agencies' authority to use the so-called "migratory bird rule" to assert jurisdiction over wetlands. Relevant briefs are available on our web site, InsideEPA.com <http://denix 1:iwpdenix @www.InsideEPA.com/>.

In one case, FD&P Enterprises, Inc. v. Army Corps of Engineers, currently pending before the U.S. District Court for the District of New Jersey, plaintiffs' lawyers are arguing that the SWANCC decision prohibits federal agencies from claiming jurisdiction over wetlands that are not directly connected to navigable waters. In this case, FD&P Enterprises, a real estate developer, is asserting -- based on SWANCC -- that Corps officials lack jurisdiction over wetlands owned by the company because they are geographically distant from navigable waters -in this case, the Hackensack River.
But in a May 30 brief, DOJ lawyers are arguing that the SWANCC decision was based on a narrow argument that agencies could not use the migratory bird rule to justify continued jurisdiction over isolated wetlands. The brief argues that federal agencies continue to retain jurisdiction over wetlands that are "adjacent" to navigable waters.

"Specifically, the Court in [SWANNC] considered and denied the federal agencies' contention that Clean Water Act jurisdiction extended to non-navigable, isolated, intrastate waters whose connection to interstate commerce is premised solely on their use as habitat for migratory birds," DOJ lawyers said. "FD&P incorrectly claims that [SWANCCI limits Clean Water Act jurisdiction to traditional navigable waters and wetlands that directly border them," the DOJ brief argues. " [SWANCC] did not alter the long-standing precedents that the Clean Water Act regulates waters that are hydrologically connected to traditional navigable waters."

In the past week, DOJ lawyers also argued before the U.S. Court of Appeals for the 5th Circuit that the court mistakenly expanded the scope of the SWANCC decision to limit the authority of EPA and the Corps to regulate "intermittent" water bodies. In this case, Rice v. Harken Exploration Company, a three-judge panel ruled in late April that, based on the Supreme Court's holding in SWANCC, EPA does not have authority under the Clean Water Act and the Oil Pollution Act to regulate discharges into waterbodies that only exist intermittently. The ruling had raised concerns that federal courts were beginning to adopt broad interpretations of SWANCC in order to limit federal jurisdiction.
But DOJ lawyers May 29 filed an amicus brief urging the entire 5th Circuit to review the court's earlier decision, arguing that the ruling was inconsistent with SWANCC. "To the extent that [the ruling] implies that after SWANCC, some tributaries are no longer 'waters of the United States' (e.g. because they flow intermittently or are geographically remote from a navigable-in-fact water body), it is based on an erroneous understanding of SWANCC," the brief states.

The DOJ brief further argues that, "all creeks and streams that are tributaries of navigable-in-fact waters are 'sufficiently linked' to such navigable waters to be considered 'waters of the United States,' and nothing in SWANCC calls that basic principle into question."

Similarly DOJ lawyers were scheduled June 6 to file an amicus brief before the U.S. Court of Appeals for the 9th Circuit, arguing that federal agencies retain jurisdiction over a pond that the plaintiff claims is beyond the federal reach. A federal district court in California had earlier ruled, in San Francisco Baykeeper v. Cargill Salt Division, that on the basis of the migratory bird rule, the plaintiffs had standing under the Clean Water Act's citizen suit provisions to bring a third party lawsuit against a permit holder for alleged permit violations. But the permit holder, Cargill Salt, argued that SWANCC did not allow the Baykeeper to bring suit under the Clean Water Act.

But DOJ lawyers argued in a June 6 amicus brief that SWANCC only affects Clean Water Act jurisdiction using the migratory bird rule. In this case, other "bases of jurisdiction" exist to allow the environmentalists' suit to proceed.

Environmentalists reacted favorably to the DOJ briefs. "It's a step in the right direction," one environmentalist says. "Hopefully DOJ and the regulatory agencies will continue to look at SWANCC and give it a proper and narrow reading given that Congress intended the Clean Water Act to be very broad."

Several environmentalists also noted that the briefs appear to be consistent with guidance issued by former EPA General Counsel Gary Guzy just before President Clinton left office.

Industry lawyers agree that DOJ in its briefs suggests that the administration may narrowly interpret the SWANCC decision, but they argue that the briefs use selective portions of the ruling to make their arguments. "[DOJ] is being pretty selective in the parts of SWANCC that it reads ... this is a far cry," one source says.

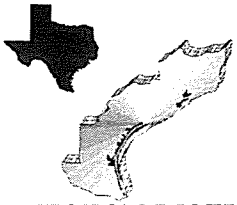
The source argues that in SWANCC, the Supreme Court relies on a 1974 interpretation by the Corps of the Clean Water Act concluding that jurisdiction extends only to waterbodies capable of use for transportation or commerce. The industry source charges the DOJ briefs selected only portions of the SWANCC ruling to justify their arguments that the holding was limited, but did not include portions dealing with the Corps' 1974 interpretation. By narrowly interpreting the ruling as only applying to the use of the migratory bird rule, the government is "leaving its options open" to find other ways to regulate isolated wetlands, the source says. -- Patrick Lane

Casey Cutler
Chief, Compliance Section
Regulatory Branch
Galveston, District
Tel. (409) 766-3947
Email – casey.k.cutler@usace.army.mil

Education
Texas A&M – BS Marine Sciences (1976)
University of Houston – MS Environmental Management (1989)

Experience-
Employed by the Galveston District since 1980 as an oceanographer, physical scientist and wetland biologist. Currently employed as the Section Chief of the Compliance Section managing Project Managers that are involved in delineating wetlands and enforcement actions involving violations of Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 along the upper Texas Coast.

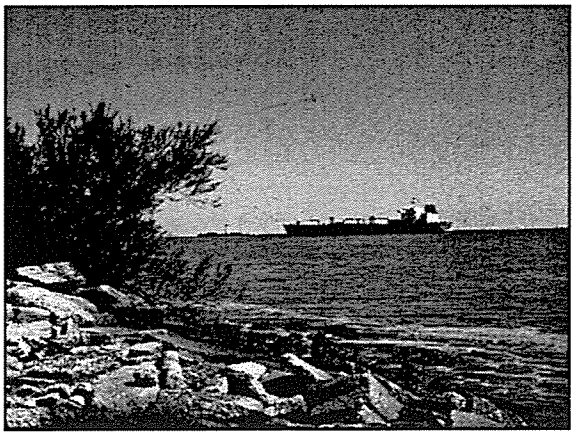
U.S. ARMY
CORPS OF ENGINEERS



GALVESTON DISTRICT

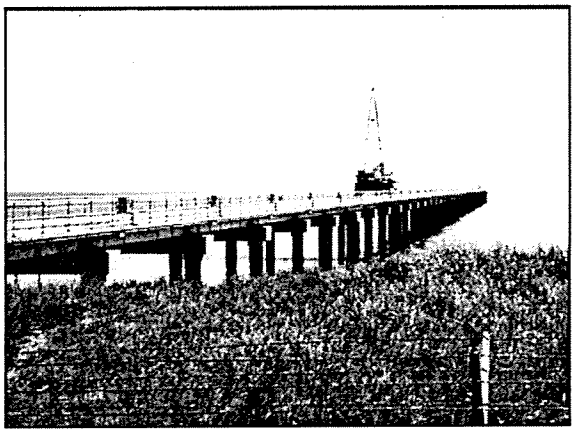
Regulatory

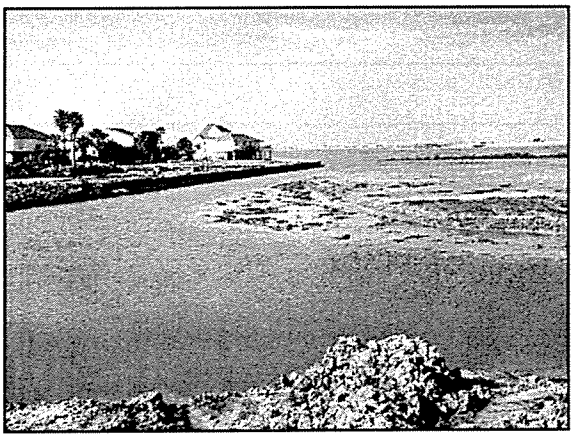
Program



Rivers and Harbors Act of 1899

Sec.10 - Regulates structures and/or work in *navigable waters of the U.S.*

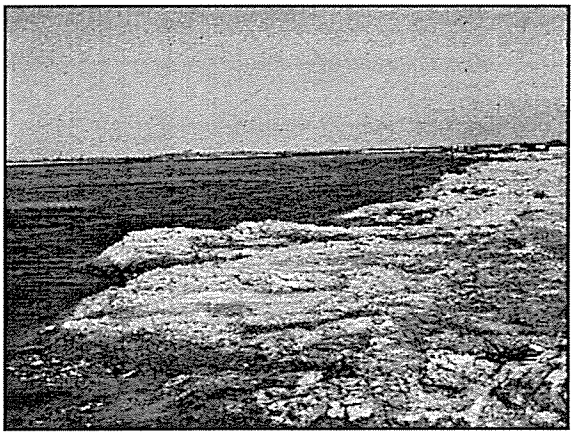


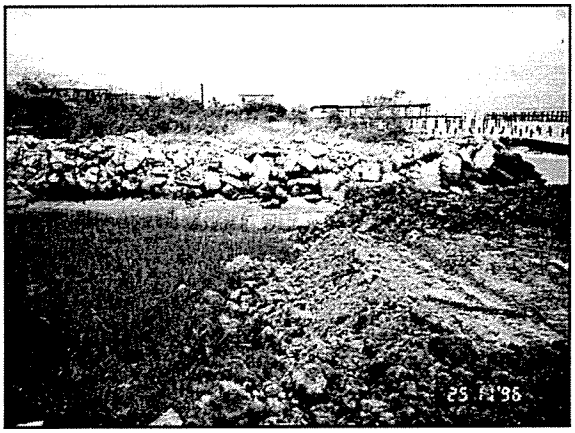


Clean Water Act

Sec. 404 - Regulates the discharge of dredged or fill material into *waters of the U.S., including wetlands*







Discharge of Dredged Material

the use of mechanized earth-moving equipment to landclear, ditch, channelize, in-stream mine, etc. waters of U.S. results in a discharge of dredged material unless project-specific evidence shows it is only incidental fill

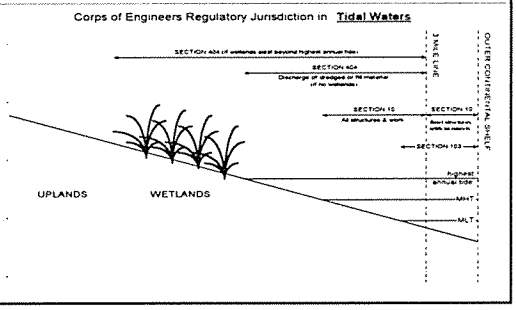


Geographic Jurisdiction
Section 404 Clean Water Act

- "waters of the United States, including the territorial seas" plus
- their tributaries and adjacent wetlands and isolated waters where the *use, degradation or destruction of such waters could affect interstate or foreign commerce.*

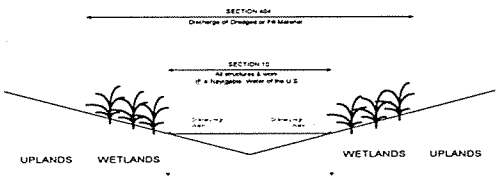
Sections 10 & 404

Corps of Engineers Regulatory Jurisdiction in Tidal Waters



Sections 10 & 404

Corps of Engineers Regulatory Jurisdiction in Fresh Waters



Definition of Wetlands

Areas inundated and or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions

What Makes A Wetland?

- Hydrology (Water)
- Hydrophytic Plants (Plants Adapted for Wet Conditions)
- Hydric (Wet) Soils



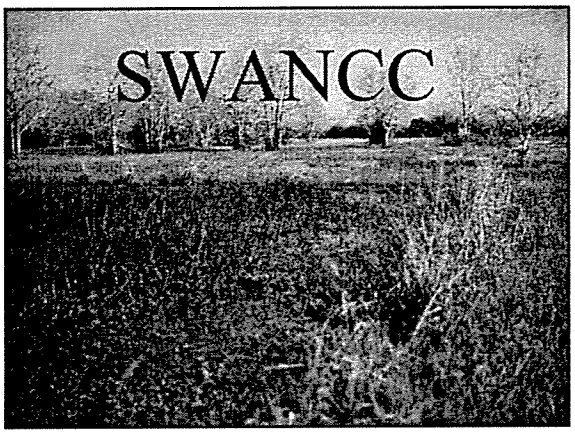






Wetland Functions

- Flood retention
- Improve water quality
- Erosion protection
- Filter water-borne pollutants
- Nursery habitat for fish and wildlife
- Produce nutrients and detritus



Case History

- Petitioner- Solid Waste Agency of Northern Cook County (SWANCC)
- Proposed to develop a disposal site for nonhazardous solid waste on a 533-acre tract.
- Subject tract contained a sand and gravel mining operation which was abandoned in 1960.
- The site developed natural conditions with seasonal ponds and successional stage forest.

- SWANCC obtains proper state permits

  - COE initially concludes that no jurisdiction is present due to the lack of wetland vegetation.
  - Illinois Nature Preserve Commission informs the Corps of migratory bird use - Due to 1986 Migratory Bird Rule, Corps claims jurisdiction.
  - SWANCC permit denied by Corps based on practicable alternatives, risk to drinking waters supply, and area-sensitive species.

Supreme Court Ruling

- a 5-4 decision
  - Corps exceeded statutory authority by asserting CWA jurisdiction of the abandoned pit.
  - Congress did not intend to regulate waters of the United States based on the Migratory Bird Rule, as established by in 1986 preamble - (waters that are or maybe used as habitat for migratory birds as the nexus of interstate commerce.)

- The decision did not strike down any other component of the regulations defining waters of the United States. (U.S. v Riverside Bayview Homes)

  - did not specifically address other connections with interstate commerce to support the assertion of CWA jurisdiction over nonnavigable, isolated, interstate waters.
  - The decision states waters that could affect interstate commerce solely by virtue of their use as habitat by migratory birds are no longer considered waters of the United States.

Conclusions

- Field staff should no longer use migratory birds usage of a water as the basis for assertion of jurisdiction over isolated wetlands.
- Wetlands must have a surface connection (commerce nexus) of some type to a navigable water to be considered jurisdictional
- Additional guidance from HQ is forthcoming.

Questions?

Visit-

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Criminal Liability Concerns to the Environmental Professional –

I Should Have Known Better

by

Edwin J. Tomko and Peter K. Wahl
Akin, Gump, Strauss, Hauer & Feld, L.L.P.

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Criminal Liability Concerns to the Environmental Professional –

I Should Have Known Better

by

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Introduction

When corporations and the people working for them fail to comply with environmental laws, they are not only vulnerable to civil and administrative penalties, but increasingly to criminal sanctions as well. Criminal liability for environmental crimes was rare prior to 1970, and other than the Environmental Protection Agency ("EPA"), many federal law enforcement agents were not even aware that environmental crimes existed. A different reality exists today. Currently, a broad range of federal agencies employ criminal investigators with environmental expertise. These agencies include the EPA Criminal Investigation Division, the Federal Bureau of Investigation, the U.S. Department of Defense Criminal Investigative Service, the Naval Criminal Investigative Service, the United States Coast Guard, the United States Department of Transportation and the United States Custom Service. Criminal enforcement of environmental laws appears to be here to stay. While the most recently proposed presidential budget proposes to drastically reduce funding of federal civil enforcement, funding for criminal enforcement is expected to increase.

This paper provides an overview of environmental criminal liability. It discusses the history of environmental crimes, environmental statutes comprising most criminal charges, and some recent examples of criminal enforcement of environmental laws in Texas that demonstrate the realities of environmental crimes and prosecution. Hopefully, after digesting this material you will know better.

Historical Overview

Criminal enforcement of environmental laws is a phenomena developed primarily in the last three decades. With the passage of the Clean Air Act Amendments in 1970 and the Clean Water Act in 1972, Congress established steeper criminal penalties for environmental crimes and provided federal prosecutors with real power to enforce environmental laws criminally.[1] In 1982, the Environmental Crimes Section was added to the Lands Division of the Department of Justice. This Section continues its separation from the rest of the Department of Justice's Criminal Division as a branch of the Environmental and Natural Resources Division.

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[1] *See* Jane F. Barrett, *Criminal Enforcement of Federal Environmental Laws* at 1, citing Pub. L. No. 91-604, 84 Stat. 1676 (1970); see also *Coalition for Clean Air v. Edison Co.,* 971 F.2d 219, 221 (9th Cir. 1992).

The government's efforts to enforce criminal liability provisions of environmental laws increased dramatically again when Congress passed the Pollution Prosecution Act of 1990. Prior to this Act, the EPA had only 47 criminal investigators. The Pollution Prosecution Act required the EPA to hire 200 additional investigators to focus solely on environmental criminal investigations.[2] Not surprisingly, EPA referrals of criminal cases to the Justice Department have substantially increased from 20 in 1982 to 107 in 1992 and to 278 in 1997.

The theoretical objectives in prosecuting crimes is both punishment and deterrence. To achieve these goals, the government commonly relies upon fines and other economic sanctions. Environmental crimes appear to be handled somewhat differently than other crimes, in large part because they are so commonly tied to business interests. Many courts have reasoned that fines in this context have lost their deterrent effect because such penalties could simply be considered a cost of doing business. Joseph Block, former Chief of the Department of Justice Environmental Crimes Section, has notably stated that "[i]ncarceration is the one cost of doing business that you can't pass on to the consumer." Thus, the trend in penalizing environmental wrongdoing has shifted to include both fines and imprisonment.

The threat of imprisonment is a hollow threat to the corporation but not to the people working for it. As the noted legal scholar, John Coffee, notes, corporate punishment is a challenge because artificial business entities have "no soul to damn or no body to kick." The souls and bodies most commonly used to fill this void are those of corporate directors, officers, managers, and employees. In 1990, 80% of the government's prosecution was focused on companies in violation of environmental standards, and only 20% focused on individuals. By 1998, the statistics virtually flip-flopped. Approximately 74% of the government's prosecution was focused on individuals in the course of employment, and only 26% focused on offending companies. Penalties associated with environmental crimes currently appear broadly distributed between fines and imprisonment to both individuals and companies. In 1997, fines for environmental crimes in one year reached $169.3 million, and 221 defendants were sentenced to 1,116 months in prison.[3]

Congress remains serious about prosecuting criminal acts against the environment and imposing stiff penalties on corporations and individual employees. The last amendments to each major environmental statute have included new criminal provisions and strengthened existing ones. For example, in 1987, Congress amended the criminal provision of the Clean Water Act, increasing the potential period of imprisonment for violations from 1 year to 3 years. Congress has also added a provision in the Resource Conservation and Recovery Act ("RCRA"), the Clean Water Act, and the Clean Air Act for "knowing endangerment" imposing a maximum penalty of 15 years imprisonment

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[2] *See* 42 U.S.C. §§ 4321-4370(d).

[3] *See* Kevin A. Gaynor & Thomas R. Bartman, *Criminal Enforcement of Environmental Laws*, 10 COLO. J. INT'L. ENVTL. L. & POL'Y. 39, 40 (citing Environmental Protection Agency, Press Release, EPA Set the Records for Enforcement While Expanding Program for Industry to Disclose and Correct Violations (Dec. 22, 1997) and Environmental Protection Agency, Enforcement & Compliance Assurance Accomplishments Reports FY 1996, at A4 (May 1997)).

and one million dollars in fines for organizations who knowingly endanger lives. The November 1990 amendments upgraded penalties for existing offenses by giving felony status to offenses currently treated as misdemeanors. Amendments to the Clean Water Act and Clean Air Act have also largely eliminated the *mens rea* requirement generally characteristic of criminal conduct by adding a new provision imposing criminal liability for "negligent endangerment."[4]

In addition to substantive statutory changes, the Federal Sentencing Guidelines have changed greatly the landscape of environmental criminal cases. The Sentencing Guidelines establish a predetermined range of penalties that are applicable to federal crimes, as applied to entities, in its "Organizational Guidelines" and as applied to natural persons in its "Individual Guidelines." The Sentencing Guidelines operate by assigning a "base offense level" to crimes accompanied by specific grounds for upward or downward departure in the formulation of a range of penalty. The establishment of such predetermined sentencing has decreased the discretion previously afforded to federal judges in sentencing of individual defendants. The Sentencing Guidelines also have the potential for stringent results since once an environmental crime has been determined to have occurred, a fairly rigid penalty will result, even in cases involving no environmental injury.[5]

Conspicuously absent from the Sentencing Guidelines for Organizations is any reference to environmental statutes. Thus far, the U.S. Sentencing Commission has only been able to promulgate rules relating to organizations and environmental crimes that address restitution, probation, and fines.[6] Several commentators have concluded that this void in the Sentencing Guidelines is not an indication that such guidelines are not needed, but rather, cite "the Commission's concern regarding the complexity of the issues raised, in the environmental arena and its unwillingness to make specific pronouncements without further deliberation."[7] It is apparent that some Commission Members and commentators feel the need to include financial penalties in the Organizational Guidelines for environmental crimes and that these penalties should be particularly harsh. Unsuccessful efforts made in 1993 and 1994 to draft sentencing guidelines for companies guilty of environmental crimes included a concerted effort to punish environmental offenses more severely than many other crimes.[8] In an apparent effort to balance the scales, the government has offered some relief from the environmental criminal regime in instituting voluntary disclosure programs to encourage full and open disclosures of departures from environmental standards at the same time offering penalty mitigation. We will address this program later in this paper.

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[4] *See* 33 U.S.C. § 1319(c); 42 U.S.C. § 7413(c)(4).
[5] Attachment A is a recitation of the application of the Federal Sentencing Guidelines.
[6] *See* U.S. Sentencing Commission, Guidelines Manual 2 (West ed. 1993).
[7] *See* DONALD A. CARR, *ET AL.*, ENVIRONMENTAL CRIMINAL LIABILITY 329 (1995) (citing Ilene H. Nagel & Winthrop M. Swenson, *The Federal Sentencing Guidelines for Corporations: Their Development, Theoretical Underpinnings, and Some Thoughts About Their Future*, 71 WASH. U. L.Q. 205, 256 (1993)).
[8] See Kevin A. Gaynor & Thomas R. Bartman, *Criminal Enforcement of Environmental Laws*, 10 COLO. J. INT'L. ENVTL. L. & POL'Y. 39, 40 (citing Kevin A. Gaynor & Thomas R. Bartman, *Here's the Stick, But Where's the Carrot: The Draft Environmental Sentencing Guidelines*, 8 TOXICS L. REP. (BNA) 898-902 (Jan. 5, 1994)).

Statutory Overview

Seven federal environmental statutes have the potential to form the basis of environmental criminal prosecutions. Of these seven, prosecutions under RCRA, the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), the Clean Water Act, and the Clean Air Act are the most common.

The Resource Conservation and Recovery Act

The largest number of prosecutions under the environmental statutes involve the illegal transportation, storage, or disposal of hazardous waste.[9] RCRA was first passed by Congress in 1976, and later amended in 1980, 1984, and 1988. It is the primary statute regulating the handling and management of hazardous waste and requires the tracking of hazardous waste from generation to disposal (i.e., "cradle to grave"). Tracking is accomplished through a system of manifests and permits. The generator of hazardous waste must notify the EPA of the generated waste, obtain an identification number, and arrange for proper disposal of the waste. The transporter follows a similar manifest system, accounting for the hazardous waste from the time it is taken from the generator until it is delivered to the disposal site. The RCRA disposal site (defined as any facility that treats, stores, or disposes of hazardous waste) is required to obtain a permit documenting that it abides by RCRA's precise standards for the handling of hazardous wastes.[10]

Failure to comply with RCRA can result in administrative, civil, or criminal penalties.[11] Knowingly transporting hazardous waste to a facility that does not have a permit, knowingly treating, storing, or disposing of hazardous waste without having a permit, or knowingly disposing of hazardous waste in violation of a permit, condition, or applicable regulation, constitutes a crime under RCRA. Any of these violations are felonies subject to penalties up to a maximum of five years imprisonment per count and $50,000 in fines per day of violation. The penalties are doubled for second convictions.[12]

Additionally, persons regulated under RCRA who knowingly file documents containing materially false statements, knowingly destroy, alter, or conceal reports required under the law, knowingly transport hazardous waste without a manifest, or who knowingly treat, store, or dispose of used oil without having obtained a permit or in violation of a permit or applicable regulation, are subject to an additional two years imprisonment and an additional $50,000 fine per day of violation. In cases of second convictions, these penalties are also doubled.[13]

A violation of any RCRA provision by a person who knowingly places another person in imminent danger of death or serious bodily injury can subject the violator to a

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[9] *See id.* at 42.
[10] *See* 42 U.S.C. § 6928(d)(4)-(7).
[11] *See id.* § 9628(g).
[12] *See id.* § 9628 (d).
[13] *See id.*

maximum of fifteen years imprisonment and $250,000 in fines. Organizations may be fined a maximum of one million dollars for knowingly endangering another person.[14]

The Comprehensive Environmental Response, Compensation and Liability Act

CERCLA was enacted in 1980 and, like RCRA, focuses on hazardous and toxic waste. CERCLA allows the EPA to respond to releases or threatened releases of hazardous waste. The statute allows the EPA, and also third parties, to pay for the cleanup of hazardous waste sites and later recover cleanup costs from the responsible agencies.[15]

CERCLA imposes sanctions for the failure to notify the government of releases of hazardous substances above a certain threshold (a "reportable quantity"). A person in charge of a vessel or facility who does not notify the government of release faces up to a three-year prison sentence and significant fines. These sanctions are commonly applied in situations where a disposal of hazardous wastes in violation of RCRA has occurred. A CERCLA violation may also accompany a RCRA violation when the individual or corporation fails to notify the EPA of a release that falls under CERCLA. CERCLA violations also include the failure of a facility owner or operator to notify the government of its existence and the failure of facility owners and operators to keep accurate records.[16]

The Clean Water Act

The Clean Water Act requires a permit for the discharge of any pollutant into U.S. waters. Those who knowingly discharge pollutants without a permit or in violation of a permit may face misdemeanor penalties, normally up to a one-year prison sentence and/or a $25,000 fine for each day of violation.[17] The Clean Water Act also provides for felony penalties of three years imprisonment and fines from $5,000 to $50,000 per day of violation. Violations involving "knowing endangerment" can result in fines up to $250,000 and fifteen-year prison sentences. Moreover, like RCRA, the penalties double for second convictions. Like CERCLA, the Clean Water Act requires a person in charge of a vessel or facility from which a hazardous substance is released to report the release.[18] Failure to report a release can result in a maximum five-year prison sentence and $10,000 per day fine for each day the release is not reported.[19]

The Clean Air Act

The Clean Air Act was designed by Congress to reduce air pollution by regulating toxic and automobile emissions. The Act was passed in 1970 and significantly amended in 1990 to enhance enforcement and compliance. The statute now includes a maximum

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[14] *See id.* § 9628(e).
[15] *See id.* § 9607.
[16] *See id.* § 9603.
[17] One court has held that an individual discharging waste into a navigable stream was not a "point source" under the definition of discharge in the Clean Water Act.
[18] *See id.* § 1319(c).
[19] *See id.* § 1321.

felony penalty of five years imprisonment and significant fines for knowing violations of requirements, prohibitions, and orders specified in the act. A violator may face up to a two-year prison sentence and significant fines for filing false material statements or for tampering with monitoring devices. The penalties for knowing endangerment include up to fifteen years imprisonment and fines up to one million dollars. In addition, the Clean Air Act incorporates the offense of negligent endangerment. Those who violate the negligent endangerment provision are subject to a substantial fine and up to one year in prison.[20]

Application of Fraud Statutes to Environmental Violations

Generic fraud statutes have been prosecution mainstays for over a century. Since many companies that provide environmental services do so for a fee, and most industries that create chemical by-products have reporting responsibility, two specific fraud statutes have been used or alleged in what are identified as environmental investigations and prosecutions.

Mail Fraud [18 U.S.C. § 1341]

Fraud statutes do not come any more open-ended than the Mail Fraud Statute. In order to win a conviction the prosecution must prove, beyond a reasonable doubt, that the defendants devised or intended to devise a scheme or artifice to defraud and used the United States Postal Service or a private or commercial interstate carrier to receive and/or deliver a document in furtherance of the scheme. The purpose of the scheme can be anything as long as these elements can be proven. The gravamen of a mail fraud allegation is the attempt to deprive someone of property through misrepresentation of facts and/or the omission of facts. The purpose of the scheme is to get money or property by trickery or deceit.

The government has used mail fraud in situations where it alleges that the proper protocol, method, or procedure was not followed by an individual or company engaged in environmental testing or related areas, and that the customer was billed for the service that was not provided. This is an important distinction from the environmental statutes that at least require some activity that can have an environmental impact. The mail fraud allegations tend to focus on much more technical aspects of EPA, state or private industry rules, regulations, procedures, methods, protocols, and certifications.

The standard of proof for mail fraud appears to be high. The government must technically prove both that each defendant was a knowing and willful participant in the scheme and prove that the misrepresentation or concealment was a material fact. There is significant case law, however, upon which the prosecution may rely to allow evidence that substantially lowers the bar to conviction.

First, intent to defraud may be inferred from the totality of the circumstances and need not be based upon direct evidence. Conviction can be based exclusively on circumstantial evidence.

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[20] *See id.*

Second, impression testimony of the victim is admissible to show how the victims perceive they were misled by the defendants.

Third, where the false representations are directed to the quality, adequacy or price of the goods themselves, the fraudulent intent is deemed to be apparent because the victim is placed into a position to bargain without all of the essential facts.

And finally, factors admissible to prove specific intent include excessive profits and repetitive actions.

The dangers here are clearer—anything fits—and if you do something well, consistently, and profitably, you have done half of the prosecutor's job.

False Statements [18 U.S.C. § 1001]

The False Statement statute covers almost every statement, whether oral or written, made to the federal government. The elements of the offense that must be proven beyond a reasonable doubt are:

(1) the speaker falsifies, conceals or covers up by any trick, scheme or device a material fact;

(2) the speaker makes any materially false, fictitious or fraudulent statement or representation; or

(3) the speaker makes use of any false writing or document knowing the same to contain any materially false, fictitious or fraudulent statement.

The statement need not be made directly to a department or agency of the federal government. It is sufficient to prove that the statement was made:

(1) to a federal agency in almost any form, whether the statement is required or not;

(2) to a private person or institution that implements federal programs such as the TNRCC; or

(3) in business records that may be subject to federal government inspection.

There are several factors that the prosecution is not required to prove in order to win a conviction.

First, there is no requirement that the Federal government suffer any financial or property loss or take any action favorable to the defendant. The mere capability or natural tendency to influence governmental action is sufficient.

Second, there is no requirement that the government actually relied upon the information.

Third, the prosecution doesn't need to prove the defendant's actual knowledge of federal agency jurisdiction over the subject matter for which the statement is made.

Fourth, the statement need not be written, signed or sworn.

Finally, the defendant need not have the intent to defraud, that is to deprive someone of something by means of deceit; proof of intent to mislead is sufficient.

All reports or invoices to federal agencies, or private or state agencies managing programs and paying with federal dollars, as well as all records subject to examination by similar agencies must be prepared and maintained with these guidelines in mind.

Environmental Criminal Liability

Criminal liability for environmental offenses is similar to that of other white collar crimes. The legal rule that a corporation may be generally held vicariously liable for the acts of its agents applies in the environmental context if the acts are completed on behalf of the corporation and are within the scope of the employee's authority.[21] In some instances, liability may be attributed to the corporation even when it has an express policy against an action deemed illegal.[22]

Not surprisingly, federal prosecutors will rarely be satisfied with only a corporate defendant on the hook by virtue of its vicarious liability for its employees. About as clearly as can be stated, Earl Devaney, the Director of the EPA Office of Criminal Enforcement, Forensics, and Training, has quite openly admitted "I'm not satisfied with charging the company." Prosecutors are wary of wholly in-house corporate discipline to adequately vindicate any public interest in the punishment of wrongdoers, environmental or otherwise. Thus, an environmental criminal investigation is likely to target responsible individuals *and* the company for the same nucleus of conduct. Managers are common targets of criminal investigations and prosecutions when individual conduct is difficult to ascertain. However, non-managerial employees may also be subject to environmental criminal liability. Courts have also imposed criminal liability on even low-level employees, even when the statute expressly holds only the persons in charge of a facility liable.[23]

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[21] *See United States v. Basic Const. Co.*, 711 F.2d 570 (4th Cir. 1983); *United States v. Sun-Diamond Growers*, 964 F. Supp. 486, 490 (D.D.C. 1997).

[22] *See* Kevin A. Gaynor & Thomas R. Bartman, *Criminal Enforcement of Environmental Laws*, 10 COLO. J. INT'L. ENVTL. L. & POL'Y. 39, 47 (citing Kathleen F. Brickley, *Corporate Counsel Liability: A Primer for Corporate Counsel*, 40 BUS. LAW. 129 (Nov. 1984) (discussing liability of corporations for the conduct of their officers, employees, and subsidiaries)).

[23] *See United States v. Carr*, 880 F.2d 1550 (2d Cir. 1989) (upholding criminal liability of a defendant "even of relatively low rank—who, because he was in charge of a facility, was in a position to detect, prevent, and abate a release of hazardous substances").

In addition to a corporation's joint liability and corporate employees' individual liability, corporate officers may also face liability for environmental crimes through a different theory. The "responsible corporate officer doctrine" permits criminal sanctions to be filed against a corporate officer for violating a public welfare statute, regardless of the officer's direct participation, as long as the officer was in a position to exercise the power to prevent or correct the violation.[24] There is no requirement that the officer actually exercises this authority or that the corporation expressly vested a duty in the officer to oversee the activity—the mere authority to control is enough.[25]

The responsible corporate officer doctrine is based on the principle that the public can expect those who deal with threatening or potentially dangerous products or activities to act when the law requires it. The courts have described the strict (and seemingly inequitable) standard noting that the public has a right to expect no less than strict adherence to the law from those who voluntarily assume positions of authority in business enterprises affecting human lives.[26] Thus far, the responsible corporate officer doctrine has only been applied to officers who are in a business subject to environmental regulation.[27]

Criminal Environmental Prosecution Today

Today's criminal environmental prosecution is much different from that of the early 1970s and 80s. Early efforts to prosecute environmental crimes generally occurred after substantial accidents or extensive and intentional violations of environmental statutes. This led to early accusations leveled against federal prosecutors that there was a "failure to prosecute environmental crimes vigorously."[28] Modern environmental criminals are decreasingly midnight dumpers or reckless industrialists viewing profit as paramount to the environment. Today, criminal environmental prosecution occurs just as often for the failure to properly comply with procedural aspects of environmental statutes as for tangible crimes against the environment. Accordingly, criticism against federal regulators appears to have largely shifted to that of accusations of "overuse and abuse."[29]

Prosecutions currently appear to take one of three forms. The first type of environmental prosecution may be categorized as a "reporting crime." Reporting crimes

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[24] *See* Kevin A. Gaynor & Thomas R. Bartman, *Criminal Enforcement of Environmental Laws*, 10 COLO. J. INT'L. ENVTL. L. & POL'Y. 39, 54 (citing Stanley A. Twardy Jr. & Michael G. Considine, *What Must One "Know" to be Convicted under the Environmental Laws?*, 11 SPG. NAT. RESOURCES & ENV'T. 48 (1997); Turner T. Smith, et al., *The Responsible Corporate Officer*, 2 CORP. CRIM LIABILITY REP. 12 (1988).

[25] *See United States v. Iverson*, 162 F.3d 1015 (9th Cir. 1998); *United States v. Hanousek*, No. 97-30185, 1999 WL 147359 (9th Cir. Mar. 19, 1999).

[26] *See United States v. Park*, 421 U.S. 658, 672 (1975).

[27] *See United States v. Torigan Lab., Inc.*, 577 F. Supp. 1514 (E.D.N.Y. 1984), aff'd, 751 F.2d 373 (2d Cir. 1984); *United States v. ACRI Wholesale Grocery Co.*, 409 F. Supp. 529 (S. D. Iowa 1976); *United States v. New England Grocers Supply Co.*, 488 F. Supp. 230 (D. Mass. 1980); *United States v. Gel Spice Co.*, 773 F.2d 427 (2d Cir. 1985); *United States v. Greer*, 850 F.2d 1447, 1453 (11th Cir. 1988).

[28] Remark of Rep. Charles Shumer, BNA, ENVIRONMENT REPORTER, at 1710 (Nov. 6, 1992).

[29] Letter from Daniel Popeo and R. Shawn Gunnarson of the Washington Legal Foundation to Attorney General John Ashcroft, June 28, 2001 (citing in BNA, 129 DAILY ENVIRONMENT REPORT, at A1 (July 6, 2001)).

are typified by false reports or other statements being submitted to environmental regulators. The second type of environmental prosecution, the "fraud crime," is similar to a reporting crime but is usually alleged in furtherance of pecuniary gain. The last is the "environmental injury crime" that is prosecuted by virtue of identifiable harm to the environment.

An additional hallmark of modern criminal enforcement of environmental laws is that of inconsistency in prosecutorial decisions and prosecutions. The Department of Justice has attempted to establish six "factors" that are to be used in determining whether criminal prosecution is warranted for environmental offenses. These factors include:

(1) whether such an offense was brought to the attention of regulators by the offender and may be considered a "timely and complete disclosure;"

(2) whether the offender was cooperative with regulators;

(3) whether a "regularized, intensive, and comprehensive" environmental compliance program" existed;

(4) the pervasiveness of noncompliance;

(5) the effectiveness of internal disciplinary action; and

(6) any post-violation compliance efforts.[30]

The EPA has promulgated substantially similar guidelines in its 1997 "Implementation of the EPA's Self-Policing Policy for Disclosures Involving Potential Criminal Violations." While providing guidelines for federal prosecutors, these policy memoranda appear to have fallen short of their stated goals. Little has been done in altering the premises put forth by the U.S. Supreme Court in *Bordenkircher v. Hayes*[31] that "[t]he decision to prosecute generally rests entirely in the prosecutor's discretion" and that "[t]his discretion is especially firmly held by the criminal prosecutor."

As discussed, an environmental enforcement may be sought administratively, civilly, or criminally. This enforcement decision is often very difficult to predict due to the large number of government agencies responsible for the investigation of environmental violations and because prosecutorial discretion in such cases resting unpredictably in either the Justice Department or in regional U.S. Attorney Offices. A 1993 announcement by Vickie O'Meara, the Assistant Attorney General for the Justice Department's Environment and Natural Resources Division, suggested that greater coordination was sought between Washington D.C. and U.S. Attorney Offices. These amendments to Chapter 11 of Title 5 of the U.S. Attorney's Manual were purported to

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[30] *See* U.S. Department of Justice, *Factors in Decisions on Criminal Prosecutions for Environmental Violations in the Context of Significant Voluntary Compliance or Disclosure Efforts by the Violator* (July 1, 1991) (reprinted in DONALD A. CARR, ET AL., ENVIRONMENTAL CRIMINAL LIABILITY at 473 (Appendix I) (1995)).

[31] 434 U.S. 357, 364 (1978).

"emphasize the departmental goal of cooperative efforts between U.S. Attorney's offices and the [Justice Department] in all cases."[32] This has been followed by development of intra-agency task forces specifically formed to investigate specifically identified areas of environmental compliance. An example of such a task force is the Underground Storage Tank Task Force that is currently active in Texas and throughout the country.

The power granted to federal prosecutors is enhanced by the narrowed role of the judiciary in sentencing components of the Sentencing Guidelines. This coupling allows federal prosecutors and agents to determine, on an individual and unreviewable basis, which cases will be prosecuted and which specific statutes will be charged. This selection capability predestines the potential penalties companies and individual employees might face.

Three Recent Real Life Examples

The United States Justice Department has instituted an environmental voluntary disclosure program. The purpose of the program is to encourage regulated entities that discover irregularities during internal audits to disclose the information to the appropriate agency. As an incentive to disclosure, participation in voluntary disclosure programs may act as a mitigating factor in the Justice Department's exercise of criminal environmental proceedings and also affords some leniency under the Sentencing Guidelines.

The environmental voluntary disclosure program, however, has proven to have serious drawbacks. Though the Justice Department issued internal guidelines for those who voluntarily participate in disclosure efforts, the Department maintains that the voluntary disclosure program is not a "formal program for voluntary disclosure." Rather, the Department, through the sole discretion of the prosecutor monitoring the particular disclosure, is free to make unpredictable prosecutorial decisions after internal information is voluntarily provided to the government by the company in the Program. Thus, the information voluntarily disclosed, possibly including information subject to the attorney-client privilege or the attorney work product doctrine, are not privileged and may very well come back to haunt program participants. Consequently, companies seeking to discourage government prosecution by participating in the voluntary disclosure program may actually be acting to the company's detriment.

A recent Texas prosecution against employees of Huntsman Chemical Company in Beaumont, Texas, is characteristic of a reporting crime. Two employees, the plant manager and the environmental manager, were indicted for making false, fictitious, or fraudulent claims and for conspiracy to present false, fictitious, or fraudulent claims in violation of 18 U.S.C. § 1001 and 371, respectively. The charges centered around the Huntsman plant's emission of regulated, volatile, organic compounds into the ambient air. Both employees were indicted in September 1998, after a four-year investigation, and were charged with the failure to report releases of volatile organic compounds and with falsely claiming on a required report that the Huntsman plant was within the controlled emissions limit. Huntsman Chemical Company, as an entity, was not indicted,

[32] American Bar Association Newsletter, April 1993 (Reid H. Weingarten, ed.).

but agreed to make a significant payment into an environmental project for the Beaumont region.

The Huntsman false claim charge involved a 500-page form, the Emissions Inventory, that required an estimate of the annual emissions from the Huntsman site. The form required the signature of a plant manager as a method of certifying the form's accuracy. Like most environmental regulatory requirements, the Emission Inventory included scant guidance in making calculations and was prone to various interpretations. Each employee who faced fraud charges signed the form. Of important note, neither defendant was involved first-hand in preparation of the Inventory.

The conspiracy charge against both Huntsman defendants involved conspiracy to obstruct the government in the lawful prevention of air pollution by falsifying forms. This type of conspiracy requires proving that some lawful government function was impaired.

The original Huntsman Indictment only made allegations arising from two years' Emissions Inventories and an associated conspiracy. After several months of trial preparation and additional investigation, the government dropped the counts related to the Emissions Inventories and reindicted the case based upon other instances of alleged misreporting. Both defendants were convicted after a lengthy trial in Beaumont and are currently awaiting sentencing.

An example of a Texas environmental case of the "fraud crime" type involves 13 employees from Intertek Testing Services Environmental Labs ("Environmental Labs"), formerly of Dallas. Environmental Labs conducted environmental sample analysis as a general subcontractor for environmental consulting firms, engineering firms, private enterprises, and federal, state, and local government entities. Similar to the Huntsman case, the government's indictment focused solely upon Environmental Lab's employees. The employees included the former Vice President for North American operations, supervisors, all the way down to laboratory chemists. The defendants were indicted on individual counts of mail fraud and presenting false, fictitious, and fraudulent claims against the federal government. Many of the defendants also faced conspiracy charges for an alleged agreement between the defendants related to the substantive counts of fraud.

The government's theory appeared to be that the employees conspired to fraudulently present reports of analyses on environmental samples by representing that the analysis had been preformed in accordance with specific quality control measures and that the procedure used to obtain the analyses was within the quality assurance criteria established as guidance by the EPA. The government believed the laboratory chemists and managers undertook the conspiracy to save the time and money it would have taken to repeat the tests after they realized the analyses were not within the EPA's specified range of measured reliability. As a result of the charges listed in the Indictment, many of the Environmental Lab employees faced maximum sentences in excess of twenty years and potential fines exceeding one million dollars. The case is currently set for trial beginning on October 1, 2001.

A U.S. Justice Department press release stated, "Regulatory agencies and private companies must be able to rely on analyses performed by independent testing laboratories. When a laboratory fails to follow basic scientific protocol, this can undermine the integrity of environmental protection efforts." The United States Attorney for the Northern District of Texas followed in stating, "Those who would gamble with our environment will face the full force of the law. The most dangerous contaminant to our environment is greed." These statements reiterate the government's intent to prosecute individual employees for violation of environmental laws regardless of whether there has been proven harm to the environment. Environmental Lab has not yet been charged with any violations. No company or agency who employed Environmental Lab for data analysis was charged with violating an environmental law.

The case of Environmental Lab is a study in the failure of the Voluntary Disclosure Program. Environmental Lab immediately notified regulators upon the discovery of problems at the lab and applied to enter the Program. Only after reviewing and copying company documents and extensively interviewing company employees did EPA decide not to approve Environmental Lab's participation. Much of the information gathered in the program was used to indict the 13 company employees.

Procedural violations charges do occasionally accompany charges for violation of environmental statutes in "environmental injury crimes" and *U.S. v. Koch Petroleum Group* is an example of such a case. Koch Petroleum Group and its Vice President and Refinery Manager, corporate counsel, plant manager, and an environmental engineer were all indicted on charges related to the continued failure to employ pollution reduction measures required by the EPA and the Clean Air Act. All of the defendants were indicted for conspiracy to conceal Koch's non-compliance through the underlying charges of making false statements and by aiding and abetting continued false statements. The defendants were also indicted for their failure to report releases of hazardous substances and for failure to install emission control equipment to prevent emission of hazardous air pollutant as required by the Clean Air Act.

The Clean Air Act requires facilities that release hazardous air pollutants to use measures to control such release. The Act also requires that annual releases of hazardous pollutants not exceed six tons per year. The Koch plant allegedly did not install pollution control devices, but represented on quarterly reports that the devices were installed and were working to keep the Koch plant well within the maximum amount for benzene emissions. Koch employees continued to complete these quarterly reports for 1995 and 1996. Koch emissions for 1995 were alleged to have been at least 91 tons, though Koch represented that it was within the six-ton annual requirement under the Clean Air Act.

Also during the 1995-96 timeframe, the Koch plant had allegedly experienced a hazardous pollutant spill that went unreported. CERCLA requires managers to report a benzene spill of ten pounds or more within a 24-hour period to the National Response Center and other local authorities. In October 1995, the Koch plant had allegedly experienced a spill where at least 24 pounds of benzene per hour was dumped into the main vent stream. The Koch spill was never reported.

The case dragged on for a substantial period of time after indictment during which the lead government attorney changed. Surprisingly, Koch eventually plead guilty and was consensually sentenced to pay a $10 million fine and $10 million in community service. As part of the agreement, Koch plead guilty to only one count; knowingly and willfully falsifying, concealing, and covering up material facts from the Texas Natural Resource Conservation Commission and the EPA. The government dropped the additional charges against the company and against all the individual defendants.

Prosecution for procedural violations of environmental laws has created liability concerns for many employees. The Huntsman and Koch cases placed genuine fear in plant managers and other management-level employees whose signatures are routinely required on documents sent to regulating agencies. With good reason, employees are reluctant to attach their names to official documents for fear the government will indict them for procedural violations when it (the government) cannot substantiate an environmental violations claim against the company.

Recent Developments in Environmental Criminal Prosecution

In January of 2001, the United States Supreme Court issued a surprise 5-4 decision apparently narrowing the reach of the Clean Water Act and federal enforcement of environmental law.[33] The decision held that the phrase "navigable water" as construed by a federal agency with regard to "non-navigable, isolated, intrastate waters" was overly broad and unsupported by the statute. The decision is thought by many to have profound implications for federal wetland investigations and prosecutions. Now, in any federal prosecution involving a wetland, there will be a threshold question of whether the wetland is covered by the Clean Water Act and whether the government has jurisdiction. Some commentators also posit that the government must also now prove that a defendant knew that a wetland in question was adjacent to actually navigable waters.[34]

Very recently, the government was slapped very heavily on the wrist in a manner that may be increasingly commonplace. The government in *United States v. Knott*[35] conducted an unannounced inspection of a steel mesh manufacturer after receiving an anonymous tip. The tip by a company employee alleged that the company was impermissibly releasing overly-acidic wastewater to the public sewer. The company owner consented to an accompanied search, and EPA investigators proceeded to investigate by sampling wastewater streams. Investigators took samples both on-site and off-site and reported illegal levels of acidity in numerous samples taken on-site (if they would have been discharged) and one off-site sample. Investigators investigated twice more pursuant to search warrants (one involving 21 armed agents) that were based partially upon illegally seized evidence from the first search. These subsequent investigations revealed high acidity levels while on-site that had decreased to permissible levels upon discharging off-site.

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[33] *Solid Waste Agency of N. Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001).

[34] *See* Neil Cartusciello, The Supreme Court Narrows the Reach of the Clean Water Act: Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, No. 99-1178 (Supreme Court, decided January 9, 2001), in White Collar Crime 2001, American Bar Association.

[35] 106 F. Supp. 174 (D. Mass. 2000).

The government, after an indictment and a colorful press release detailing the defendant's wrongdoing dismissed its charges. The district court in *Knott* ultimately granted the defendant's post-dismissal motion for an award of attorneys' fees and costs because the court found the government's claim, "although not provably frivolous or in bad faith, [to be] clearly vexatious."[36] Of additional note is that the court found credible evidence presented by the defendant that the government had altered the results of the only potentially incriminating evidence, which related to the acidic off-site sample found pursuant to the first search. On August 8, 2000, the former defendant filed a still-pending civil complaint against the federal government alleging malicious prosecution.

Any impact by the United States District Court for the District of Massachusetts in *Knott* appears to have been substantially undermined by an appeal decided by the First Circuit on July 12, 2001.[37] The First Circuit appears to have effectively insulated federal prosecutors from any adverse consequence associated with prosecuting groundless criminal charges in acting as "zealous advocates." In reversing the district court in *Knott*, the First Circuit stated a different legal standard for the awarding of fees and costs to a defendant, stating that "'vexatious[ness]' . . . requires *both* a showing that the criminal case was objectively deficient, in that it lacked either legal merit or factual foundation, *and* a showing that the government's conduct when viewed objectively, manifests maliciousness or an intent to harass or annoy."[38] The First Circuit found the lower court *Knott* decision to be insufficient because it only rested upon the groundlessness of the charges prosecuted by the government and not upon malice or intentional harassment and/or annoyance. The First Circuit further dismissed the import of several allegations made against the government related to malice. Most notably, the court found insufficient evidence related to (1) improper EPA conduct and the subsequent suppression of evidence by the district court; (2) alleged EPA tampering of incriminating sample results (such evidence deemed "credible evidence" by the district court); (3) repeated (and allegedly irrelevant) on-site testing; (4) the issuance of press releases; (5) the delayed production of exculpatory evidence; (6) alleged undue delay in dismissal of the case; and (5) the unnecessary and "'humiliating'" use of "'a virtual SWAT team'" in conducting searches.[39]

The challenges posed by the present criminal enforcement of environmental laws appears to have recently raised the ire of some nongovernmental organizations. For example, in May 2001, the Washington Legal Foundation filed a petition with the EPA requesting the adoption of a statement of rights for targets of EPA investigations. The petition charged EPA agents with using abusive practices while conducting searches and obtaining information. The petition also accused the EPA of pursuing trivial environmental infractions with criminal enforcement resources. Though adoption of the petition is unlikely, the EPA reportedly has been working toward improving training and

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[36] *Id.* at 180. The Hyde Amendment, found at 18 U.S.C. § 3006A, states that "the court, in a criminal case . . . may award to a prevailing party, other than the United States, a reasonable attorney's fee and other litigation expenses, where the court finds that the position of the United States was vexatious, frivolous, or in bad faith, unless the court finds that special circumstance make such an award unjust."

[37] *See United States v. Knott*, Nos. 00-2238, 00-2239 (1st Cir. July 12, 2001).

[38] *Id.* (emphasis added).

[39] *Id.*

investigations.[40] More recently, on June 28, 2001, the Washington Legal Foundation sent a letter to Attorney General John Ashcroft regarding many of its accusations against EPA.

Conclusion

Problems in the present prosecution of environmental crimes are becomingly increasingly well-defined. The biggest challenge in moving forward in the years to come appears to be in how these defined problems will be addressed and rectified.

The picture painted above can seem pretty bleak, but that is so only if an employer and its employees operate with their collective heads in the sand. The major factor in protecting against a lengthy criminal investigation, or possibly an indictment or worse, is a viable corporate compliance program. Whatever it is called in your particular industry, a program that monitors the people and systems involved in the daily business of the company, identifies problem areas, and actively works to rectify the problems is essential for operating in a regulated industry.[41] One important component of such a program is an internal Hot Line that encourages each individual employee to inquire about or report potential problems and to assume responsibility for compliance.

While a compliance program is always a cost center rather than a profit center, it is a cost that you and your company cannot afford to forego. The alternative is significantly worse.

Now you know better.

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[40] *See* Peyton M. Sturges, *Petition Asks EPA to Adopt Proposal to Protect Rights of Investigation Suspects*, DAILY ENVIRONMENTAL REPORT (May 24, 2001) ISSN 1521-9402.

[41] Attachment B includes the minimum standards for an internal compliance program as set out in the Federal Sentencing Guidelines for Organizations.

ATTACHMENT A

Offenses Involving the Environment

§ 2 Q of the Federal Sentencing Guidelines

§ 2Q1.1 Knowing endangerment resulting from mishandling hazardous or toxic substances, pesticides or other pollutants is a base 24 [51 to 63 months to serve for a first offender]. If serious bodily injury or death resulted, there may be an upward departure.

§ 2Q1.2 Covers three separate types of offenses: (1) mishandling of hazardous or toxic substances or pesticides; (2) recordkeeping, tampering and falsification; and (3) unlawfully transporting hazardous materials in commerce. All have a base level of 8 [0 to 6 months with the possibility of probation in lieu of incarceration]. The Guideline then lists seven situations that would add between 2 levels [total of level 10 or 6 to 12 months with incarceration likely] and 9 levels [total of 17 levels or 24 to 30 months to serve].

§ 2Q1.3 Deals with lesser offenses of the same general nature as above, beginning at a base 6 [0-6 months with the possibility of probation in lieu of incarceration] with possible increases between 4 levels [total of 10 levels or 6 to 12 months] and 11 levels [total of 17 levels or 24 to 30 months to serve].

ATTACHMENT B

Minimum Standards for an Internal Compliance Program as set out in the Federal Sentencing Guidelines for Organizations § 8A1.2 Commentary

(k) An "effective program to prevent and detect violations of law" means a program that has been reasonably designed, implemented, and enforced so that it generally will be effective in preventing and detecting criminal conduct. Failure to prevent or detect the instant offense, by itself, does not mean that the program was not effective. The hallmark of an effective program to prevent and detect violations of law is that the organization exercised due diligence in seeking to prevent and detect criminal conduct by its employees and other agents. Due diligence requires at a minimum that the organization must have taken the following types of steps:

(1) The organization must have established compliance standards and procedures to be followed by its employees and other agents that are reasonably capable of reducing the prospect of criminal conduct.

(2) Specific individual(s) within high-level personnel of the organization must have been assigned overall responsibility to oversee compliance with such standards and procedures.

(3) The organization must have used due care not to delegate substantial discretionary authority to individuals whom the organization knew, or should have known through the exercise of due diligence, had a propensity to engage in illegal activities.

(4) The organization must have taken steps to communicate effectively its standards and procedures to all employees and other agents, *e.g.*, by requiring participation in training programs or by disseminating publications that explain in a practical manner what is required.

(5) The organization must have taken reasonable steps to achieve compliance with its standards, *e.g.*, by utilizing monitoring and auditing systems reasonably designed to detect criminal conduct by its employees and other agents and by having in place and publicizing a reporting system whereby employees and other agents could report criminal conduct by others within the organization without fear of retribution.

(6) The standards must have been consistently enforced through appropriate disciplinary mechanisms, including, as appropriate, discipline of individuals responsible for the failure to detect an

offense. Adequate discipline of individuals responsible for an offense is a necessary component of enforcement; however, the form of discipline that will be appropriate will be case specific.

(7) After an offense has been detected, the organization must have taken all reasonable steps to respond appropriately to the offense and to prevent further similar offenses — including any necessary modifications to its program to prevent and detect violations of law.

The precise actions necessary for an effective program to prevent and detect violations of law will depend upon a number of factors. Among the relevant factors are:

(i) Size of the organization — The requisite degree of formality of a program to prevent and detect violations of law will vary with the size of the organization: the larger the organization, the more formal the program typically should be. A larger organization generally should have established written policies defining the standards and procedures to be followed by its employees and other agents.

(ii) Likelihood that certain offenses may occur because of the nature of its business — If because of the nature of an organization's business there is a substantial risk that certain types of offenses may occur, management must have taken steps to prevent and detect those types of offenses. For example, if an organization handles toxic substances, it must have established standards and procedures designed to ensure that those substances are properly handled at all times. If an organization employs sales personnel who have flexibility in setting prices, it must have established standards and procedures designed to prevent and detect price-fixing. If an organization employs sales personnel who have flexibility to represent the material characteristics of a product, it must have established standards and procedures designed to prevent fraud.

(iii) Prior history of the organization — An organization's prior history may indicate types of offenses that it should have taken actions to prevent. Recurrence of misconduct similar to that which an organization has previously committed casts doubt on whether it took all reasonable steps to prevent such misconduct.

An organization's failure to incorporate and follow applicable industry practice or the standards called for by any applicable governmental regulation weighs against a finding of an effective program to prevent and detect violations of law.

EDWIN J. TOMKO
1700 Pacific Avenue, Suite 4100, Dallas, Texas 75201-4675
(214) 969-4730

Edwin J. Tomko, a partner in the Dallas office of Akin, Gump, Strauss, Hauer & Feld, L.L.P., specializes in criminal and regulatory aspects of fraud in procurement, securities, banking, health care and environmental investigations, as well as qui tam defense and fraud related civil litigation. Prior to joining Akin Gump, Mr. Tomko was a partner at the law firm of Baker Botts, L.L.P., and at the firm of Doke & Riley in Dallas where he maintained a similar practice.

Mr. Tomko left government service for private practice in June of 1998. From 1973 until June 1998, Mr. Tomko held various positions in the Department of Justice and the Securities and Exchange Commission. During the period from 1973 through 1982, as Trial Attorney and Special Counsel in the Department of Justice's Criminal Fraud Section, Mr. Tomko was lead counsel in numerous major trials involving banking, securities, commercial lending, and government procurement fraud, including *United States v. T. Bertram Lance, et al.* and *United States v. Alexander and Allen, et al.*

Subsequently, while serving as Assistant Chief Litigation Counsel for the Securities and Exchange Commission, Mr. Tomko was the lead attorney in *SEC v. First Jersey Securities, Inc. and Robert E. Brennen*, among other cases.

Immediately prior to joining Doke & Riley, Mr. Tomko returned to the Department of Justice as Deputy Chief of the Fraud Section, Criminal Division. As Deputy Chief, Mr. Tomko supervised all banking and securities investigations conducted by the Fraud Section, including

the Dallas Saving and Loan Task Force. He also served in the District Attorney's office in Pittsburgh, Pennsylvania, from 1969 to 1973.

Mr. Tomko received his B.A. in 1965 from Washington & Jefferson College and his J.D. in 1968 from Vanderbilt University School of Law.

Mr. Tomko is a member of the Pennsylvania, District of Columbia, Texas, Dallas and American Bar Associations.

A QUICK LOOK AT SEPs IN FY 1999 AND FY 2000

David Frederick
Frederick-Law
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It is a competitive world in which businesses operate. A advantage can sometimes be had by a competitor that successfully avoids an environmental law. Certainly, one does not want the competitors of ones client to skirt environmental laws lightly. For this reason and because ones own client might unwittingly transgress, an understanding of the rules-of-thumb of various emerging, arguably more progressive, environmental regulation enforcement schemes is well worth developing. This paper looks briefly at one such enforcement scheme, the substitution by state regulators of "supplemental environmental projects" for some or all of the financial penalties alleged violators of environmental regulations historically faced.

History. Prior to 1985, the state's environmental regulatory agencies lacked the authority to impose at the agency level financial penalties against a party that violated one of the state's environmental regulations. Prior to 1985, it was necessary for an agency to refer its enforcement initiatives, at least, those involving fines, to the Attorney General for action in civil court. In 1985, however, the legislature changed that with the passage of three acts, which acts empowered the Texas Air Control Board, the Texas Department of Health and the Texas Water Commission to impose fines directly ("administratively").[1]

Beginning at least as early as 1991, the EPA issued a policy to guide its enforcement officers in the substituting of "supplemental environmental projects" ("SEPs") for some or all of what would otherwise be administrative penalties.[2] This policy has been through several iterations, the most recent of which dates from May 1, 1998.[3]

SEP law and policy. Texas followed suit in 1993 with legislation allowing its environmental agencies to utilize
SEPs in agency enforcement proceedings.[4] A SEP is now (September 1, 2001) defined in Texas law as:

> a project that prevents pollution, reduces the amount of pollutants reaching the environment, enhances the quality of the environment, or contributes to public awareness of environmental matters.

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1 Chs. 637, § 33, and 795, §§ 6.001 and 5.007, respectively, Acts 1985, 69th Tex. Leg., Reg. Sess..

2 Spillman, Pat, "EPA's Revised Policy on the Use of Supplemental Environmental Projects," 27 *State Bar of Texas Environmental Law Journal*, pp. 24-29 (Summer 1996).

3 EPA, *EPA Supplemental Environmental Projects Policy*, May 1, 1998. Most easily found at URL: http://es.epa.gov/eoca/sep/sepfinal.html.

4 ch. 551, §§ 1-4, Acts 1993, Tex. Leg., Reg. Sess.

Sec. 7.067(b), Tex. Water Code.

The legislative SEP authorization to the Texas Natural Resource Conservation Commission now (September 1, 2001) is:

> The commission may compromise, modify, or remit, with or without conditions, an administrative penalty imposed under this subchapter. In determining the appropriate amount of a penalty for settlement of an administrative enforcement matter, the commission may consider a respondent's willingness to contribute to supplemental environmental projects that are approved by the commission, giving preference to projects that benefit the community in which the alleged violation occurred. The commission may approve a supplemental environmental project with activities in territory of the United Mexican States if the project substantially benefits territory in this state in a manner described by Subsection (b). The commission may not approve a project that is necessary to bring a respondent into compliance with environmental laws, that is necessary to remediate environmental harm caused by the respondent's alleged violation , or that the respondent has already agreed to perform under a preexisting agreement with a governmental agency.

Sec. 7.067(a), Tex. Water Code.

The Texas Natural Resource Conservation Commission ("TNRCC")[5] has not promulgated regulations on SEPs, but it, too, has a policy document on their use.[6] In brief, that policy provides:

1. the penalty amount, not considering the amount of any SEP, must be sufficient to deter future violations (both by the instant violator and by others);

2. the penalty amount, without considering the amount of any SEP, must be sufficient "to the extent possible" to recapture the economic benefits of non-compliance and "some appreciable portion" of the gravity component of the penalty calculation;

3. substitution of a SEP for an administrative penalty should normally result in less than a 50% reduction in the recommended administrative penalty;

4. a dollar spent on a SEP may offset a dollar of penalty, if the project directly remediates environmental contamination or reduces pollutants entering the environment; and

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[5] Effective January 1, 2004, "Texas Commission on Environmental Quality"

[6] Pearson, Dan, "Environmental Enforcement Policy Statement, Use of Supplemental Environmental Projects in Settlements," October 26, 1995. Most easily found at URL: http://www.tnrcc.state.tx.us/legal/sep/seppolicy.html.

5. governmental entities are eligible for 100% reductions, through SEPS, in what would otherwise be their penalties.

(The state policy differs from the EPA policy in a number of respects. Whether one is more restrictive than the other is, I am sure, open to debate. The federal policy is certainly stated in more detail. It explicitly encourages SEPs that advance the goals of environmental justice, it requires a logical connection between the violation alleged and the SEP project undertaken, it disallows SEPs subsidized by governmental assistance, and it requires recapture of the greater of (1) the economic benefit of the violation, plus 10% of the gravity component of the penalty or (2) 25% of the gravity component of the penalty.)

The FY 1999 and FY 2000 experience. TNRCC annually summarizes its use of SEPs. The most recent summary was released March 1, 2001.[7] This summary is available on the "web," and it includes information for fiscal years 1996 through 2000. The information for FYs 1999 and 2000 is attached, here, and the URLs cited, there, will lead one to earlier years' information.

I reviewed the FY 1999 and FY 2000 information at a cursory[8] level to get some feel for how the agency implements its SEP policy.

A few things worth knowing are evident. First of all, it appears that the agency utilizes SEPs in about 7% to 10% of its administrative enforcement orders. There were 843 such orders in FY 2000, and there were 87 SEPs that year. There were 662 such orders in FY 1999, and there were, then, 44 SEPs.[9]

It does not appear one need worry much that ones proposed SEP will be thought to only "indirectly" remediate contamination or reduce pollutants, thus, requiring one to expend more than one SEP dollar to offset a dollar of penalty. In FY 2000, the costs of all but 7 SEPs were allowed to offset penalty dollars one-to-one. The odds were worse in FY 1999 (13 of 44), but only 3 in FY 1999 required offset ratios greater than 3:1. Examples of "direct" contaminant remediation or pollution reduction included contribution of emergency response equipment to fire departments and the purchase of water conservation workbooks and kits for elementary school classes.

If a violator is a governmental entity, it is the rule, rather than the exception, that penalties will be offset completely (i.e., reduced to zero) by SEP commitments. Considerations of

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[7] TNRCC, *Final Annual Enforcement Report, Fiscal Year 2000* (March 1, 2001).

[8] That is, I did not investigate the enforcement files lying behind the information presented by the agency in its March 1, 2001, report. Review of those files would be necessary, if one were to develop a clear understanding of the nexus, if any, between the alleged violation and the SEP, since the report, itself, does not describe the alleged violation (other than to say one is, for example, an "air" violation). Considerable investigation of the facts of many of the SEPs would also be necessary, before one could confidently know that the SEPs were calculated to bring about environmental improvements that the alleged violator had no other legal duty to undertake.

[9] Appendices 1 and 3, respectively, to the March 1, 2001 report.

deterrence and gravity of the violations pretty much do not apply to governmental entities. In FY 2000, half (44 of 87) the administrative orders involving SEPs resulted in zero dollars in penalties actually being paid.[10] Governmental entities were the recipients of 41 of these, and water supply corporations were the recipients of two more. An Episcopal school got the final one. Only one governmental entity (the City of Stephenville) apparently had to pay a penalty, beyond the SEP commitment, in FY 2000.[11] The story was about the same in FY 1999, with only two governmental entities agreeing to SEPs and, also, having to pay penalties.

Similarly, though the policy may be that a SEP normally substitutes for less than 50% of an administrative penalty, that was certainly not the practice in FY 1999 or FY 2000. In FY 2000, only one alleged violator that committed to a SEP was denied at least a 50% penalty reduction.[12] Calabrian Chemicals, alas, was allowed to offset only 44% of its penalty with its SEP, which SEP was buying emergency response equipment to help the Port Neches Fire Department respond to chemical emergencies. No alleged violator that committed to a SEP in FY 1999 was so unfortunate as to be denied less than a 50% penalty reduction.

There is a final observation that fairly may be made from a review of the FY 1999 and FY 2000 information: the agency does not seem to be much of a stickler as to whether the alleged violator might have undertaken or been liable to undertake the SEP, notwithstanding the enforcement action that gives rise to it. This is particularly true for governmental entities. A review of the FY 2000 SEPs, for example, shows cities committing to extending sewer systems to city residents, shows schools buying water conservation workbooks and materials for students, shows the state cleaning up an illegal dump on its property, and shows Texas Parks and Wildlife enhancing a marsh and stocking it with marine life.

In the end, it appears that an alleged violator – particularly, a governmental or quasi-governmental violator – likely has something to gain by committing to a SEP to offset penalties TNRCC would otherwise impose. The agency's written policy on SEPs does not accurately reflect the opportunities the alleged violator has, here. The odds are good of receiving a one-for-one credit against penalties for SEP expenditures, the alleged violator is almost assured a 50% penalty reduction (100% penalty reduction for governmental and quasi-governmental entities), the restrictions on projects that might qualify for SEP status are not onerous, and there is always the chance the alleged violator can engender some community good will – all, while making at least a marginal contribution to environmental protection.

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[10] "Payable penalties plus SEP commitment costs" are sometimes less than "assessed penalties," because portions of the latter (usually, 20%) are deferred indefinitely, so long as the SEP commitment is honored.

[11] Stephenville and Erath Recycling were allegedly co-violators, so it is not clear that Stephenville, rather than the recycler, actually paid the penalty ($675).

[12] As noted earlier, there is sometimes a difference in the assessed penalty and the amount, in addition to the SEP commitment, one would owe. 20% of the assessed penalty is often deferred indefinitely.

TNRCC FY2000 Annual Enforcement Report

Appendix 2: Summary of Supplemental Environmental Projects Approved in Administrative Orders Issued in Fiscal Year 2000

Program	Entity Name	Order Effective Date	Ratio	Assessed Penalty	Deferred Penalty	SEP Condition-al Offset Amount	Payable Penalty	SEP Cost	SEP DESCRIPTION
AIR	AMOCO PIPELINE - BOWIE PIPELINE STATION	12/13/1999	1:1	$5,500.00	$0.00	$2,750.00	$2,750.00	$2,750.00	Contribution to the Audobon Society to be used in cooperation w/ the Thompson Foundation of Montague County, implement erosion control and provide for restoration of the grasslands at the LBJ National Park.
AIR	AMOCO PIPELINE - COLORADO CITY STATION	12/13/1999	1:1	$5,500.00	$0.00	$2,750.00	$2,750.00	$2,750.00	Contribution to the City of Synder to be used for asbestos abatement in a project to restore the Brownfield Building.
AIR	CARDELL CABINETS INC	11/07/1999	1:1	$212,500.00	$0.00	$106,250.00	$106,250.00	$106,250.00	Contribution to Nature Conservancy to be used to implement the Southern Edwards Aquifer Project, acquiring land in targeted areas north of San Antonio for conservation and preservation of the aquifer.
AIR	DIAMOND SHAMROCK REFINING COMPANY LP	04/20/2000	1:1	$10,925.00	$2,185.00	$4,370.00	$4,370.00	$4,370.00	Purchase emergency response equipment and donate the equipment to the Three Rivers Fire Department. The purchases, at minimum will include an organic vapor monitor and a Level A protective suit.

AIR	ELF ATOCHEM NORTH AMERICA INC	08/11/2000	1:1	$39,875.00	$0.00	$19,937.00	$19,938.00	$19,937.00	Contribution to Texas Parks & Wildlife ("TPW") to facilitate the repair of the west canal gate valves at the Sheldon Lake Reservoir. The repair of the valves will allow the water to be replaced and wetlands restored.
AIR	FORMOSA PLASTICS CORPORATION TEXAS	11/07/1999	1:1	$118,975.00	$0.00	$59,487.00	$59,488.00	$59,487.00	Expand the Household Hazardous Waste (HHW) Collection Day in the cities of Victoria and PortLavaca. Will expand current programs in Jackson, DeWitt or Golid Counties.
AIR	GREIF BROTHERS CORPORATION	11/25/1999	1:1	$111,210.00	$22,242.00	$44,484.00	$44,484.00	$44,484.00	Contribution to Nature Conservancy to acquire a 10 acre tract of land adjacent to the Galveston Bay Prairie Preserve and additional acres along the coast to provide and protect habitat for the endangered Attwater Prairie Chicken. If the land cannot be acquired w/in a year, the payment will go to the restoration and enhancement of 13 acres of Moses Slough.
AIR	HERTZ CAR RENTAL	08/31/2000	1:1	$1,250.00	$0.00	$625.00	$625.00	$625.00	Contribution to Audubon Society will be used to purchase native desert plants for the Feather Lake Sanctuary Project in El Paso County.
AIR	KARON GAS UNIT	08/11/2000	1:1	$2,500.00	$500.00	$1,000.00	$1,000.00	$1,000.00	Contribute to the RC&D to be used in the De Go La RC&D Wastewater Treatment Assistance project. Low income owners in Live Oak County with failing wastewater treatment systems will recieve technical and financial assistance to install alternative wastewater treatment systems.

AIR	LEGGETT & PLATT INC TEXAS FIBERS DIV	05/22/2000	4.8:1	$29,200.00	$0.00	$14,600.00	$14,600.00	$70,000.00	Reduce VOC's by converting the current gluing process to a process which uses acetone.
AIR	OGLETREE LUMBER SALES	11/25/1999	1:1	$5,000.00	$0.00	$2,500.00	$2,500.00	$2,500.00	Provide manpower, materials, transportation, and disposal costs to fund the clean-up and disposal of waste at apx 1/4 mile of Choates Creek.
AIR	TRIFINERY PETROLEUM SERVICES	06/18/2000	1:1	$20,000.00	$4,000.00	$8,000.00	$8,000.00	$8,000.00	Purchase 250 units of "Learning to be Water Wise," a Technology-Based Education Conservation Program from the National Energy Foundation, and contribute the materials to the Tuloso-Midway Independent School District for fifth grade students at the Intermediate School to use in their science classes.
AIR	UNION CARBIDE CORPORATION	11/25/1999	1:1	$22,500.00	$4,500.00	$9,000.00	$9,000.00	$9,000.00	Contribution to Galveston Co. Health District to schedule, coordinate, and manage a household hazardous waste (HHW) collection day for Galveston County.
IHW	BILLMARK COMPANY INC	01/31/2000	1:1	$31,000.00	$0.00	$15,500.00	$15,500.00	$15,500.00	Clean-up illegal dumpsites within the City of Ft. Worth. This will be done by contracting for equipment to facilitate the transportation of waste to the city landfill; pickup illegally dumped waste; identify materials that can be recycled and deliver those materials to a recycling center; properly disposing of non-recyclable waste; and properly disposing of any hazardous waste found during the clean-up effort.

IHW	CONROE CREOSOTING COMPANY	10/10/1999	1:1	$13,680.00	$0.00	$6,840.00	$6,840.00	$6,840.00	Contribute to the City of Conroe to implement a household hazardous waste project.
IHW	DIAMOND SHAMROCK REFINING & MARKETING CO	08/31/2000	1:1	$60,120.00	$12,024.00	$24,048.00	$24,048.00	$24,048.00	Contribution to the City of Portland to construct a water exchange at Sunset Lake in Portland, Tx. Sunset Lake is an ecologically rich wetland and open water coastal habitat. Sunset Lake has at times experienced low dissolved oxygen related minor fish kills and algal blooms in the wetland as a result of poor water quality. The construction of a water exchange connecting Sunset Lake to Corpus Christi Bay is essential to maintain and improve the water quality of the lake.
IHW	EMMETT PROPERTIES INC	07/03/2000	1:1	$12,000.00	$2,400.00	$4,800.00	$4,800.00	$4,800.00	Contribution to the Houston Household Hazardous Waste ("HHW") Program. Contribution will be used in connection with the City of Houston's effort to collect and dispose of HHW.
IHW	ERATH RECYCLING INC	05/01/2000	1:1	$11,250.00	$0.00	$5,625.00	$5,625.00	$5,625.00	Contribution to City of Stephenville will be used for riverbank stabilization and clean up of illegal dump sites along the Upper North Bosque River.
IHW	FRONTIER AUTOMOTIVE INC	04/08/2000	1:1	$5,000.00	$0.00	$2,500.00	$2,500.00	$2,500.00	Contribution will be used by the Texas Audubon Society for the south plains riparian restoration project. Will be used to rehabilitate one half mile of riparian habitat, control invading exotics, and plant native willows and cottonwoods in the north fork of the Double Mountain Fork of the Brazos River in Lubbock County.

IHW	GULF CHEMICAL METALLURG-ICAL CORPORATION	04/08/2000	1:1	$14,800.00	$2,960.00	$5,920.00	$5,920.00	$5,920.00	Contribution to Fort Bend County will be used to provide for the upgrade or replacement of on-sites septic systems for low income families within the county.
IHW	LUFKIN CREOSOTING CO INC	05/22/2000	1:1	$17,500.00	$0.00	$8,750.00	$8,750.00	$8,750.00	Contribution will be used in the Pineywoods RC&D Wastewater Treatment Assistance Project. Low income owners in Angelina County with failing wastewater treatment systems will receive technical and financial assistance to install alternative wastewater treatment systems.
IHW	QUALA SYSTEMS INC.	12/26/1999	1:1	$87,490.00	$0.00	$43,745.00	$43,745.00	$43,745.00	Contribution will be used by the Nature Conservancy to implement elements of the Galveston Bay Coastal Prairie Preserve, Restoration and Enhancement project. The contribution will allow to do prescribed burning, to apply herbicides, and to maintain a mowing treatment in order to remove non-native Chinese Tallow trees.
IHW	RIVER CITY METAL FINISHING INC	06/18/2000	1:1	$9,350.00	$1,870.00	$3,740.00	$3,740.00	$3,740.00	River City will purchase protective and liquid-proof gloves, hard hats, boot covers, and various other protective equipment to be donated to the Bexar County LEPC and used by the Hazardous Material Response Teams for cleaning up spills after hazardous materials releases.

IHW	SEATRAX INC.	07/03/2000	1:1	$93,125.00	$0.00	$46,563.00	$46,562.00	$46,563.00	Contribution to the Houston Household Hazardous Waste (HHW) Program. Contribution will be used in connection with the City of Houston's effort to collect and dispose of HHW.
MM	BIG WELLS CITY OF	02/12/2000	1:1	$3,330.00	$0.00	$3,330.00	$0.00	$3,330.00	Build a citizen collection center which will give the citizens of the city a place to deposit old appliances for recycling.
MM	CALABRIAN CHEMICALS	11/25/1999	1:1	$13,550.00	$0.00	$5,938.00	$7,612.00	$5,938.00	Purchase six (6) Level A Emergency Response suits, and an 800 MHz intrinsically safe radio to be donated to and utilized by the Port Neches Fire Department for responding to chemical emergencies.
MM	CITGO REFINING & CHEMICALS EAST PLANT	09/10/1999	1:1	$650,000.00	$0.00	$325,000.00	$325,000.00	$325,000.00	Contribute to the Nature Conservancy of Texas, to acquire 300 acres on Mustang Island fronting Corpus Christi Bay, a high priority wetland restoration/enhancement site.
MM	CK WITCO CORPORATION (WITCO CHEMICAL)	05/22/2000	1:1	$48,650.00	$9,730.00	$19,460.00	$19,460.00	$19,460.00	Contribution to the Fort Bend County Extension Service to be used to implement an Agricultural Waste Pesticide Collection Program in Fort Bend County.
MSW	BOOKER CITY OF - MSW LANDFILL	11/25/1999	2.5:1	$2,000.00	$400.00	$1,600.00	$0.00	$4,000.00	Respondent will clean up and dredge a natural waterway which flows into Caowa Creek to improve water flow and prevent flooding.

MSW	CROWELL CITY OF - LANDFILL	12/26/1999	1:1	$21,875.00	$0.00	$21,875.00	$0.00	$21,875.00	Contribute to the Resource Conservation Development Inc. (RC&D) to install Best Management Practices at selected sites in order to control agricultural storm-water runoff. This project will use native species plants and grasses to develop buffers and terraces along the stream and waterways.
MSW	HIDALGO COUNTY PRECINCT 4 LANDFILL	07/29/2000	1:1	$11,375.00	$0.00	$11,375.00	$0.00	$11,375.00	Purchase a tire bailer to help efforts to pick-up and dispose of illegally dumped tires. Hidalgo County estimates that its employees are picking up 3,000 illegally dumped tires per month. The tire bailer will be on a mobile trailer that will allow the residents from the entire county to have easy access. The project will allow the county to use some of these tires for various erosion control projects.
MSW	STEPHENVILLE CITY OF & ERATH RECYCLING	05/01/2000	1:1	$3,350.00	$0.00	$2,675.00	$675.00	$2,675.00	The City and Erath Recycling will implement two projects to offset penalties levied by the TNRCC. The City will identify and clean up illegal dump sites along the banks of the Upper North Bosque River. The City will use Erath Recycling's SEP monies to implement slope stabilization and erosion control measures along the Upper North Bosque River with a structural bio-engineered product. The City will also provide for revegetation and selective planting in the open cells of the erosion control system.

PST	AZTECH RENTALS OF SAN ANTONIO INC	08/31/2000	1:1	$8,750.00	$0.00	$4,375.00	$4,375.00	$4,375.00	Contribute to the Audubon Society to be used in the Mitchell Lake Project to reestablish key plant species and native plants to provide bio-removal of heavy metals and toxins and to provide a food source at the bird sanctuary.
PWS	BATESVILLE WSC	12/26/1999	1:1	$6,450.00	$0.00	$3,225.00	$3,225.00	$3,225.00	Purchase at least 93 units of "Learning to be Water Wise," a Technology-Based Education Conservation Program from the National Energy Foundation, and contribute the materials to the Batesville schools for 4th,5th, and 6th graders to use in their science classes.
PWS	BEECHWOOD WSC	10/28/1999	1:1	$5,338.00	$0.00	$5,338.00	$0.00	$5,338.00	Install water lines, taps and tie 12 homes into a drinking water system. The recipient homes will not be charged for the costs of extending the service or connecting to the system.
PWS	KIRBYVILLE CITY OF	12/26/1999	1:1	$3,250.00	$0.00	$3,250.00	$0.00	$3,250.00	Place four low-income families currently using failing independent septic systems on the city's sewer system. This will included, making connections from existing sewer force mains to four city residences;providing lift stations where required; and completing the projects at no cost to the families.

PWS	NEW SALEM WSC	01/31/2000	1:1	$13,300.00	$0.00	$6,650.00	$6,650.00	$6,650.00	Repair or replace failing septic systems for three low income families in Rusk County. This will include consulting with the Rusk County Health Dept. and the TNRCC to identify three high priority sites, contracting to repair or replacing the identified faulty systems at no cost to the low-income owner; and to provide a warranty on the workmanship and equipment for one year.
PWS	PAXTON WSC PAXTON PLANT	06/18/2000	1:1	$6,588.00	$0.00	$6,588.00	$0.00	$6,588.00	Contribution will be used in the Pineywoods RC&D Wastewater Treatment Assistance Project. Low income owners in Shelby County with failing wastewater treatment systems will receive technical and financial assistance to install alternative wastewater treatment systems.
PWS	ROMA CITY OF	11/25/1999	1:1	$3,125.00	$0.00	$3,125.00	$0.00	$3,125.00	Provide wastewater collection service to 3 homes in the Jose Noel Cruz Colonia. This will include: the cost of PVC pipes, manholes, service connections, a yard lines and a clean out; the labor and equipment necessary to extend services to the community.
PWS	TERLINGUA RANCH PROPERTY OWNERS ASSOC	11/25/1999	2.16:1	$1,250.00	$0.00	$625.00	$625.00	$1,350.00	Modify a 16 foot utility trailer for the implementation of a waste reduction program at the facility. The trailer will be used solely for the transport of recyclable cans to a nearby recycling facility. In addition, will build a bin for use by the restaurant for the composting of kitchen waste.

PWS	TEXAS STATE OF PARRIE HAYNES YOUTH CAMP	06/18/2000	1:1	$1,500.00	$300.00	$1,200.00	$0.00	$1,200.00	Clean up illegal dumping on a two acre site at the Parrie Haynes Ranch. Will include: collecting, removing and disposing of non-recycle debris from the specified site; recycling materials where it is feasible; and post English/Spanish no-dumping signs at the site.
PWS	UPPER JASPER COUNTY WATER AUTHORITY	08/26/2000	1:1	$6,125.00	$0.00	$6,125.00	$0.00	$6,125.00	Upper Jasper County Water Authority will install an aerobic wastewater treatment system for a low-income resident of Jasper County. The new system will replace an ineffective septic system.
WQ	ALDINE ISD ANN LOUISE ED COMPLEX WWTF	06/04/2000	1:1	$1,500.00	$0.00	$1,500.00	$0.00	$1,500.00	Purchase 48 units of "Learning to be Water Wise," a Technology-Based Education Conservation Program from the National Energy Foundation, and contribute the materials to the Carroll Academy for students to use in their science classes. The "Learning to be Water Wise" package will provide resource actions kits that contain low water flow hardware for installation in the homes of students participating in the program.
WQ	ALEDO CITY OF	04/08/2000	1:1	$15,000.00	$0.00	$15,000.00	$0.00	$15,000.00	Provide wastewater service to 6 low to moderate income families that are currently on septic systems that are 50 yrs old.

WQ	ANGELINA & NECHES RIVER AUTHORITY	08/31/2000	1:1	$19,563.00	$0.00	$19,563.00	$0.00	$19,563.00	Contribution will be used in the Southeast Texas RC&D Wastewater Treatment Assistance project. Low income owners in Jasper County with failing wastewater treatment systems will receive technical and financial assistance to install alternative wastewater treatment systems.
WQ	BAIRD CITY OF	07/03/2000	1:1	$3,000.00	$0.00	$3,000.00	$0.00	$3,000.00	The City of Baird will replace 150 feet of Orangeburg sewer line with new PVC pipe. The Orangeburg line currently drains 7 residences on the 600 block of Cherry Street. The City will replace the old line and route the new line to the main trunk.
WQ	BANDERA CITY OF	11/27/1999	1:1	$9,375.00	$0.00	$9,375.00	$0.00	$9,375.00	Engage a contractor to do a clean up of the Medina River.
WQ	BRYAN CITY OF	07/03/2000	1:1	$8,000.00	$0.00	$8,000.00	$0.00	$8,000.00	The City of Bryan will contribute to Resource Conservation and Development, Inc., for the use in the Big 8 RC&D Wastewater Treatment Assistance Project. Low income owners in Brazos County with failing wastewater treatment systems will receive technical and financial assistance to install alternative wastewater treatment system.
WQ	CEDAR PARK CITY OF	12/26/1999	1:1	$22,500.00	$0.00	$22,500.00	$0.00	$22,500.00	Clean-up 18 illegal dumpsites w/in the city and extra-territorial jurisdiction; eliminating approximately 200 cubic yrds of municipal solid waste.
WQ	CENTERVILLE CITY OF WWTF	11/25/1999	1:1	$3,000.00	$0.00	$3,000.00	$0.00	$3,000.00	Work w/RC&D to develop a constructed wetland in Leon County to treat sewage discharge.

WQ	CHINA CITY OF	12/26/1999	1:1	$7,000.00	$0.00	$7,000.00	$0.00	$7,000.00	Contribute to the Audubon Society to restore and improve the Sabine Woods Sanctuary. This will provide for the removal of non-native Tallow Trees and control of non-native fire-ants in the Sanctuary and reestablish native species.
WQ	COLLINSVILLE CITY OF	02/12/2000	1:1	$4,600.00	$0.00	$4,600.00	$0.00	$4,600.00	Extend sewage treatment service to four low to moderate income familes living outside the city limits who currently utilize inefficient septic systems.
WQ	CREEKSIDE UTILITIES INC	01/31/2000	1:1	$2,000.00	$0.00	$1,000.00	$1,000.00	$1,000.00	Contribution will be used by the Nature Conservancy to assist with restoration of the Galveston Bay Prairie Preserve.
WQ	CRYSTAL CITY CITY OF	06/04/2000	1:1	$6,250.00	$0.00	$6,250.00	$0.00	$6,250.00	Provide water service to low-income resident on East Maverick Street by providing materials to attach the resident to the city water distribution system.
WQ	E I DUPONT DE NEMOURS & COMPANY	08/31/2000	1:1	$22,500.00	$4,500.00	$9,000.00	$9,000.00	$9,000.00	Contribution to the Galveston Bay Foundation to be used for the "Marsh Mania" Project; which will include restoring shoreline elevations, growing plants for shoreline restoration, and planting new habitat.
WQ	EDCOUCH CITY OF	08/26/2000	1:1	$11,250.00	$0.00	$11,250.00	$0.00	$11,250.00	Clean-up various illegal dump sites in and around the city, specifically will collect, remove, and dispose of non-recyclable debris; recycle materials that are recyclable; and post English/Spanish "No Dumping" signs at the affected sites.

WQ	EDINBURG CITY OF	08/26/2000	1:1	$5,313.00	$0.00	$5,313.00	$0.00	$5,313.00	Clean up the illegal dumping along a one mile stretch just north of FM 2812 and one mile west of Highway 281. Specifically will collect, remove and dispose of non-recyclable debris from the specified site; recycle materials where it is feasible; and Post English/Spanish no dumping signs at the site.
WQ	FRISCO CITY OF & NORTH TEXAS MWD	05/22/2000	3.35: 1	$43,875.00	$0.00	$43,875.00	$0.00	$147,000.00	Pilot study of cryptosporidium inactivation and related disinfection of wastewater effluent reused by the City of Frisco using ultraviolet (UV) irradiation. Purpose of study: 1) develop a testing protocol, 2) do bench/ full-scale demonstration work, 3) demonstrate the cost of inactivation at a reliable dose, 4) complete a mouse infectivity study, and 5) prepare public domain reports that show all conclusions and supporting data.
WQ	GATESVILLE CITY OF	06/04/2000	1:1	$5,500.00	$0.00	$5,500.00	$0.00	$5,500.00	Clean-up an illegal dumping site located along the Leon River; remove tree stumps, furniture, tires, barrels, various other illegally dumped solid waste from 1200 feet of the creek waterway; take steps to recycle materials that are capable of being recycled; and dispose of non-recyclable materials in an environmentally-sound manner.
WQ	HAMPSHIRE CHEMICAL CORPORATION	06/04/2000	1:1	$15,000.00	$0.00	$7,500.00	$7,500.00	$7,500.00	Contribution to be used for the Galveston Bay Restoration "Marsh Mania" project; which will include restoring shoreline elevations, growing plants for shoreline restoration, and planting new habitat.

WQ	HARLINGEN CITY OF	12/26/1999	2.99:1	$41,250.00	$0.00	$41,250.00	$0.00	$123,375.00	Create wetlands and ponds over 250 acres of an undeveloped park and adjacent landfill to compliment the Ramsey Wildlife and Nature Park project, which involves the creation of a world birding center.
WQ	HARRINGTON ENVIRONMENTAL SERVICES	07/29/2000	1:1	$2,500.00	$0.00	$1,250.00	$1,250.00	$1,250.00	Contribution will be used in the Bluebonnet RC&D buffer strip project. The project provides assistance to landowners installing native species plant buffer strips along waterways and streams; with a focus on sensitive or ecologically unique waterways and streams.
WQ	HARRIS COUNTY MUD 127	11/25/1999	1:1	$11,875.00	$0.00	$11,875.00	$0.00	$11,875.00	Clean-up municipal solid waste from drainage ditches and easements in the San Jacinto River Basin segment no. 1014 (one sq. quarter mile area of the Brentwood subdivision, Harris Co.). The project will remove illegally dumped solid wastes, recycle items and dispose of non-recyclable items. A fence will be installed at the site to deter future illegal dumping.
WQ	HILLSBORO CITY OF	06/18/2000	1.88:1	$20,000.00	$4,000.00	$16,000.00	$0.00	$30,000.00	Purchase native plants, bushes, and trees to revitalize wetlands around Katy Lake; a natural migratory path and nesting area for many species of water fowl. Specifically, the City of Hillsboro will: purchase and plant native plants, bushes and trees ; create a wilderness trail in the area; and construct an observation tower which will overlook Katy Lake and the wetlands area.

WQ	HOUSTON CITY OF	02/26/2000	1:1	$10,000.00	$0.00	$10,000.00	$0.00	$10,000.00	Contribution will be used by Harris County to do environmental clean-up projects on public property and waterways in the county. Harris County will utilize inmates provided by the Texas Department of Criminal Justice to remove exotic plant life from wetland, plant native species, and clean-up illegally dumped solid waste from various areas in the county.
WQ	LAREDO CITY OF	05/22/2000	1:1	$7,000.00	$0.00	$7,000.00	$0.00	$7,000.00	Clean-up the illegal dumping at the South Bartlett and Chacon Creek site. Will include: collecting, removing, and disposing of non-recyclable debris from the specified site; recycling materials where it is feasible; post English/Spanish no dumping signs at each site; not charge the SEP project for the disposal of the waste; and focusing resources on eliminating the problems which result in these illegal dumps and increase enforcement against violators of federal, state, and local environment laws and regulations.
WQ	MATAGORDA COUNTY WCID 6	08/11/2000	1:1	$10,000.00	$0.00	$10,000.00	$0.00	$10,000.00	Extend drinking water service to twelve (12) low-income homeowners currently using shallow wells. Water line will be installed with taps.

WQ	MILDRED ISD	06/18/2000	1:1	$26,875.00	$0.00	$26,875.00	$0.00	$26,875.00	Implement a wildlife restoration project on 25 acres of undeveloped school district property that was long ago stripped of native forest. Mildred ISD will plant native trees, plants, grasses, and wild-flowers. In addition, the project will construct and install bird, bat, and mammal feeders within the project area.
WQ	NEWARK CITY OF	06/04/2000	1:1	$4,500.00	$0.00	$4,500.00	$0.00	$4,500.00	The City of Newark will enter into an "Interlocal Agreement for Participation in Fort Worth's Environmental Collection Center Household Hazardous Waste ("HHW") Program" and contribute to the City of Fort Worth in order to facilitate one or more HHW Collection Days.
WQ	NORIT AMERICAS INC	08/26/2000	1:1	$34,584.00	$0.00	$17,292.00	$17,292.00	$17,292.00	Install three new aerobic waste treatment systems at Lake Murvaul. The aerobic system will benefit the East Texas Area Council for the Boy Scouts of America, who operate a campground, know as Camp Pirtle, on Lake Murvaul. The new waste treatment systems will replace ineffective septic tanks at the main headquarters, the staff housing building, and the Nelson building.

WQ	ODFJELL TERMINALS (BAYTANK) INC	05/01/2000	1:1	$10,000.00	$0.00	$5,000.00	$5,000.00	$5,000.00	Contribution to the City of Seabrook will be used to assist the city in its purchase and installation of an AM broadcast transmitter known as the "Public Information Series". The transmitter will be part of a city wide emergency alarm / notification system, and will broadcast emergency information to the public in the event there is a chemical incident or similar emergency.
WQ	ORANGE CITY OF - BANCROFT WWTP	10/10/1999	1:1	$3,000.00	$0.00	$3,000.00	$0.00	$3,000.00	Contribute $3,000 to Orange County to be used to assist low income families that can not afford to replace, or upgrade wastewater systems that pose a risk to the health and safety of the residents and the environment.
WQ	ORANGE COUNTY WCID 1	02/12/2000	1:1	$5,000.00	$0.00	$5,000.00	$0.00	$5,000.00	Extend wastewater treatment services to a low income homeowner with no charge to the owner.
WQ	OXID LP	08/31/2000	1:1	$5,625.00	$0.00	$2,812.00	$2,813.00	$2,812.00	Contribution will be used in the Coastal Prairie Conservation Initiative - Safe Harbor program which seeks to protect prairie ecosystems through the use of best management practices.

WQ	PALMER CITY OF	06/18/2000	1:1	$16,500.00	$0.00	$16,500.00	$0.00	$16,500.00	Clean-up an illegal dumping site located along a creek that flows south of the city. Will include: removing tree stumps, furniture, tires, barrels and various other illegally dumped solid waste from 1200 feet of the creek waterway; recycling materials that are capable of being recycled; and disposing of non-recyclable materials in an environmentally-sound manner.
WQ	PAUL H PEWITT SCHOOLS	06/18/2000	1:1	$8,750.00	$0.00	$8,750.00	$0.00	$8,750.00	Purchase 279 units of "Learning to be Water Wise", A Technology-Based Education Conservation Program from the National Energy Foundation. The purchase will allow students in grades 4 - 7 to use the program kits in their science classes.
WQ	PINECREEK VILLAGE INC (PINE CREEK MHP)	05/01/2000	1:1	$7,500.00	$0.00	$3,750.00	$3,750.00	$3,750.00	Contribution to the City of Northlake to be used to clean up illegal dump sites within the city and its extraterritorial jurisdiction.
WQ	PORT OF HOUSTON AUTHORITY	12/26/1999	1:1	$16,875.00	$0.00	$16,875.00	$0.00	$16,875.00	Supplement the Bayport Demonstration Marsh ditching and levee breaching project with additional ponds.
WQ	RANGER CITY OF	06/18/2000	1:1	$8,000.00	$0.00	$8,000.00	$0.00	$8,000.00	Repair damage and erosion on a retaining wall in the drainage canal of Willow Park. The canal drains storm-water runoff into a major creek on the north side of the city. Will restore 60 feet of canal wall.

WQ	RIESEL CITY OF	01/31/2000	1:1	$7,350.00	$0.00	$7,350.00	$0.00	$7,350.00	Implement a city wide clean-up project and recycling program. Will contract with BFI to: implement curbside recycling; purchase recycling containers for all BFI service addresses;pay monthly service fees associated w/the curbside recycling program for 12 months;do one community wide solid waste clean-up; and advertise and explain the programs to citizens.
WQ	SOLVAY POLYMERS INC	04/08/2000	1:1	$18,750.00	$0.00	$9,375.00	$9,375.00	$9,375.00	Contribution will be used by the Nature Conservancy to restore and preserve Moses Slough Wetlands at the Galveston Bay Coastal Prairie Preserve.
WQ	ST ANDREW'S EPISCOPAL SCHOOL	09/26/1999	1:1	$2,000.00	$400.00	$1,600.00	$0.00	$1,600.00	Purchase a Technology- Based Education Conservation Program from the National Energy Foundation called "Learning to be Water Wise", providing resource action kits to be used by the fifth grade science classes.
WQ	TEXAS STATE OF PARKS AND WILDLIFE	05/22/2000	1.71:1	$3,500.00	$0.00	$3,500.00	$0.00	$6,000.00	Construct a low-water dam to increase the viability of the 300 acre San Jacinto Marsh. The project will result in the capture of fresh water runoff and create a marsh pond half an acre in size. The dam will also keep the fresh water runoff separated from the salt water areas of the marsh. The pond will be stocked with fresh water plants and marine life.

WQ	TIMBERWILDE WWTP	06/04/2000	1:1	$2,700.00	$0.00	$1,350.00	$1,350.00	$1,350.00	Contribution will be used by Nature Conservancy for the acquisition of herbicides to be used in conjunction with the Galveston Bay Prairie Preserve project which will restore 162 acres of coastal prairie by killing non-native Chinese Tallow Trees.
WQ	VENUS CITY OF	11/07/1999	1:1	$26,000.00	$0.00	$26,000.00	$0.00	$26,000.00	Sponsor a series of household hazardous waste collection days for the City of Venus. Will contract with the City of Fort Worth to collect, transport, and dispose of household hazardous waste.
WQ	WESTLAKE HIGH SCHOOL	08/26/2000	1:1	$1,500.00	$300.00	$1,200.00	$0.00	$1,200.00	Purchase 38 units of "Learning to be Water Wise", a Technology-Based education Conservation Program from the National Energy Foundation, and contribute the materials to the Carroll Academy for students to use in their science classes.
WQ	WOODCREEK UTILITIES INC	11/07/1999	1:1	$2,500.00	$0.00	$1,250.00	$1,250.00	$1,250.00	Extension of wastewater treatment service to a community theater outside of its service area.
TOTAL: 87 ADMINISTRATIVE ORDERS WITH SEPs FOR FY2000				$2,269,416.00	$72,311.00	$1,326,118.00	$870,987.00	$1,586,393.00	

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Appendix 4: Summary of Supplemental Environmental Projects Approved in Administrative Orders Issued in Fiscal Year 1999

Program	Entity Name	Order Effective Date	Ratio	Assessed Penalty	Deferred Penalty	SEP Conditional Offset	Settled Penalty	SEP Cost	SEP DESCRIPTION
AGRI	PILGRIMS POULTRY GP STRUBES 1 & 2	07/26/1999	1:1	$31,250.00	$0.00	$15,625.00	$15,625.00	$15,625.00	Contribute to the City of Pittsburg to supplement the cost of upgrading the City's treatment plant by installing new higher efficiency rotating disk aerators.
AIR	CHEVRON USA PRODUCTS COMPANY	08/31/1999	1:1	$200,000.00	$0.00	$200,000.00	$0.00	$200,000.00	Conduct a purchase/recycling program for high emissions vehicles. This "Scrappage Program" will result in purchasing/recycling of pre-1986 vehicles which have been contributing to the airshed's not-attainment status for the last year.
AIR	ENGINEERED CARBONS INCORPORATED	05/19/1999	1:1	$140,000.00	$0.00	$70,000.00	$70,000.00	$70,000.00	Purchase of two low emission vehicles for the City of Baytown to replace two existing vehicles that do not meet low emission standard.
AIR	LOUISIANA PACIFIC CORP	02/19/1999	1:1	$13,500.00	$0.00	$6,750.00	$6,750.00	$6,750.00	Contribute to Orange County for the installation, or upgrade, of on-site septic system through grants to low income families.
AIR	OSO COTTON BURRS INC	08/20/1999	1:1	$13,125.00	$0.00	$6,562.00	$6,563.00	$6,562.00	Contribute a minimum of $6,562.00 worth of composted cotton burrs, ready for immediate use to non profit organizations for soil amendment.

AIR	PM AG PRODUCTS INC	01/27/1999	16:1	$18,125.00	$0.00	$9,062.00	$9,063.00	$80,000.00	Construct on-site drainage improvement and runoff containment. This will include the excavation and expansion of the detention pond and catch basin, the extension and pavement of diking around the tank farm and diversion of runoff into the ponds. They will also place concrete around the outdoor processing areas.
AIR	SAFETY KLEEN SYSTEMS INCORPORATED	08/31/1999	1:1	$3,750.00	$750.00	$1,500.00	$1,500.00	$1,500.00	Sponsor a household hazardous waste (HHW) collection day for the City of Denton; will collect, transport and dispose of HHW with no charge to the City.
AIR	SOUTH TEXAS ELECTRIC COOPERATIVE INC	05/19/1999	1:1	$10,000.00	$0.00	$5,000.00	$5,000.00	$5,000.00	Purchase and donate emergency response equipment to the City of Victoria Fire Dept.
AIR	VALLEY BY PRODUCTS	06/25/1999	3.54:1	$8,125.00	$0.00	$4,062.00	$4,063.00	$14,400.00	Collect, recycle and dispose of waste cooking oil from 15 low income schools that do not currently have collection service.
AIR	VINTAGE CAR WASH	08/20/1999	1:1	$2,500.00	$0.00	$1,250.00	$1,250.00	$1,250.00	Contribute to the Audubon Society for the enhancement of Feather Lake for the restoration of native plant species.
IHW	AMERADA HESS CORPORATION	08/31/1999	1:1	$278,063.00	$0.00	$139,000.00	$139,063.00	$139,000.00	Contribute to Coastal Conservation Association(CCA) to be used in the Big Bay Debris Clean-up, to assist with the removal of trash and debris and hazardous materials from the Corpus Christi Bay.

IHW	CHAMPION TECHNOLOGIES INC	07/09/1999	1:1	$26,100.00	$5,220.00	$10,440.00	$10,440.00	$10,440.00	Purchase emergency response equipment for the Fresno Volunteer Fire Department. At minimum, purchase lower emissions limit carbon monoxide & oxygen detectors and Hydrocarbon Hydrogen sulfide detectors, foam nozzles(6) and foam educator packs(2), a confined space rescue kit and a spill control kit.
IHW	CHANNEL SHIPYARD COMPANY INC	12/14/1998	1:1	$36,080.00	$7,216.00	$14,432.00	$14,432.00	$14,432.00	Removal of an abandoned barge and illegally dumped tires and metals of the shore of the Northern Ship Channel.
IHW	COMMER-CIAL MANUFAC-TURING CO INC	02/19/1999	1:1	$9,460.00	$1,892.00	$3,784.00	$3,784.00	$3,784.00	Contribute to Nature Conservancy for the purchase of land in an effort to Preserve and the remnants of Blackland Prairie.
IHW	DEAN LUMBER COMPANY	08/31/1999	1:1	$12,000.00	$0.00	$6,000.00	$6,000.00	$6,000.00	Contribute RC&D to install constructed wetlands at two low-income residences in or near the City of Gilmer. These wetlands will be used to treat sewage discharge.
IHW	SCHU-MACHER COMPANY INC	12/30/1998	1:1	$26,500.00	$0.00	$13,250.00	$13,250.00	$13,250.00	Contribute to Scenic Galveston, Inc., for the purchase and clean up of an estuary along I-45. Includes removing debris from the wetland and grading the rubble of a former café and bait shop for use as public viewing area.
IHW	WITCO CORPORATION	05/19/1999	1:1	$20,300.00	$4,060.00	$8,120.00	$8,120.00	$8,120.00	Contribute to the City of Fort Worth to assist with the collection and disposal of household hazardous waste.
MM	NEWELL RECYCLING OF SAN ANTONIO L P	06/08/1999	1:1	$116,250.00	$0.00	$58,125.00	$58,125.00	$58,125.00	Provide "Learning to be WaterWise," a Technology-Based Education Conservation Program for elementary and middle schools in the surrounding community.

MSW	BROWNSVILLE CITY OF - LANDFILL	03/08/1999	1:1	$12,500.00	$0.00	$12,500.00	$0.00	$12,500.00	Bank stabilization and revegetation of 2 resaca lakes. Resaca lakes are crescent shaped lakes created as erosion and deposits of soil change a river's course and cut the lakes off from the main flow of the river. The resaca lakes in this project are adjacent to the Rio Grande. The project includes the construction of a concrete weir and the addition of a windmill to enhance water quality of one of the resaca lakes.
MSW	GROVETON CITY OF LANDFILL	08/06/1999	1:1	$4,375.00	$0.00	$4,375.00	$0.00	$4,375.00	Contribute to the RC&D to assist with the purchase of construction materials for installation of wetlands in the Trinity County, which will be used for the treatment of sewage.
MSW	LAREDO CITY OF LAREDO LANDFILL	04/20/1999	1:1	$66,875.00	$0.00	$66,875.00	$0.00	$66,875.00	Collect, remove and dispose of debris from several illegal dump sites and implement a prevention program to reduce future dumping.
MSW	PINELAND CITY OF TRANSFER STATION	08/06/1999	1:1	$4,375.00	$0.00	$4,375.00	$0.00	$4,375.00	Install a pressure sewer system to provide sewer service to three residences outside the city, replacing septic systems currently in use.
MSW	ROMA CITY OF - LANDFILL	06/08/1999	1:1	$8,750.00	$0.00	$8,750.00	$0.00	$8,750.00	Provide wastewater collection service to 3 homes in the Jose Noel Cruz Colonia. This will include: the cost of PVC pipes, manholes, service connections, a yard lines and a clean out; the labor and equipment necessary to extend services to the community.
MSW	SEYMOUR CITY OF - CITIZEN CONVENIENCE CTR	01/27/1999	1:1	$5,000.00	$0.00	$5,000.00	$0.00	$5,000.00	Construct a building for use as a recycling facility, purchase recycling container, and purchase a loader that will be used to load the recyclable materials into a roll-off unit.

PST	ARANSAS PASS CITY OF PUBLIC WORKS	08/31/1999	1:1	$5,000.00	$0.00	$5,000.00	$5,000.00	$5,000.00	Contribute to the Big Bay Debris Clean-Up Project to remove abandoned vessels, pilings, markers, dredge pipe, and other hazards from the waters and beaches.
PWS	CORPUS CHRISTI CITY OF	08/06/1999	1.09:1	$14,175.00	$0.00	$14,175.00	$0.00	$14,175.00	Clean up litter from the Upper Laguna Madre Shoreline, the shoreline of Oso Bay, and along the Oso Creek.
WQ	AKZO NOBEL CHEMICALS INC	07/26/1999	1:1	$5,000.00	$1,000.00	$2,000.00	$2,000.00	$2,000.00	Contribute to the Nature Conservancy for the Galveston Bay Prairie Preserve. This contribution will acquire and preserve additional rare coastal prairie lands to provide habitat for the endangered Attwater Prairie Chicken.
WQ	ARROWHEAD RANCH ESTATES	04/09/1999	2:1	$42,875.00	$0.00	$42,875.00	$0.00	$50,793.00	Collect, remove and dispose of debris in the Wichita River. This project will also include the expansion of the river Bend Nature Center's wetland educational demonstration and habitat site and install educational displays in the area.
WQ	AZLE CITY OF	10/06/1998	2.13:1	$3,750.00	$0.00	$3,750.00	$0.00	$8,000.00	Ash Creek Clean-up and remediation project.
WQ	CENTER CITY OF	08/20/1999	1:1	$15,750.00	$0.00	$15,750.00	$0.00	$20,000.00	Provide extension of wastewater services to six residences currently using septic tanks.
WQ	EDGEWOOD CITY OF	07/26/1999	1.86:1	$3,750.00	$0.00	$3,750.00	$0.00	$7,000.00	Extend wastewater treatment service to two sites that currently use on site sewage facilities.
WQ	ELDORADO CITY OF	12/14/1998	1.33:1	$3,750.00	$0.00	$3,750.00	$0.00	$5,000.00	Clean up of an illegal dump site and reveggetation of the site which is near a minority neighborhood. Some of the materials removed will be recycled.
WQ	GALVESTON COUNTY WCID 1	07/26/1999	1:1	$3,000.00	$0.00	$3,000.00	$0.00	$3,000.00	Contribute to the Galveston County Health District's household hazardous waste collection program.

WQ	GEORGETOWN CITY OF BLUE HOLE PARKING LOT	07/09/1999	2.45:1	$3,000.00	$600.00	$2,400.00	$0.00	$5,900.00	Sponsor a cleanup of the South San Gabriel River, and will Sod areas along the South San Gabriel River with Buffalo Grass, a grass with low watering requirements, to prevent erosion and pollution.
WQ	GOREE CITY OF	06/08/1999	1:1	$6,875.00	$0.00	$4,980.00	$1,895.00	$4,980.00	Extend wastewater treatment services to three residential homes. The three residents will not be charged for any of the cost of extending or hooking up to the treatment system.
WQ	HIDALGO CITY OF	05/26/1999	1:1	$15,750.00	$0.00	$15,750.00	$0.00	$19,500.00	Collect, remove and dispose of debris from the Hildalgo County Irrigation District No. 2 main canal. This will include removing tires for recycling and collecting and transporting other solid wastes to the city landfill for disposal.
WQ	KERENS CITY OF - RUSH CREEK WWTF	07/09/1999	1.48:1	$8,750.00	$0.00	$8,750.00	$0.00	$13,000.00	Purchase a wood chipper, repair a city owned rear-loading compactor trash truck and purchase collection bins to implement a city wide composting program.
WQ	MAHARD EGG FARM INC	04/20/1999	1:1	$7,000.00	$0.00	$3,500.00	$3,500.00	$3,500.00	Contribute to Denton County to assist low income families that can not afford to replace, or upgrade, systems that pose a risk to the health and safety of the residents and the environment.
WQ	MINERAL WELLS CITY OF	03/25/1999	2.41:1	$9,375.00	$0.00	$9,375.00	$0.00	$22,594.00	Clean up of 3/5 mile stretch of the Crystal Canal. This will include dredging the canal, removing trash, debris and standing water pockets, and erosion control measures will be implemented in key areas.

WQ	MONTGOMERY COUNTY AIRPORT	03/08/1999	1:1	$7,500.00	$0.00	$7,500.00	$0.00	$7,500.00	Allocate money from its budget to assist with repairs, modifications, or upgrades of on-site septic systems in the County that pose a risk to the health and safety of the residents and the environment.
WQ	PORT ARTHUR CITY OF	04/20/1999	1.24:1	$56,250.00	$0.00	$56,250.00	$0.00	$70,410.00	Extend wastewater treatment services to seven houses in a neighborhood in the western part of the city. Home owners will not be charged any fees associated with the extension of service.
WQ	RHOME CITY OF	07/26/1999	1:1	$12,500.00	$0.00	$12,500.00	$0.00	$12,500.00	Contract with the City of Fort Worth to participate in Fort Worth's Household Hazardous Waste Program.
WQ	VAN ALSTYNE CITY OF	05/26/1999	2:1	$7,500.00	$0.00	$7,500.00	$0.00	$15,000.00	Collect, remove and dispose of debris from an abandoned dump site near Twin Creek, a tributary to the west prong of Sister Grove Creek.
WQ	VILLAGE OAKS MOBILE HOME COMMUN-ITY	08/31/1999	7:1	$23,760.00	$0.00	$11,880.00	$11,880.00	$84,000.00	Collect, remove and dispose of debris from an abandoned dump site near Twin Creek, a tributary to the west prong of Sister Grove Creek.
TOTAL: 44 ADMINISTRATIVE ORDERS WITH SEPs FOR FY99				$1,322,313.00	$20,738.00	$909,272.00	$397,303.00	$1,129,965.00	

David Frederick was admitted to the Texas bar in 1974. He practices before Texas state courts and administrative agencies, Texas U.S. District Courts, the U.S. Courts of Appeals for the Fifth and District of Columbia Circuits and, rarely, the U.S. Supreme Court. Since the early 1980s, he has practiced on the "plaintiffs'" side of the docket, representing local governments, landowners, citizen groups, and others facing environmental threats; this representation includes some defense of clients' interests before the Texas Legislature. Mr. Frederick is among the attorneys currently representing Sierra Club in its series of suits to preserve the endangered species living in the out-flow of the Edwards Aquifer; he represented Sierra Club and others in their 1999 challenge to EPA's delegation to Texas of the NPDES program; he was the lead attorney for those who successfully opposed the proposed state radioactive waste dump in Sierra Blanca; and he has represented numerous individuals and environmental organizations during the past 20 years in opposition to highways, transmission lines and power plants, industrial waste water discharges, and miscellaneous air pollution sources.

Tamra-Shae Oatman

Small Business and Local Government Assistance Section
Texas Natural Resource Conservation Commission

Ms. Oatman holds a degree in Management from the University of Texas at Austin.

Ms. Oatman is the section manager of the Small Business and Local Government Assistance section at the TNRCC. Ms. Oatman initiated the nation's first statewide Small Business Assistance Program. She represents small business and local government concerns to local and state officials and the EPA. She is also responsible for community/government relations with business and trade associations. Ms. Oatman oversees four regional and one state advisory committee.

Prior to joining the TNRCC in 1992, Ms. Oatman was a consultant/partner at Oatman-Pilny in Austin, Texas. She was responsible for managing all aspects of a small business during completion of multiple projects. From 1983-1985 she was the Director of Personnel and Staff Development at the Texas State Treasury. Ms. Oatman has a strong customer service philosophy and over 15 years management experience including extensive experience managing start up operations.

BIOGRAPHICAL SKETCH FOR KATHY MONTGOMERY

Kathy Montgomery is a Senior Counsel in the Texaco Inc. Corporate Legal Department. She provides legal counsel on matters pertaining to environmental compliance and on environmental issues related to new business development. Her practice focuses on regulatory compliance in all areas of environmental law that may impact a facility or project, including air, water, and hazardous waste issues. Kathy Montgomery has extensive experience in regulatory development activities, including preparation of comments on proposed rulemaking, particularly in the hazardous waste and air areas. She is Texaco's representative on several industry committees, and is Chairperson of the American Petroleum Institute RCRA/CERCLA Steering Committee. She also has extensive experience in environmental, health, and safety issues associated with acquisitions, divestitures, and mergers, including due diligence and regulatory compliance issues such as transfer of permits. Other areas of expertise include compliance counseling for operations and remediation at closed and divested (for which liability was retained) facilities; and handling permit appeals, enforcement actions, and other adverse actions.

Additional Legal Activities: She is membership Vice-chair of the American Bar Association Hazardous Waste and Superfund Committee. She is also a member of the Air Force Reserve, holding the rank of Lt. Colonel, and has been extensively involved in base closure activities, including privatization, and redevelopment.

Education: B.A., University of Tennessee, 1978; Master's minor in Ecology and J.D., University of Tennessee, 1981; Master of Studies in Environmental Law, National Environmental Law Center, Vermont Law School, 1982.

Admitted: Tennessee Bar; New Jersey Bar (inactive); U.S. District Court for the Southern District of Texas; U.S. District Court for the Eastern District of Texas; U.S. District Court for the Western District of Texas; U.S. District Court for the Eastern District of Tennessee; Sixth Circuit Court of Appeals; Fifth Circuit Court of Appeals; and the United States Court of Military Appeals.

Legal Work Experience: National Wildlife Federation (intern), 1981; 1982 World's Fair Corporation, Knoxville, Tennessee; Judge Advocate, United States Air Force, 1983-90; United States Air Force Reserve, 1990-Texaco Inc., 1990-

Contact Information: Room 3922; 1111 Bagby Street, Houston, TX 77002
Telephone- (713)752-6050; Fax- (713)752-7700; Email- montgka@texaco.com

INNOVATIVE TECHNOLOGY
(A REVOLUTIONARY APPROACH TO CREATING A CLEAN ENVIRONMENT)

By Kathy Montgomery
Senior Counsel
Legal Department
Texaco Inc.
August 2, 2001
(13th Annual Texas Environmental Superconference)

Pollution prevention and innovative technology go hand-in-hand. Preventing pollution and waste from being created is the optimal approach to protecting human health and the environment and to protecting natural resources.

Law and Regulations

This concept has been recognized federally by the federal Pollution Prevention Act of 1990. In addition, many of the environmental laws also contain pollution prevention, waste minimization or recycling requirements. The Pollution Prevention Act of 1990 also recognized the importance of technical assistance and innovative technology to achieving pollution prevention goals. This concept was carried forward in the federal Clean Air Act Amendments of 1990, which set forth a requirement to establish a mechanism to provide governmental technical assistance to the regulated community. The United States Environmental Protection Agency established the Technology Innovation Office in 1990 to assist in carrying out these requirements.

The State of Texas also recognizes the importance of pollution prevention. In fact, Texas law states that pollution prevention is the preferred waste management approach for the regulated community in Texas. The TNRCC Office of Pollution Prevention was established in 1992 to carry out the requirements of the state Waste Reduction Policy Act (Senate Bill 1099) and the Omnibus Recycling Act (Senate Bill 1340). (Also see the Solid Waste and Disposal Act- Texas Health and Safety Code, Chapter 361). This office was renamed the Small Business and Environmental Assistance Division (and placed within the Office of the

TNRCC Executive Director) in September 1999. Notwithstanding its name, this division provides assistance to Texas industry as well as Texas small business. The state innovative technology program, which promotes the use of clean technologies to reduce pollution, is within this division.

New programs promoting technology and pollution prevention were authorized by the state legislature during the last session. These include programs established in HB 2912, SB 5 and SB1725. These requirements establishing the technology and pollution prevention programs take effect September 1, 2001.

HB 2912, also known as the TNRCC Sunset Review bill, establishes a pollution prevention advisory committee. Specifically Section 4.04 of HB2912 amends Section 361.0215 of the Health and Safety Code as follows:

"Section 361.0215. POLLUTION PREVENTION ADVISORY COMMITTEE.

(a) The pollution prevention advisory committee is composed of nine members with a balanced representation of environmental and public interest groups and the regulated community.

(b) The committee shall advise the commission and interagency coordination council on:

(1) the appropriate organization of state agencies and the financial and technical resources required to aid the state in its efforts to promote waste reduction and minimization;

(2) the development of public awareness programs to educate citizens about hazardous waste and the appropriate disposal of hazardous waste and hazardous materials that are used and collected by households;

(3) the provision of technical assistance to local governments for the development of waste management strategies designed to assist small quantity generators of hazardous waste; and

(4) other possible programs to more effectively implement the state's hierarchy of preferred waste management technologies as set forth in Section 361.023(a).

(c) The committee shall advise the commission on the creation and implementation of an incentive-and performance-based structure for the regulation of air and water quality and solid waste management as set out in Section 5.752, Water Code.

(d) The committee shall report quarterly to the commission on its activities, including suggestions or proposals for future activities and other matters that the committee considers important."

In addition, innovative regulatory programs and incentives are established within HB 2912, Article 4, PERFORMANCE-BASED REGULATION. These innovative regulatory programs and incentives are also required to include a focus on pollution prevention and technical assistance. Specifically Section 5.753 of HB 2912 provides as follows:

> "COORDINATION OF INNOVATIVE REGULATORY PROGRAMS AND INCENTIVES.
>
> (a) The commission shall designate a single point of contact within the agency to coordinate all innovative regulatory programs and incentives.
>
> (b) The designated coordinator shall:
>
> (1) inventory, coordinate, and market all innovative regulatory programs and incentives;
>
> (2) provide information and technical assistance to regulated entities participating in or interested in participating in those programs and incentives; and
>
> (3) work with the pollution prevention advisory committee to assist the commission in integrating the concepts of regulatory innovation and incentive- and performance-based regulation into its daily operations, including;
>
> (A) program administration;
>
> (B) strategic planning; and
>
> (C) staff training.

SB 5 focuses on air pollution and establishes the Texas Emissions Reduction Plan. The Legislature approved grants and financial incentives for emissions reductions for both mobile sources and industrial stationary sources within bill. Specifically this law establishes a variety of incentive programs aimed at cutting pollution from mobile sources, including diesel construction equipment and establishes a technology research and development program to by implemented by the Texas Council on Environmental Technology. This latter program is to support the development of commercially viable emissions-reduction technologies.

SB 1725 creates the Texas Fuel Cell Commercialization Initiative and provides $95 million in incentives to promote the development and installation of clean, small-scale fuel cells for power generation and small combined heat and power fuel cell systems for Texas residents and businesses. The State Energy Conservation Office is required to oversee this Initiative must form a fuel cell advisory committee to assist in the

development of the Initiative program. The State Energy Conservation Office must adopt the necessary rules to implement the Initiative publicly no later than January 1, 2003.

Governmental Agencies and Programs

The United States Environmental Protection Agency Technology Office is the primary focal point within the agency for technology innovation. The office acts as an advocate for new technologies and has established a number of programs to encourage the development of new environmental technologies. Much of the work in this office focuses on technology used for treat pollution and to remediate contaminated waste sites, soils, and water.

The program media offices and the United States Environmental Protection Agency Regional Offices also provide technical assistance to the regulated community. Some also have established pollution prevention offices and/or encourage development and use of environmentally-beneficial technologies. Envirosene was established by on the United States Environmental Protection Agency's web site as a single repository for pollution prevention and other information and data bases.

A particular program which the United States Environmental Protection Agency has established deserves mention at this point- Project XL. Project XL ("eXcellance and Leadership), is a national pilot program which allows the regulated community and state and local governments to develop propose projects or programs which will provide a better or more cost-effective way of achieving protection of human health and the environment. The United States Environmental Protection Agency will issue necessary authority and provide regulatory and program flexibility to implement the project or program on an experimental basis. One of the selection criteria for approval of a project or program in Project XL is whether the proposed project or program will achieve innovation and/or pollution prevention.

Within the State of Texas, the TNRCC Small Business and Environmental Assistance Division of the Office of the Executive Director is the primary focal point for pollution prevention and innovative technology. The toll free-telephone number for this office is 1-800-447-2827. The Pollution Prevention and Industry Assistance section is within this division. Programs include Innovative Technology, Clean Texas, Waste Reduction Planning, and RENEW/Material Exchange. The innovative technology program promotes the use of clean, efficient technologies to reduce pollution.

The Small Business and Environmental Assistance Division also publishes a case study compendium containing brief summaries of projects for reducing waste/pollution generation and increasing cost savings. The summaries are submitted by facilities or businesses within the state of Texas. Any Texas facility or business may submit a case study. After approval, the case study becomes public information, is included in a case study book and is also posted to the Southwest Pollution Prevention Clearinghouse web site at http://p2.utep.edu/. The studies are published in the TNRCC Case Study Compendium entitled "Pollution Prevention Ideas from Texas Industries".

Another program in Texas which can encourage pollution prevention and innovative technology is the property tax exemption. Article VIII, Section 1-1 of the Texas Constitution provides a property tax exemption for property a facility installs in response to an environmental rule, regulation, or law. In order to obtain the tax exemption, property owners must apply to the TNRCC for a determination of whether the property is used for pollution control. If the TNRCC issues a positive use determination for the property, the facility owner may take the determination to the local county tax appraisal district and obtain the property tax exemption.

Several other agencies within the state of Texas also have pollution prevention and/or innovative technology programs, including the Texas Railroad Commission and the Texas State Energy Conservation Office. There are also programs which promote pollution prevention and/or innovative technology which are partnerships between state agencies and the private sector. One such program deserving mention is the Texas Fuel Cell Partnership. The fuel cell partnership includes Texaco Energy Systems, Inc., TNRCC, the Texas State Energy Conservation Office, the Texas Railroad Commission, the port of Texas, the Houston Advance Research Center, Air Products, Inc., DCH Technology Inc., IPS MeteoStar, and UNOCAL, Inc. This pilot project is designed to demonstrate the reliability of fuel cells and the benefits of fuel cell usage to air quality and energy conservation. Information regarding the Texas Fuel Cell Partnership may be obtained from Texaco Energy Systems, Inc. or any of the above agencies. In addition, information regarding the Texas Fuel Cell Partnership, including technical information about fuel cells, may be obtained from the web at http:www.tnrcc.state.tx.us.

Regulatory Impediments to Innovative Technology

Innovative Technology can be divided into two basic categories: Process and Pollution Treatment. Process innovative technology is using a process to reduce or avoid the generation of waste, including emissions.

Pollution treatment innovative technology is using innovative technology to address the pollution that has been created. This can be in the form of "end-of-pipe/stack" treatment or remediation of contaminated waste, water, or soil.

All too often innovative technology is viewed by government regulators as a treatment or remediation tool. This is especially true of the United States Environmental Protection Agency. Pollution treatment innovative technology is generally used successfully within the framework of existing regulations. However, the existing regulations often present an obstacle to the successful use of process innovative technology.

In order to encourage the development and use of innovative process technology, government agencies need to create internal champions who can assist with gaining the recognition throughout the agency program areas that such technology doesn't fall within the scope of the existing regulations or who can assist in otherwise obtaining approval for such use. The TNRCC innovative program group has acted in such a role for certain projects and sufficient staffing needs to be kept available for them to continue to act in this role.

The existing laws and new laws which were passed within this last legislative session also need to focus and encourage process innovative technology, rather than focusing on pollution control technology. For example, the property tax exemption for property that a facility installs in response to an environmental rule, regulation, or law, should be considered for situations in which innovative process technology is installed which avoids or minimizes the generation of pollution, not just for situations where the facility installs equipment to control pollution. To do otherwise provides a disincentive for a facility to install innovative technology which avoids or minimizes the generation of pollution.

The same is true on the federal level. Project XL provides only temporary authorization for an experimental project. A company needs long term authorization before investing millions of dollars into a process innovative technology. Thus Project XL doesn't provide the solution necessary to encourage most innovative process technology.

In order to further illustrate the need for environmental agency encouragement and elimination of regulatory roadblocks, this paper examines two types of innovative process technology: gasification and fuel cells.

Gasification

Gasification is a process involving partial oxidation in a reducing atmosphere of organic material at high temperature and pressure. This chemical conversation breaks the organic material down to the molecular level to produce a synthesis gas, primarily H_2 and CO. Any sulfur is recovered in from the raw synthesis gas and sold as elemental sulfur. Nonorganic solids are collected as a non-leached solid residue.

Gasification is a commercially proven technology which has been used for many years worldwide. Texaco has a proprietary gasification process and is a world leader in gasification, with more facilities and licenses than any other company. Although there are several other types of commercially proven gasification processes, I have included a general diagram of the Texaco gasification system as an attachment to further illustrate this process. This diagram is generally descriptive of slagging gasification processes. (For further technical information on gasification, contact Texaco Inc (for information regarding Texaco gasification) or the Gasification Technology Council at (703) 276-0110(for general information on world wide gasification and information regarding specific companies.)

Gasification can use a variety of feedstocks to produce synthesis gas, including coal, oil, petroleum coke, sludges, and biomass. The process creates a synthesis gas which can be used in refinery and chemical process. The synthesis gas can also serve as a clean-burning fuel. Many facilities used synthesis gas for both purposes.

Since gasification can use high-sulfur coal, oils, and similar feedstock and produce a clean-burning synthesis gas in which almost all sulfur has been removed, the benefits in meeting Clean Air Act requirements and goals are obvious. Yet, rather than encouraging the use of this technology, the United States Environmental Protection Agency has attempted to impose requirements which are not applicable and have no environmental benefits.

For example, at a refinery in Delaware constructed a gasification co-generation facility with a combined cycle turbine to produce clean-burning synthesis gas from coal and petroleum coke feedstock, enabling the shutdown of a coal-fired power plant and reducing air emissions of SO_2. Region 3 of the EPA asserted that the synthesis gas was a refinery fuel gas and those new source performance standards applied. The EPA headquarters office concurred in that interpretation. Texaco Inc. and Star Enterprise sued the EPA in regard to this interpretation and won. (Star Enterprise and Texaco Inc. v. EPA, No. 98-6321, 2000 WL 1818329 (3rd. Cir., Dec. 7, 2000)) The Court affirmed that the synthesis gas was not a refinery fuel gas and therefore, those requirements did not apply.

(Interestingly enough, the EPA admitted to the Court that there were no environnmental benefits from the application of these standards to this facility).

In addition, since gasification can utilize as a feedstock organic material including refinery sludges and petrochemical secondary materials and convert the materials to a useful product, synthesis gas, one might imagine this would be embraced as an innovative technology with significant pollution prevention benefits. The TNRCC has recognized the enormous benefits of this technology and has made efforts to encourage its use. (See July 31, 1995 letter to Beverly Hartsock, which is included as an attachment.) However, the United States Environmental Protection Agency again presented obstacles.

Gasification is not combustion. Yet Environmental Protection Agency staff continued to attempt to apply incineration and other combustion-related waste treatment regulations to gasification where the synthesis gas was to be used as a fuel. Texaco succeeded in gaining Environmental Protection Agency acknowledgment that refinery sludges could be used in a gasification unit using the Texaco gasification process under an existing RCRA refinery exemption.

However, the Environmental Protection Agency subsequently passed a rule in 1998, as a part of the comparable fuel rulemaking, which designated synthesis gas produced using hazardous wastes as a feedstock as a hazardous waste unless certain requirements were meet, including specifications and public notice regarding the "hazardous waste derived synthesis gas". Texaco Inc., and the Gasification Technology Council filed a lawsuit challenging this rulemaking. The American Petroleum Institute joined as amicus and the Chemical Manufacturer's Association also added the synthesis gas issues to their list of issues for which they had filed suit against EPA in regard to liquid comparable fuel issues. After much discussion and the submission of technical data, the Environmental Protection Agency now recognizes that gasification is not combustion and that the existing hazardous waste combustion framework of rules is inappropriate to apply to gasification. Environmental Protection Agency staff now have an understanding of the technology and are enthusiastic about the potential of this technology in pollution prevention and waste minimization.

The Environmental Protection Agency has agreed to propose a rulemaking which would establish a conditional exclusion from RCRA jurisdiction hazardous waste materials which are generated in a gasification device to produce synthesis gas fuel. This proposal has been outlined to

various stakeholders, both industrial and public interest groups. The proposal is scheduled for publication in Fall, 2001. The proposal will also contain a request for comment on the extension of the conditional exclusion to other industries.

Fuel Cells-

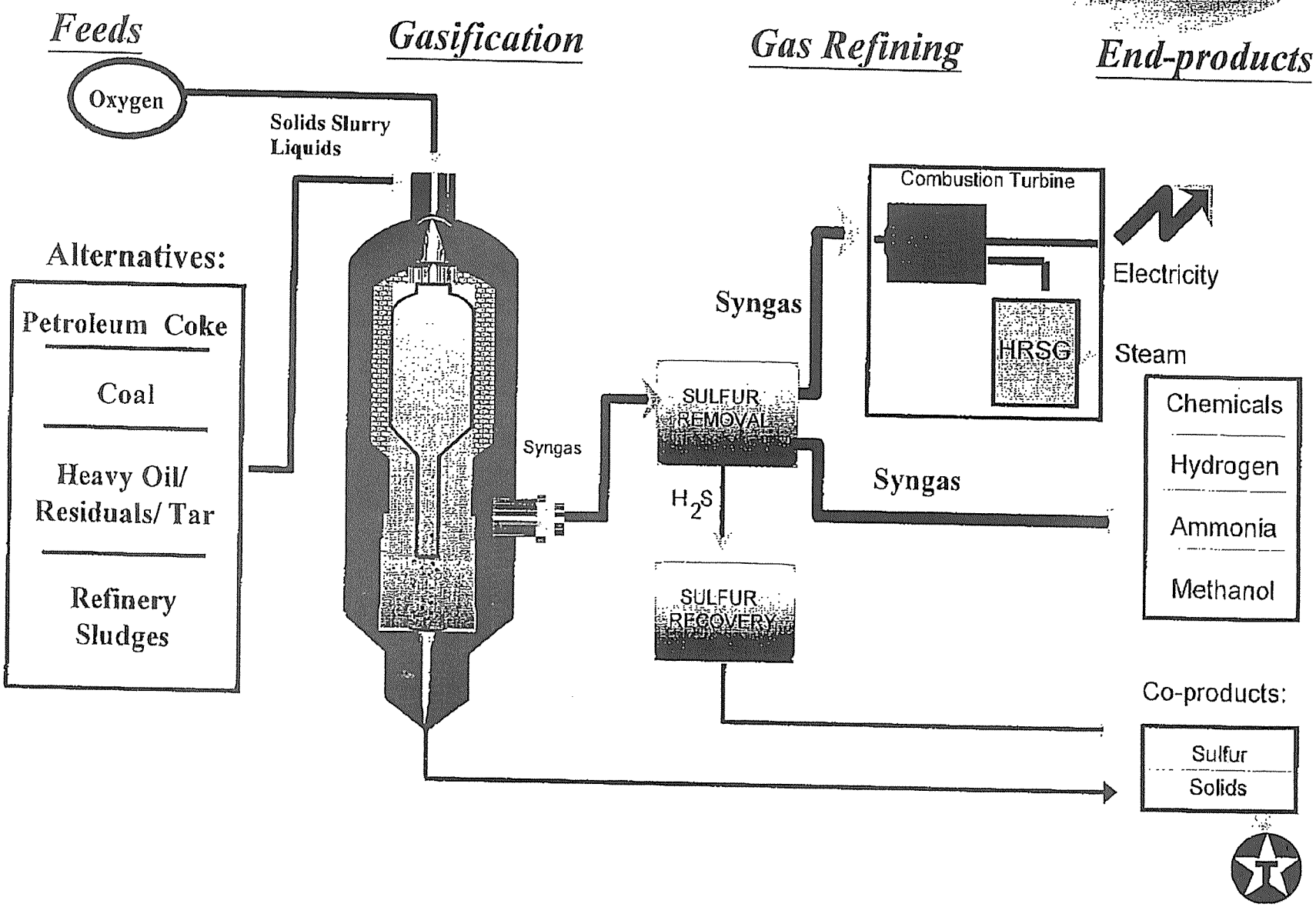
Technical information regarding fuel cell technology is attached. While there are some commercially available fuel cells now, much research is ongoing and fuel cells which will use hydrogen and other material is being designed and tested. Fuel cell innovative technology has widespread implications for minimizing or avoid creating of pollution.

The concern is that the governmental agencies avoid attempting to apply regulations to fuel cell technology which doesn't have an environmental benefit (and which is likely not directly applicable anyway).

Conclusion

More should be done to encourage process innovative technology. Pollution control innovative technology currently receives much encouragement and incentives. Process innovative technology should receive even greater incentives and encouragement. Regulatory obstacles need to be removed, especially the application of a regulatory framework that provides no environmental benefits and was not even designed for the particular technology to which it is being applied.

Texaco Power & Gasification



Texaco Power & Gasification

GASIFICATION IS NOT INCINERATION

GASIFICATION	INCINERATION
Purpose: Creation of valuable, usable products	Purpose: Destruction of waste materials
Chemical conversion using limited amounts of oxygen: C to CO H to H2 S to H2S, then pure S N to N2	Complete combustion excess using air: C to C02 H to H20 S to SO2 N to NOx
High temps (2300-2700 F) and high pressure	Lower temps (1500-1800 F) and atmospheric pressure (0 psig)
Non-hazardous solids	Potentially hazardous ash

Texaco Power & Gasification

Gasification				Combustion
CO	←	C	→	CO_2
H_2	←	H	→	H_2O
N_2	←	N	→	NO_X
H_2S	←	S	→	SO_X
		O	→	O_2
Non-Leachable Solids	←	ASH	→	Leachable Fly Ash

370.9. 1995(a)

Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Beverly Hartsock
Deputy Director
Office of Policy &
Regulatory Development

Date: July 31, 1995

Thru: Barry J. Williams
Deputy Director
Office of Waste Management

From: Minor Hibbs, P.E.
Director
Industrial and Hazardous Waste Division

Subject: Synthesis Gas Manufacturing as a Recycling Activity

The Industrial and Hazardous Waste Division requests a policy decision regarding a Synthesis Gas (Syngas) manufacture from by-product organic materials as a recycling activity. A policy decision will allow staff to clearly indicate the status of syngas manufacturing units in Texas to the owners and operators of these units and to encourage the U.S. Environmental Protection Agency (EPA) to include this process as a recycling activity in ongoing rulemaking activities.

1. POLICY ISSUE.

1.1 Significant facts and history regarding this request.

The processes proposed involve the use of a manufacturing unit to produce a synthesis gas (syngas) consisting of Hydrogen (H_2) and Carbon Monoxide (CO) at specified concentrations from a secondary hydrocarbon streams meeting certain specifications. The syngas streams are then used in normal product manufacturing processes at the facility or as specification fuels. The Texas Natural Resource Conservation Commission (TNRCC) maintains that these types of processes may be recycling activities exempt from RCRA permitting, as described below.

The process used in these instances involves the molecular breakdown of the organic components of the secondary stream. The process dissociates organic molecules and water molecules into syngas components using a high temperature thermal unit. The

syngas components using a high temperature thermal unit. The dissociation of the secondary material molecules into CO and H_2 results in the destruction of hazardous organic constituents present, thereby removing the characteristic of hazardous waste in many cases. The processes then separate the CO and H_2 from the other residual compounds in the off-gas. Residuals are either reprocessed or disposed of as wastes. The company then uses the CO and H_2 separated from the off-gases as a feedstock to synthesize a product. The use of syngas is an ordinary organic chemical synthesis process, and many common products are produced in this manner. Currently, many facilities produce syngas from either coal or natural gas as a normal manufacturing process.

Industrial syngas has historically had two major uses. One of these uses is as a raw material for a manufacturing process, such as ammonia, methanol or acetic acid synthesis. In many cases, these products are then manufactured into other compounds, such as methanol into Methyl-Tert-butyl ether (MTBE), or acetic acid into various plastics. The other major historical use for syngas and similar gases are as fuels. One current use of synthesis gas for fuel is in a combined cycle coal electric generation plant, where coal is gasified and the gas is burned in a gas turbine generator. Heat is recovered from the gasifier and the burner off gases, and is used to generate steam to power a steam turbine generator.

Pursuant to 30 Texas Administrative Code (TAC) 335.1, definition of Solid Waste and 40 CFR 261.2(e)(2)(ii), if a listed hazardous waste is used as an ingredient to produce or contained in a fuel, the fuel produced is also a listed hazardous waste. As a result of this, fuels produced from listed hazardous wastes may only be sold to facilities permitted to receive, store, or burn hazardous waste. The only exception to this rule is provided at 30 TAC 335.24(5), (6) and (8), and 40 CFR 261.6(3)(iv) for fuels produced from refinery wastes when reprocessed through the refinery.

Currently, EPA is pursuing several rulemaking actions related to the definition of Solid Waste and the burning of hazardous wastes. These include the redefinition of Solid Waste currently occurring through the HWIR rulemaking, and the Maximum Air Control Technology/RCRA Technical Standards for Incinerators, Cement Kilns and Lightweight Aggregate Kilns (MACT). EPA is considering requesting comments on what would constitute a "Comparable" fuel in the MACT rulemaking.

1.2 Policy issue.

We feel that the regulations set out at 40 CFR 261.2(e)(2)(ii) and reflected in 30 TAC 335.1 are meant for facilities that use simple blending to produce fuels. We do not believe that the rule, as written, envisioned the processing of organic secondary materials into other products, including fuels, by the types of manufacturing processes used to produce syngases. The processes utilized to produce syngases are subject to the requirements of the facility using the syngas to produce additional products, and so must meet a specification for use. We believe that once the synthesis gas meets the specification for plant use, then the syngas, and products made from the syngas, should not be subject to RCRA regulation. Likewise, we believe that facilities directly burning synthesis gases meeting fuel specifications for energy recovery should not be regulated under RCRA for that action.

Under current rule interpretation, if a hydrocarbon secondary material, classified as listed hazardous waste, is manufactured into syngas that meets typical specifications, then into other products, then converted into other products including fuels, then the fuel produced is a listed hazardous waste when burned for energy recovery. In addition, all facilities that were involved in the production of the fuel become waste processing facilities, potentially subject to permitting requirements. The burning of that fuel may require a hazardous waste permit. This current rule interpretation discourages the recycling and reuse of these secondary materials, and may encourage less environmentally beneficial disposal options.

1.3 Discussion points

- When the syngas is used to produce a product not applied to the land or used as a fuel, and the secondary materials and syngas meet appropriate specifications, the process could clearly be viewed as a recycling operation. The secondary materials used in syngas manufacture would be exempted from the definition of solid waste pursuant to 30 TAC 335.1 and 40 CFR 261.2(e)(i), for materials used as raw materials in industrial processes without reclamation (the feedstock exemption). The generation of different compounds from a secondary organic stream clearly does not involve reclamation, but rather is more akin to a manufacturing process.

- For sake of discussion, we will assume that the methanol produced from the secondary material generated

syngas in question meets the typical specification established by the MTBE producer for methanol produced from normal raw materials, and that no 40 CFR 261 Appendix VIII constituents are "along for the ride." We further assume that the MTBE produced also meets the requirements for the gasoline manufacturer. We also assume that analytical data shows no detectable difference in the composition of the gasolines. In this case, the only difference between the gasoline produced using MTBE derived from secondary materials and gasoline produced using MTBE derived from normal ingredients is the source of the raw material for the MTBE in the gas. In this case, there is no technical reason for classifying the gasoline with the secondary material derived MTBE as a waste. We reasonably conclude that the two gasolines should be classified and regulated in the same manner. We also reasonably conclude that the facilities involved in the manufacture of the MTBE do not require RCRA permits.

- As stated in a draft response to a letter dated April 28, 1995, sent to Allyn Davis, EPA Region VI, on this issue, EPA Region VI apparently does not disagree with the idea of syngas products as fuels if they meet all appropriate specifications. However, EPA Region VI does not believe that current regulations allow for hazardous waste produced syngas products to be burned as fuels. EPA Region VI recommended that the TNRCC submit appropriate information regarding syngas manufacture to EPA Headquarters in Washington.

- Facilities accepting secondary materials that do not meet specification and that process, including blending with other materials, those materials to meet the necessary specification would require a hazardous waste permit for that processing operation. This is because the materials processed to meet the specification that are off-specification prior to processing could not be considered a legitimate substitute for an ordinary raw material.

- Facilities would still be subject to all applicable requirements of the Texas Clean Air Act for all practices and processes regulated thereby.

- If the secondary material fed to the syngas unit were to be considered a recyclable material, the facility generating the organic secondary material described above would be generating a secondary material to be

used as an ingredient for an industrial process, not a waste. Since the material could be used as an ingredient in a production process, there is incentive for the generating entity and the receiving entity to properly manage the material without release of the materials to the environment, i.e., the secondary material would have intrinsic value as a raw material. Once again, however, we note that to qualify for this type of exemption, the secondary material must meet stringent specifications that ordinary raw materials fed to the syngas unit would meet. These specifications would include such requirements as carbon, hydrogen, sulfur, metals, and halogen content, and non-reactive materials content, and would need to be as stringent as those placed on coal, residual oil or natural gas ordinarily fed to one of these units.

- Companies may attempt to operate sham recycling operations under this regulatory scenario. Because of this, we feel that specifications for the secondary material fed to the syngas unit and the products produced must be established and demonstrated by the owner/operator of a syngas production unit utilizing secondary materials as feedstocks. These specifications could be established in contracts between the secondary material producers and the syngas manufacturer, and between the syngas manufacturer and the syngas buyer. We also feel that demonstrations of the ability of these operations to consistently meet product specifications will take time. Analysis and recordkeeping requirements for recycling facilities are established and enforceable, with appropriate enforcement avenues available for lapses in these areas.

- This issue could be considered from a waste minimization issue and a pollution prevention viewpoint. In this type of process, a material currently considered a waste would be converted into a non-waste feedstock to produce a commercially viable product. By this conversion, the generator of the secondary materials would be able to achieve real waste minimization. These types of processes might be used by facilities to meet Clean Texas 2000 commitments for waste generation reduction. These types of processes would also appear to satisfy the National Waste Minimization Plan issued in November 1994, which emphasizes environmentally sound recycling for hazardous wastes. In addition, the National Waste

Minimization and Combustion Strategy issued by EPA on November 18, 1994 promotes the use of new and innovative technologies.

- The TNRCC may receive opposition on this issue from facilities and trade organizations currently struggling over the shrinking organic hazardous waste market. These opponents may include commercial hazardous waste combustion and processing facilities.

1.3. Conclusion

We believe that once syngas, meeting normal established syngas specifications, is manufactured from the secondary material, and then converted into another product, the product should not be regulated until the product is discarded. When determining whether the product produced from the syngas meets the criteria of 40 CFR 261.2, this product should be viewed in the same way a product produced from normal raw materials is viewed. If the normal use for the product, including the syngas, is as a fuel, and syngas or the product manufactured from syngas meets specifications typical to those met by fuels produced from normal raw materials, the burning of the syngas or the product manufactured from syngas should be regulated in the same manner as the burning of products produced from normal raw materials.

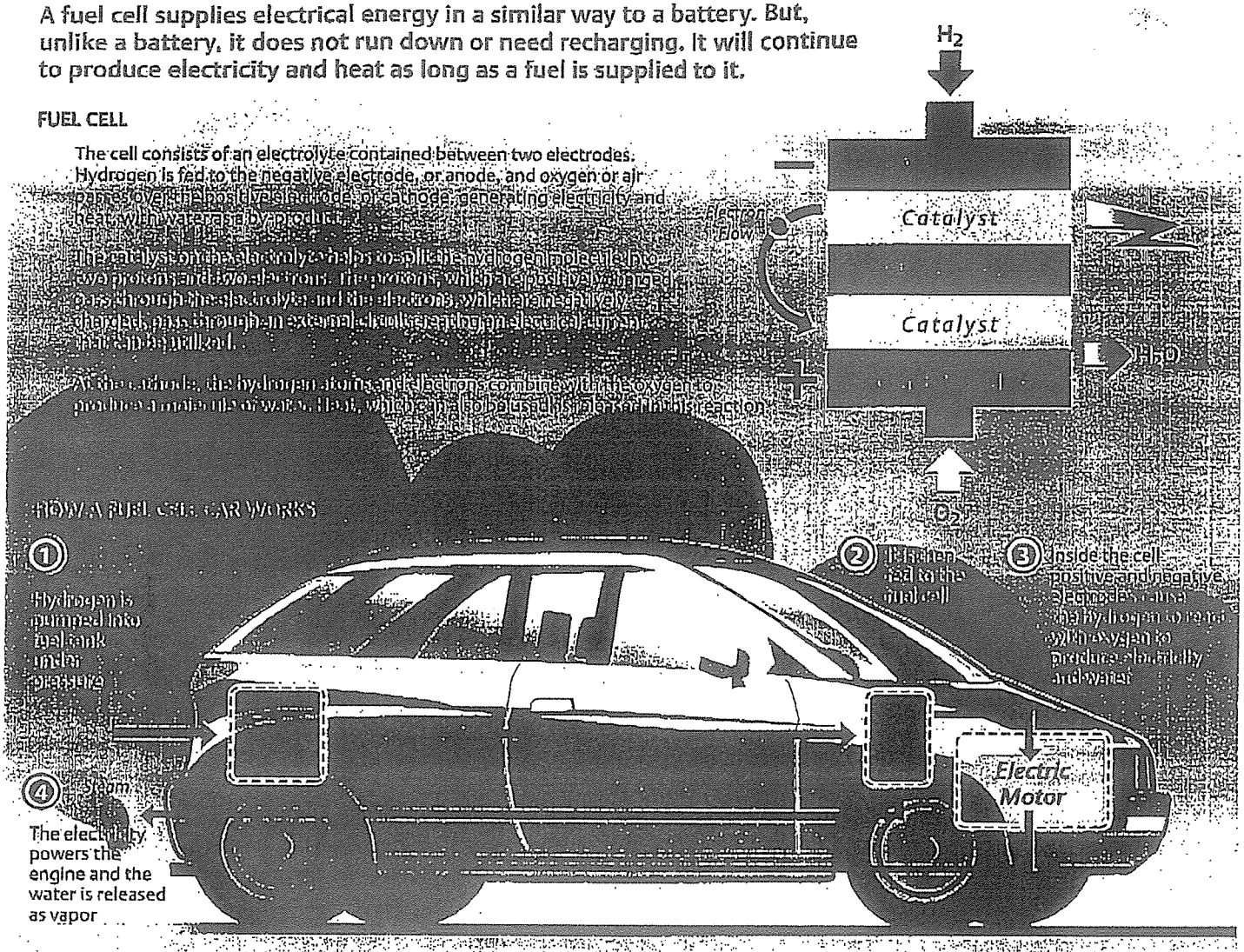
2. Commission action.

Since Texas is authorized for the RCRA program, Texas could choose to interpret the current rules in such a way as to maximize environmental benefit and recycling, subject to EPA Region VI oversight. The Commission could instruct the Executive Director and Staff to utilize the rule interpretation set out in this paper, and to pursue federal rule changes that reflect common sense and good engineering practice regarding the production of syngas and syngas products. On this particular issue, the staff would then provide technical information demonstrating the logic of this approach to regulation to the rulemaking workgroups for inclusion into proposed rules. After changes are made in the federal rule, the TNRCC could immediately adopt this revised rule.

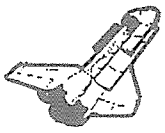
cc: Ms. Nancy Worst - Innovative Technology Manager, Austin

FUEL CELL TECHNOLOGY

A fuel cell supplies electrical energy in a similar way to a battery. But, unlike a battery, it does not run down or need recharging. It will continue to produce electricity and heat as long as a fuel is supplied to it.



A fuel cell system can incorporate a 'fuel processor' that can produce hydrogen from hydrocarbons such as natural gas, methanol or even gasoline.
Because a fuel cell produces electricity from a chemical reaction and not combustion, emissions from such a system are much smaller than emissions from even the cleanest fuel combustion system.



While the first fuel cell was developed in 1839, serious interest in the technology did not begin until 1960s when the US space program used fuel cells instead of more risky nuclear power. Both the Gemini and Apollo missions used fuel cells and today's space shuttle still uses fuel cells for electricity and water. Today activity in fuel cell technology development and commercialization is expanding worldwide. Several types of fuel cells and hydrogen generation systems are being developed, and many industrial, academic and governmental agencies are involved in the work.

As part of its effort to maintain a leadership position in energy technology, Texaco has begun a program to develop a fuel processing system that can utilize conventional liquid hydrocarbons to produce hydrogen for fuel cells. Texaco's proprietary gasification technology will be the basis of the program.

HYDROCARBON-TO-LIQUID TECHNOLOGY

Hydrocarbon-to-liquid technology (HTL) converts low-value carbon-bearing material into high-value liquid hydrocarbons and fuels. There are two distinct applications of HTL:

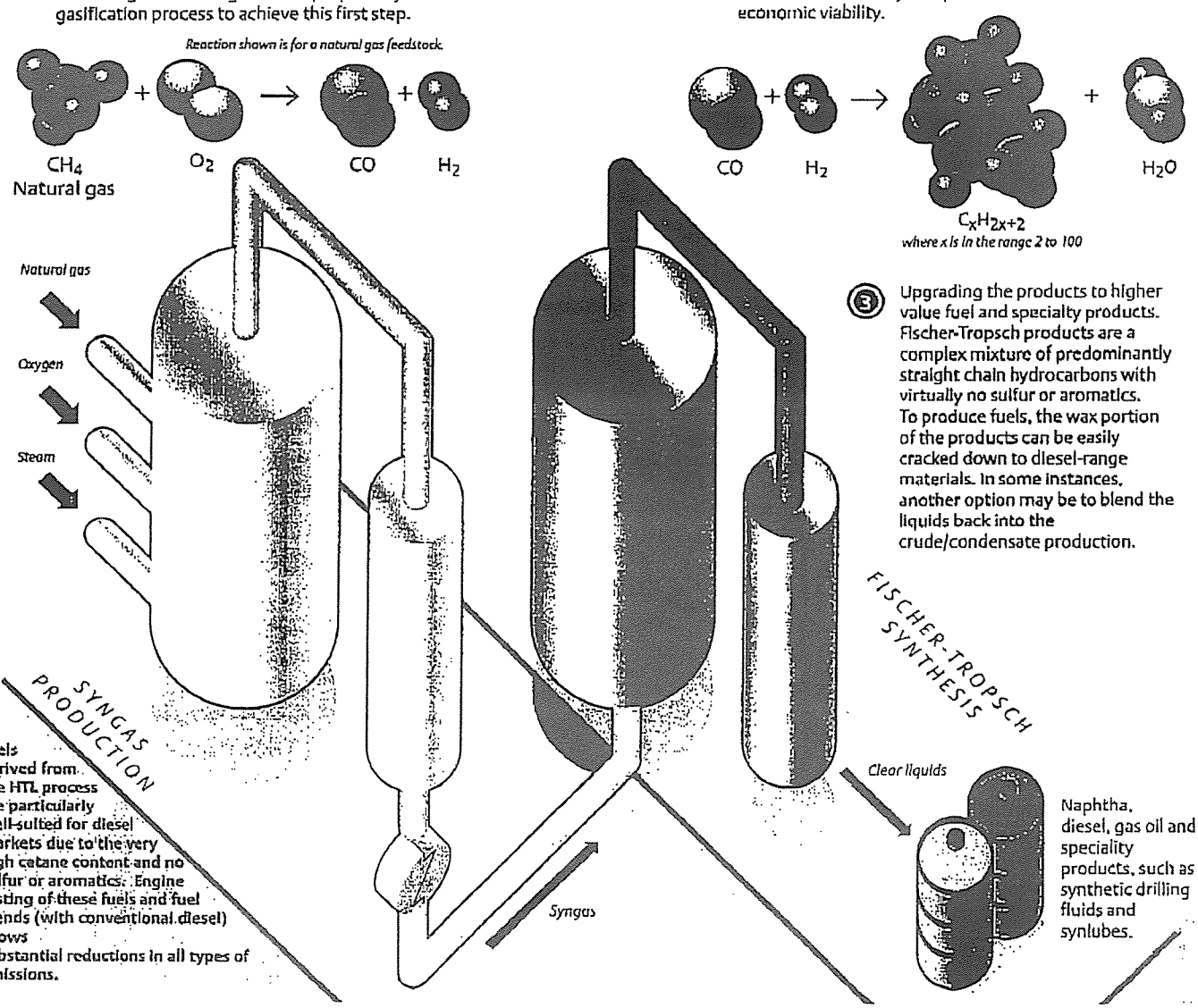
- *Natural gas* - It provides an economic use for gas reserves that might otherwise not be utilized due to lack of local market or are flared as part of oil production.
- *Solids and liquids* - Heavy oil opportunities include the conversion of heavier materials (liquids or solids) from upgrading facilities at heavy oil production fields. HTL can also allow refineries to maximize crude use, improve running efficiencies and generate cleaner fuel.

As the world energy mix continues to shift toward natural gas and heavier crude oil, having a conversion technology will improve Texaco's position as an energy company.

CONVERSION OF HYDROCARBONS

① Conversion of natural gas, heavy hydrocarbon liquids and solids to synthesis gas – carbon monoxide and hydrogen. There are several commercially-proven technologies including Texaco's proprietary gasification process to achieve this first step.

② Synthesis gas is then converted into liquid product by the Fischer-Tropsch reaction. The chemistry has been known for decades but the challenge is to achieve conversion efficiency to liquid at a commercial rate and economic viability.



③ Upgrading the products to higher value fuel and specialty products. Fischer-Tropsch products are a complex mixture of predominantly straight chain hydrocarbons with virtually no sulfur or aromatics. To produce fuels, the wax portion of the products can be easily cracked down to diesel-range materials. In some instances, another option may be to blend the liquids back into the crude/condensate production.

Fuels derived from the HTL process are particularly well-suited for diesel markets due to the very high cetane content and no sulfur or aromatics. Engine testing of these fuels and fuel blends (with conventional diesel) shows substantial reductions in all types of emissions.

Naphtha, diesel, gas oil and speciality products, such as synthetic drilling fluids and synlubes.

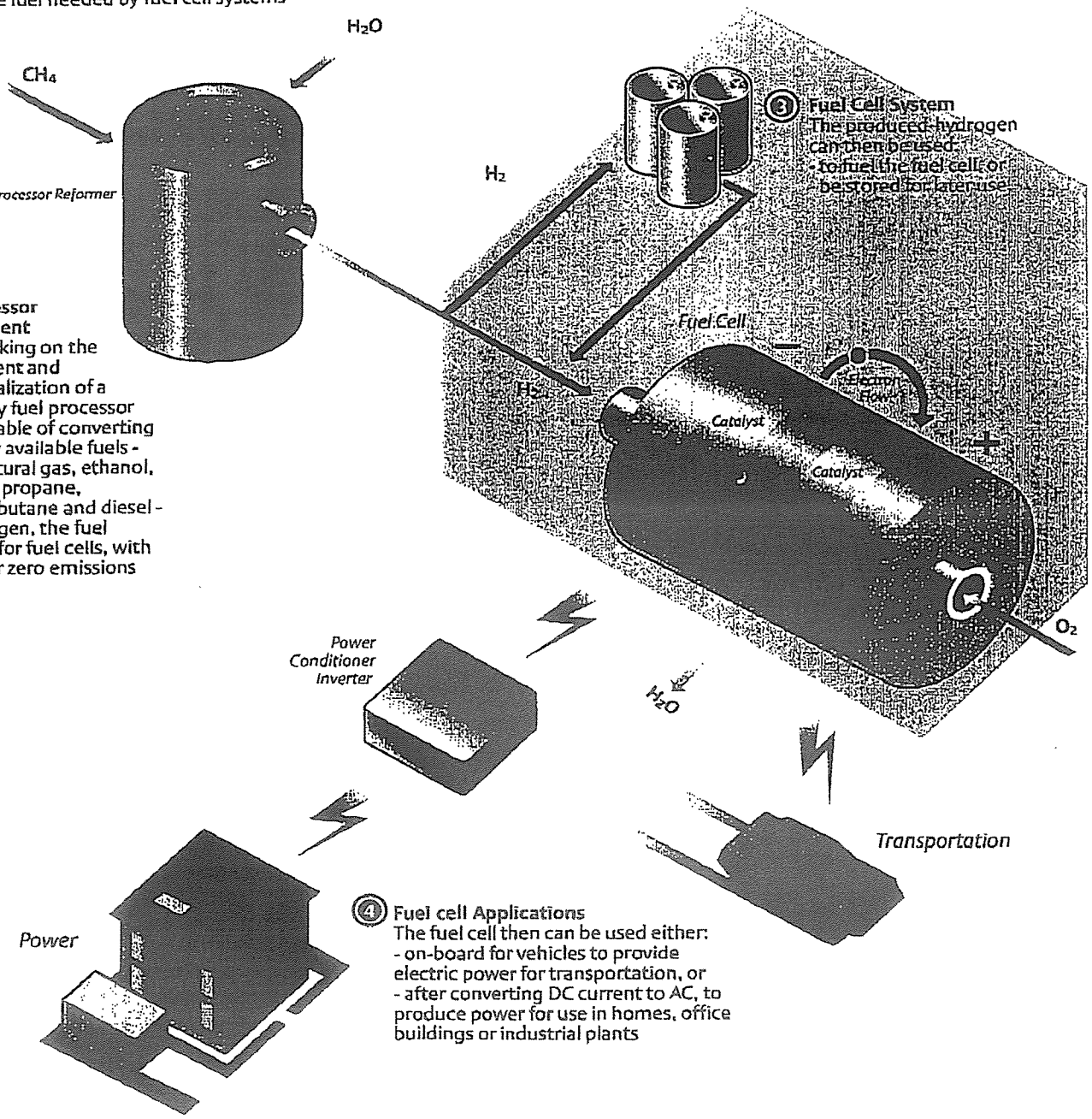
Texaco's association with HTL technology goes back to the late 1940s when a 5,000 BPD plant known as Carthage Hydrocol was operated with other partners in Brownsville, Texas. Today, Texaco is in joint development programs with several technology suppliers including Syntroleum Corporation for natural gas feedstocks, and Rentech for solid and liquid feedstocks. Syntroleum uses a cobalt-based catalyst and Rentech uses an iron-based catalyst in the Fischer-Tropsch reactor.

For more information about Hydrocarbons to Liquids contact Ron Skarbek at Texnet 752-4718.

TEXACO ENERGY SYSTEMS INC.

Texaco Energy Systems Inc. (TESI) is actively engaged in developing and commercializing several advanced processes representing new market opportunities for the next generation of clean, energy-efficient technologies.

① Fuel Supply
Based on Texaco's expertise in gasification and fuel processing, TESI is ideally positioned to provide the fuel needed by fuel cell systems



② Fuel Processor Development
TESI is working on the development and commercialization of a proprietary fuel processor that is capable of converting commonly available fuels - such as natural gas, ethanol, methanol, propane, kerosene, butane and diesel - into hydrogen, the fuel necessary for fuel cells, with very low or zero emissions

④ Fuel cell Applications
The fuel cell then can be used either:
- on-board for vehicles to provide electric power for transportation, or
- after converting DC current to AC, to produce power for use in homes, office buildings or industrial plants

Contact:
Texaco Energy Systems Inc
P.O. Box 4700
Houston
Texas 77210-4700
USA
Tel: +1 (713) 752 6815

www.texaco.com

What To Do When The Inspector Shows Up?

By: Linda S. Kuhn [1] ***and Heather Bradford*** [2]
Edited By: Jerry George [3]

WHAT TO DO WHEN THE INSPECTOR SHOWS UP? How do you describe those first few moments between an announcement by the receptionist or security attendant that a federal, state or local regulatory inspector has arrived at your facility and the time it takes you to look in your daily calendar to see if you have forgotten an inspection? The feeling can be panic ("This is the worst possible day"), denial ("This can't be happening to me"), or somewhere in between ("Please ask the inspector to wait while I come to escort him/her to the conference room"). How prepared are you for the unexpected?

Environmental liability manifests itself in various forms, such as administrative civil, criminal, and compensatory and other common law claims. This article specifically examines of administrative law claims made by regulatory agencies. Administrative violations can be very serious and result in monetary fines, permit revocation and even injunctive relief. Many of the administrative violations also carry the possibility of criminal sanctions that can range from monetary fines to jail time. Violations of environmental regulations generally arise from some type of inspection by the regulating agency, whether scheduled or unscheduled. Therefore, managing the interactions that occur during an inspection can be critical to its outcome. This paper will briefly present tips to handle scheduled inspections, but will take a more detailed look at managing unscheduled inspections. The topic of "right of entry" is always at the forefront of discussions regarding "surprise" inspections. This paper also examines the right of regulatory agencies to enter, provides examples of regulatory and statutory citations for right of entry, and provides a summary of key cases in historical right of entry litigation. Included in the summary is the W.R. Grace case that was settled in March of 2001. Finally, this paper will briefly present key points regarding criminal environmental investigations – the new trend in environmental enforcement.

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[1] Ms. Kuhn is a senior attorney in the Houston office of the law firm of Campbell George & Strong, L.L.P.

[2] Ms. Bradford is a law clerk at Campbell George & Strong, L.L.P. and is currently enrolled at South Texas College of Law in Houston, Texas.

[3] Mr. George is a Partner in the law firm of Campbell George & Strong, L.L.P. and manages the San Francisco, California office.

A. SCHEDULED INSPECTIONS

Most registered facilities can expect, at a minimum, an annual compliance inspection to insure compliance with applicable regulations or site-specific permit(s). Generally, annual compliance inspections are scheduled between the agency inspector and the facility representative because of the large volume of documents requiring inspection or review. While scheduled inspections allow a facility operator to prepare in advance for the inspection, make key personnel available and organize necessary documents, they also allow for a more detailed and critical evaluation of the facility and its "paper" documentation associated with its permit. Therefore, careful preparation is the key to having a successful scheduled inspection.

Common Issues Creating Liability during Scheduled Inspections

- Permit violations
- Recent spills, discharges or releases (sloppy facility maintenance)
- Improper handling of waste (storage, disposal, transportation, characterization)

B. Unscheduled Inspections

Most often complaints and spills serve as the basis for unannounced or unscheduled inspections. Unscheduled inspections typically produce the greatest opportunity for violation allegations. Remember, a chaotic environment breeds mistakes. Mistakes breed violation allegations. Common issues that are often the source of violation allegations included: (1) unavailability of key personnel, and (2) the dissemination of poor quality information. Strict appropriation of responsibilities between facility personnel can be problematic during an inspection if all personnel are not available. For example, if the person who knows everything about the waste manifests is not available to answer questions when the inspector arrives, it may appear (to the inspector) as thought the facility is not complying with the regulations regarding waste manifests or has "something to hide."

While impossible to prepare for an unscheduled inspection, facility personnel can have pre-planned procedures (that are occasionally drilled) to address these occasions. In a moment of panic or surprise about an unscheduled inspection, facility personnel may attempt to deny or delay entry, insisting that the inspector provide a justifiable reason for the inspection. Denial or delay of entry can be the beginning of an adversarial relationship, which can persist for a long time. So keep in mind, inspectors, in general, have the right to enter and inspect without having any reason for entry such as a complaint or annual inspection. Most environmental statutes provide a nearly absolute right of entry to inspectors. Agencies defend their right of entry very vigilantly from a prosecutorial perspective. Because the "right of entry" is so absolute and does not have to be based on probable cause, regulatory agencies have developed policies and procedures that their inspectors must follow to gain entry for inspections. Providing appropriate agency identification is a critical aspect of proper entry into an occupied facility. Properly identifying the inspector and the agency he or she represents can be a critical component to understanding the inspector's purpose and focus, which is the key to having a successful unscheduled inspection.

Goals for an Inspection

When working with a regulatory inspector, whether during scheduled or unscheduled inspections, the following rules should be followed to produce the most favorable inspection results. Remember, the goal is compliance with the regulations; however, the only way to document that effort is to satisfy the inspector's needs. If an inspector requests information that might be inapplicable or inappropriate, don't hesitate to ask why they want the information. If asked a question that you don't know the answer to, or that answering may be violating your company's information dissemination policy, inform the inspector that you will have to check on that information and get back with him or her. The following summary clarifies the goals for any inspection:

- Satisfy the inspector's informational needs,
- By providing high quality information,
- Regarding the specific issues addressed by the inspector, and
- In a manner consistent with your company's policies.

The "Golden Rules" of Inspection

The following are the "Golden Rules" and should be applied to any inspection.

- Be cooperative.
- Reduce chaos by gaining control.
- Require that the inspector provide proper identification.
- Clarify the inspector's purpose.
- Develop an agenda that will address the inspector's concern(s).
- Provide "just the facts."
- Control access to documents.
- Have a corporate policy for criminal investigations.

Be Cooperative

- An adversarial approach will only heighten the inspector's desire to investigate, whether there are violations or not.
- Being cooperative does not mean that you have to do everything the inspector asks.

Reduce Chaos

- Minimize disruption.
- Minimize the communication of misinformation, incorrect information, or information out of context.
- Move the inspector to a conference room away from your office so that you can control interaction with other personnel, avoid the distraction of interruptions and phone calls, and avoid having the inspector unintentionally able to view documents in plain view in your office.
- The conference room should have no writing on the blackboards or documents out in plain view.
- If you are in the field (for a spill response) or command center, move to a quiet, private room or location. If one does not exist, go to the closest hotel and rent a room, if necessary.

Require that the Inspector Provide Proper Identification

- It is very important to request formal identification for all inspectors, not just the lead or most vocal inspector.
- Obtain a business card (from each), if possible.
- Generic introductions by agency personnel are not adequate.
- At a minimum, before proceeding with the inspection you should know:
  - The name of all inspectors,
  - Their respective agency name, and
  - The division within that agency where he or she works.
- Obtain information about their background(s) if possible, including:
  - How long have you been with the agency?
  - Do you have a technical background?

Clarify the Inspector's Purpose

- While law does, generally not require probable cause, or a reason to inspect, most inspectors have a reason.
- Find out the purpose of the inspector's visit, before you ever step foot out on the site or the facility.
- Address only what the inspector identifies as his/her concern(s).

Develop an Agenda for the Inspection

- Before you answer questions, retrieve documents, tour the site or facility, develop an Agenda for dealing with the inspector's concerns.
- This allows you to check on the availability of key personnel, retrieve relevant documents, contemplate the best route the site to see the specific issue that is the subject of the inspector's concern.

"Just the Facts, Ma'am"

- When answering questions posed by the inspector, answer only the questions asked. Don't volunteer information or opinions.
- Don't panic or rush.
- Limit answers to the specific issue - don't make generalizations.
- Don't be afraid to say: "I don't know," "I am not sure," or "Let me research that and get back with you."
- Don't volunteer admissions of violations: "Yeah, that looks like a violation," or "Yeah, we messed up there!"
- If you feel as though the inspection is going the wrong direction, e.g. having criminal implications:
  - **STOP** – take a break and possibly advise the inspector that you are going to contact your attorney and will not answer any more questions without legal counsel being present.
  - **Remember the company's attorney does not represent you as an individual.**

Control Access to Documents

- Do not allow uncontrolled access to documents.
- You should select each document and hand it to the inspector.
- Don't provide copies of incomplete or draft documents.
- Don't say – "Here is the file drawer, I'll be in my office if you need me."
- Identify specific pages that need to be copied – don't volunteer copies not specifically requested.
- Make a list of all documents provided to the inspector.
- The inspector does not have to leave that day with the copies.
- Suggest mailing or have them ready on a specific day (based on number and corporate policy).
- Decide who in your company needs to know about the documents that you are providing to the inspector?

Have a Corporate Policy for Criminal Investigations

- The middle of a criminal investigation is not the time to develop a company plan for how to deal with criminal investigations. All facilities should discuss this possibility with their legal counsel and have a plan. The initial interview can seriously influence the direction and vigor of the investigation.

C. Challenging the Inspector's Right of Entry

Generally, inspectors have a statutory right to enter unannounced and conduct "inspections," which include:

- Document review,
- Sample collection,
- Photographs, and
- All other activities necessary for the purpose of the inspection.

Inspectors are generally required to follow agency prescribed procedures for entry, which include at a minimum, providing formal (agency) identification. Failure or inability to provide identification may be the only limited instance when delaying or refusing entry may be appropriate.

- Do not be afraid to request agency identification or request that the inspector provide similar information. This information may be critical and could provide you with information indicating that you and/or your facility are undergoing a criminal investigation.

Statutory References for "Right to Entry"

- **Water Quality: 26.014 Texas Water Code**
  - Commission representatives may enter private or public property "at any reasonable time" for the purposes of inspecting or monitoring conditions related to water quality
  - If management is in residence, notification and exhibition of proper credentials are required prior to entry

- **Solid Waste: 361.032 Health and Safety Code**
  - May enter "at any reasonable time"
  - If management is in residence, notification and exhibition of proper credentials are required prior to entry
  - Representative "shall observe" established safety & security rules
- **Oil Spill Prevention and Control (for GLO): 31 TAC 19.3**
  - "If unannounced, the GLO will make a reasonable effort to obtain the consent of the owner of vessel or facility proper to entry."
  - GLO "will present credentials and explain the purpose and scope of the requested entry onto private property."
  - Upon entry, GLO may:
    - Sample and test
    - Take photographs, video and other recordings
    - Review and copy documents
- **Asbestos (TDH): 25 TAC 295.68**
  - (b)&(d) No need to seek permission or notify of entry
  - (d) makes it a …violation to interfere with, deny, or delay an inspection
  - (c)& (f) Inspector must have department issued ID card to enter at all reasonable times
  - (e) TDH is responsible for employee safety – cannot impede inspection for safety

What Constitutes Proper Entry?

- Request that all inspectors provide identification if more than one inspector is present
- A hat or jacket with agency emblem is not proper ID!
- Don't accept generic introductions that include their name only, make them specify the agency they represent and their purpose or role in the inspection
- In general, if management is on-site, the inspector is required to announce and provide identification prior to entry

Denial of Access

- Can be the basis for a violation allegation
- Is rarely justifiable by the facility
- Can result in the inspector obtaining a warrant from the local magistrate, who rarely deny these requests
- The warrant will be served by local police department along with the inspector
- Safety is usually not a justifiable basis for denial of entry
- Agencies take "denial of entry" very seriously from a prosecutorial perspective

D. Case Summaries Regarding "Right of Entry"

Regulatory agencies and the courts have historically given broad discretion to inspectors conducting regulatory activities. The long line of modern case law supports this authority, with the *W.R. Grace* case being the most recent. Some cases even support the agencies ability to

"take" private property if needed to protect human health and the environment. Summaries of several of these cases are presented below.

Mobil Oil, Corp. v. U.S. E.P.A., 716 F.2d 1187 (7th Cir. 1983)

In 1983, Mobil Oil Corp. allowed engineers from the EPA to sample treated wastewater from the waste streams at Mobil's refinery but refused to grant access to its untreated wastewater. Mobil argued that untreated wastewater was not "effluent" as used in 33 U.S.C. § 1318(a), the Federal Water Pollution Control Act, and was therefore not subject to an EPA inspection. The Court ruled in favor of the EPA's right to enter and refused to protect Mobil's interests. The court stated that the EPA is given this broad discretion in its inspection procedures because it is charged with the important task of eliminating water pollutant discharge into the nation's navigable waters. The EPA had authorization to sample all wastewater from the facility because it could help to assess the efficiency of Mobil's treatment processes.

Ced's, Inc. v. U.S. E.P.A., 745 F.2d 1092 (7th Cir. 1984)

Federal administrative agencies also enjoy great latitude in gaining access to business records. The EPA, under an administrative warrant, entered a business facility owned and operated by Ced's, Inc. Pursuant to Section 203(a) of the Clean Air Act, 42 U.S.C. § 7522(a)(3)(B), the EPA seized and copied business records kept at the facility. Ced's questioned the scope of the EPA's ability to copy business records under the Act. The Court found that the wording of the statute does not limit the EPA's investigation authority to only those documents that the EPA has specifically required a company to keep under Section 114(a)(1) of the Clean Air Act. The investigation can extend to all documents kept in the regular course of business. Congress intended Section 114(a)(1) to give the EPA authority to require certain persons to keep certain records not already kept in the regular course of business. Section 114(a)(2)(B) intended to allow the EPA to have access to and copy these and all other records kept by the business.

Jackson Vac. Ser. v. Lavaca-Navidad, 701 S.W. 2d 12 (Tex. App. -- Corpus Christi 1985)

The power to inspect and the broad right to enter are not limited to federal regulatory agencies. In 1985 authorities of a local river authority in Texas attempted to inspect land belonging to Jackson Vacuum Service for possible water pollution. Jackson Vacuum performed salt-water injections for the oil and gas industry. The Vacuum Service argued that the Railroad Commission is the only agency in the State of Texas with investigative and enforcement authority in matters related to oil and gas. The Corpus Christi court found that both the Lavaca-Navidad River Authority and the Texas Railroad Commission have the right to enter and inspect under Chapter 26.001 of the Texas Water Code. Both the Texas Department of Water Resources (DWR) and local governments have the authority to enter and inspect private land for possible water pollution even if the suspected polluting activity involves oil and gas facilities, which are usually the sole jurisdiction of the Railroad Commission. The DWR and local governments may do this in order to determine if the water pollution is due to sources other than oil and gas activity. At the point that water pollution is found and determined to be a result of oil and gas operations, deference must be given to the Railroad Commission's authority over those types of businesses. This case is a good illustration of the wide latitude given to governmental agencies in the areas of inspection and entry rights.

Dow Chemical, Co. v. U.S., 476 U.S. 227 (1986).

Agency representatives are also authorized to take photographs in addition to samples and copies of business records. When an EPA agent was denied a second ground inspection of Dow Chemical's manufacturing plant authorized by 42 U.S.C.S. § 7414, the Clean Air Act, the agent attempted to take photographs of the facility from beyond the fence perimeter. Due to Dow's elaborate security measures, the plant could not be seen or photographed from a ground-level public view. In order to facilitate their investigation, the EPA hired a commercial aerial photographer to take photos of the facility from navigable airspace. The EPA had the authority to do this without obtaining a search warrant and without violating Dow's Fifth Amendment right against unlawful searches and seizures because they employed observational methods that were available to the general public. Only when the EPA seeks access to information not available to the general public are they required to obtain a warrant after denial of entry to a facility. Any fears relating to the release of trade secrets revealed by the photographs are addressed by the Federal Trade Secrets Act, which prohibits disclosure of this material to the public or to competitors.

In the Matter of Alameda County Assessor's Parcel Nos. 537-801-2-4 and 537-850-9, 672 F. Supp. 1278 (N.D. Cal. 1987)

Private landowners are as subject to an administrative "right to enter" as a corporate landowner. The EPA and Corps of Engineers were denied access to a farmer's land where they wished to determine if the land fell under the jurisdiction of the Federal Water Pollution Act, 33 U.S.C. § 1251. The Corps wished to inspect the land to determine if any of the property could be considered "wetlands." Representatives from the Corps and the EPA were allowed to walk onto the land during one visit but were not allowed to take any soil or vegetation samples or conduct any tests. After this initial visit, reports of activity on the property, such as contouring and the spreading of fill material, were made to the Corps of Engineers. The EPA feared that the farmer was modifying his land to escape a "wetlands" designation and obtained an administrative warrant to enter the land. The landowner disputed the EPA's power to obtain a warrant in this instance. He argued that doing so intruded upon the Corps of Engineer's enforcement authority over these matters given in Section 404 of the Clean Water Act. The court found that even though the Corps of Engineers has the power to enforce specific provisions of the Clean Water Act, final enforcement power of the entire Act is vested in the EPA. This gives the EPA a very far-reaching authority in all matters involving water pollution.

U.S.A. v. City of New Orleans, 86 F. Supp. 580 (E.D. La. 1999).

In this case, the City of New Orleans expressly denied entry to undeveloped property that was near a municipal waste landfill that had been designated as a Federal Superfund site. If an owner refuses the EPA's request for entry onto the property, then the EPA may either issue an administrative order of access or seek a court order to compel compliance. After the court determined that the EPA met each and every element of 42 U.S.C.S. § 9604 (e)(5)(B), an order for access was granted. There are five elements that the EPA must prove before such an order is issued. First, the initial entry onto the property must be sought under paragraphs (2), (3), or (4) of 42 U.S.C.S. § 9604(e)(5)(B). Second, the EPA must seek the owner's consent prior to seeking court ordered enforcement. Third, the EPA must have a reasonable basis to believe that a release has occurred, is present, or is eminent. Fourth, there must be interference with the entry request.

Finally, the demand for entry cannot be arbitrary, capricious, an abuse of discretion, or otherwise prohibited by law.

The court elaborated on the requirements of elements three and four. The third element deals with the EPA's "reasonable belief." For these purposes, the court noted that the CERCLA statute does not distinguish between properties containing hazardous substances and those that are adjacent to such properties. Entrance to any property is authorized in order to effectuate a response action or determine if one is necessary. The "reasonable" requirement also extends to the EPA's belief of harm and chosen plan of action. The fourth element was elaborated upon as well. The Court defined interference with the entry request as any "conduct, which could delay the cleanup schedule." The standards set by the statute and expanded upon by the courts are very relaxed and the EPA has had no trouble meeting them.

U.S.A. v. W.R. Grace & Co. and Kootenai Development Corporation, 134 F. Supp.2d 1182, March 9, 2001 (U.S. District Court of Montana)

In this case, W.R. Grace & Company denied the EPA access to certain lands that had been previously held by the Kootenai Development Corporation. The EPA was allowed to enter one parcel of land where soil samples and investigation activities were allowed, but entry was denied altogether to two other properties. Access was limited to certain activities and EPA representatives were not allowed to effectuate a response action that they believed was necessary. As part of the response action, the EPA wished to use one of the properties, an abandoned mine, as a disposal site for hazardous waste removed during the response action. The court found that the EPA had a reasonable basis to believe that there might be a release or a threat of a release at all of the properties and, as such, had the right to enter to determine the need for response, determine the appropriate response, and to effectuate a response.

The Court concluded that the EPA has the power to enter land, evaluate, and effectuate a response action prior to any determination of a possible "taking" due to these activities. Compelling the EPA to acquire an interest in the property prior to initiating an emergency response action could seriously limit the agency's ability to protect human health and the environment. The EPA has broad power to act in the face of impending or actual environmental danger and has the authority to acquire property by compulsory acquisition or by donation to abate those dangers; however it is not required to do so.

E. Criminal Investigations

Pursuit of criminal sanctions is becoming a more commonplace practice. Most environmental statutes have criminal penalty provisions. The standard of proof for prosecution of these violations, "*knew or reasonably should have known,*" is fairly low and broad. This standard allows for the prosecution of the person who knowingly commits the act, and also for the manger or supervisor who "*reasonably should have known*" what his/her employees were doing.

- When multiple inspectors arrive for an unannounced inspection – BEWARE!
- One in the crowd could be a criminal investigator. They are not required to declare that they are criminal investigators.
- Introductions are critical!
- Do not expect them to read you your rights before questioning – any answer you give is voluntary.
- Have a corporate policy addressing criminal investigations:
  - Some companies close the business and dismiss all employees
  - Some managers do not to answer any questions until they consult with their attorney or have their attorney present

Common Actions Creating Criminal Liability

- Reporting and record keeping
- Falsifying, altering after-the-fact
- Inaccurate, incomplete, non-existent reporting
- Untimely reporting of spills, releases or discharges
- Spills or releases, in general
- Failure to operate and maintain in a manner to prevent spills or releases
- Intentional or accidental mishandling of waste
- Chronic permit violations

If a Alleged Violation is Found

- Document what the inspector finds
  - Split samples
  - Take photographs, etc…
  - Request a copy of their report
- **Attempt to negotiate a follow-up inspection to show that the violation has been resolved**

Linda S. Kuhn, R.P.G.

Ms. Kuhn's background combines regulatory, technical, and legal expertise. She served seven years at the Texas Natural Resource Conservation Commission (TNRCC) where she was a groundwater geologist, a RCRA inspector, a program manager, and the State's On-Scene Coordinator (OSC) for releases of oil and hazardous materials for the Gulf Coast Region. As one of the State's OSCs, she was involved in and managed over 250 spill events, involving materials ranging from crude oil to exploding drums of unknown materials at facilities ranging from Superfund sites to offshore vessels. She co-authored the current Texas spill regulations and received commendations from the U.S. EPA, the TNRCC and the U.S. Coast Guard for her work.

After leaving the TNRCC, she practiced as an environmental consultant, biologist and geologist with Entrix, Inc. At Entrix she provided technical guidance to clients on spill response, groundwater contamination, remediation, restoration, biological assessments and other compliance matters. She managed numerous natural resource damage assessments and developed extensive expertise in Clean Water Act (CWA) matters, including 404 permitting, wetland mitigation, and scoping and implementation of restoration projects.

In 1995 she joined the law firm of Campbell George & Strong, L.L.P. As an environmental attorney, Ms. Kuhn represents corporate clients on permitting and compliance matters involving CERCLA, RCRA, CWA, OPA, NEPA and the Endangered Species Act (ESA). She continues to provide counsel to her clients on all aspects spills, discharges or releases of oil or hazardous substances. In 1997, Ms. Kuhn was selected to serve as a member of the Chemical Transportation and Advisory Committee (CTAC), a distinguished advisory committee in Washington D. C., which provides advice and consultation to the Department of Transportation (DOT) with respect to the regulation of water transportation of hazardous materials in bulk. She also has specific expertise in legal and technical matters pertaining to endangered species, environmental liability management, management of ecological risk assessments, the development of supplemental environmental projects (SEPs), the development of restoration projects. She is well versed in the use of remediation/restoration options analysis, Habitat Equivalency Analysis (HEA), and Net Environmental Benefit Analysis (NEBA). In the last couple of years she has negotiated restoration based settlements with various Indian Tribes in several states.

Ms. Kuhn holds a Doctorate of Jurisprudence from South Texas College of Law where she is an Adjunct Professor, teaching environmental seminar courses such as the Endangered Species Act (ESA). She is licensed in Texas, and was a member of the State Bar College from 1996 till 1999. She has been a Registered Professional Geologist (R.P.G.) since 1996. She holds a B.S. in Geology and a minor in Biology. Ms. Kuhn became a Certified Mediator in the State of Texas in 1992 and has facilitated the resolution of numerous matters through the use of mediation.

THIRTEENTH ANNUAL TEXAS ENVIRONMENTAL SUPERCONFERENCE

THE USE OF A "STRATEGIC MONTE CARLO SIMULATION METHOD" TO QUANTIFY THE VALUE OF ENVIRONMENTAL LIABILITIES

Prepared by

Vance A. Fairchild
ECON Corporation
9219 Katy Freeway
Suite 201
Houston, Texas 77024

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THE USE OF A "STRATEGIC MONTE CARLO SIMULATION METHOD" TO QUANTIFY THE VALUE OF ENVIRONMENTAL LIABILITIES

I. INTRODUCTION

Virtually all-human activity involves some measure of risk. The necessity of identifying and quantifying such risks is critically important if one wants to minimize and manage these risks. Risk quantification strategies often involve an analysis of historical events in order to predict the future. For instance, have you ever wondered why it seems almost impossible to beat the "House" at a gambling establishment? The reason is that the House has figured out the aggregated average of ALL potential outcomes of the different games of chance. The House has established its rules for the players in order to guarantee that, in the long run, the House will always have an overall average (thus profit) in its favor. Clearly, in this example, an analysis of statistical probabilities has yielded a predictive, systematic strategy that mitigates risk and assures that, on average, the House will always win.

The same can be true for environmental liability evaluations. During most environmental liability assessments, there are numerous potential liabilities with multiple potential outcome scenarios. For each environmental liability, the likelihood of the liability occurring at any point in the future can be specified as the "probability of occurrence", and for each liability that actually occurs there is also a wide-ranging universe of potential mitigation scenarios that can be defined. With this information, the probability and resultant consequences of each mitigation scenario can be quantified. When approaching risk management and mitigation scenarios for environmental liabilities, a myriad of factors must be considered, of both direct and collateral effect, including considerations for less than well-defined issues (i.e., the "unknowns").

This paper demonstrates how Monte Carlo Simulation may be applied to predict and accurately quantify future environmental losses within a desired confidence interval. The methodology for using Monte Carlo Simulation for this purpose, along with two example applications, are discussed below. This paper concludes with a discussion of the proven benefits and practical limitations to this approach.

II. DESCRIPTION OF "STRATEGIC MONTE CARLO SIMULATION METHOD"

ECON has developed a concise, yet robust computer modeling technique, the "Strategic Monte Carlo Simulation Method" that can assist legal, environmental, and risk management professionals in risk quantification, risk management, and liability mitigation planning. ECON's approach is to quantify (via a desired confidence range) the cumulative costs of mitigating the liabilities for almost any project-specific circumstance. Through this modeling technique, ECON is able to produce for its clients a demonstrable and well-grounded analytical report, providing the client with a confidence interval, that the costs will fall within a defined range. Determining that range of total costs and the confidence interval (generally 90% or 95%) are two of the most important features that make the accuracy of ECON's modeling unique and valuable to our clients.

ECON's approach considers the probability of the environmental liabilities ever occurring (over a defined time horizon) and the certainty of the various mitigation scenarios that may be required for each of the defined environmental liabilities. As shown in Table II-1 – Monte Carlo Input Data, ECON's modeling takes into account environmental liabilities that may occur within the defined time horizon. For those that do occur, the modeling must further address the fact that it is also unknown which of the mitigation measures, in the universe of mitigation scenarios, will actually be required to address each of the liabilities.

Less sophisticated methods ("what-if" and "if-then" techniques) do not recognize the vast number of permutations of potential outcome combinations that can occur based on the above-mentioned uncertain interdependent and dependent variables. Non-simulation techniques can lead to inaccurate conclusions that do not consider the aggregate probability of occurrence and all of the individual cost versus probability functions of the outcome scenarios. These inaccurate conclusions can lessen one's knowledge in settlement negotiations, arbitration and litigation, or can result in less than optimal mitigation planning, costs and time management, and effectiveness.

To contrast, ECON's Strategic Monte Carlo Simulation Method is a comprehensive, purely objective technique that results in well-grounded, defensible, supportable arguments for quantifying future environmental losses. When a system contains elements that exhibit chance in their behavior, the Monte Carlo Simulation method of modeling future probabilities is ideal. The basis of ECON's Strategic Monte Carlo Simulation Method is experimentation on the chance (or probabilistic) elements through random samplings.

This Strategic Monte Carlo Simulation Method results in deterministic outcomes through an iterative process that delineates those specific outcomes. The process considers all reasonable facts and identified alternatives and takes into account variable dependencies and interdependencies, as they are evaluated in a five-step methodology that includes:

1) Setting up probability distributions for critical variables

2) Building a cumulative probability distribution for each variable
3) Establishing an interval of random numbers for each variable
4) Generating random numbers
5) Simulating a series of trials until desired confidence is achieved

First, each potential environmental liability is defined. Then for each liability, the likelihood of occurrence, now or anytime in the future, is specified. For each of these liabilities, potential mitigation scenarios are determined. Cost estimates for each mitigation scenario are developed along with a cash flow projection. The cash flow projection is used to establish a net present value of each mitigation scenario based on an assigned discount rate. The relative probability of each mitigation scenario is also defined (summing to 100% for each defined environmental liability, see Table II-1). This results in a cost vs. probability function for each defined environmental liability. A cumulative, probabilistic distribution and random number intervals are established for each of the uncertain variables:

- Probability of the liability occurring (random number interval of 1-100, representing 1% to 100%)

- Probability of which outcome scenario will occur to mitigate the liability (the sum of which equals 100%)

Special Note: **Developing the probability of occurrence for each environmental liability, and defining the cost versus probability relationship for potential mitigation scenarios requires detailed analysis of available environmental data. The input variables should be derived from the best possible source(s) including: company personnel, expert consultants and attorneys, regulators, etc. The simulation results are only as good as the quality of the input.**

- Each iteration of the Strategic Monte Carlo Simulation Method derives a value for <u>one</u> possible cumulative outcome for ALL the environmental liabilities over time. Each iteration consists of the following steps:

  1) If the generated random number is equal to or less than the assigned probability, the liability occurs and is designated with a 1. If the random number generated is greater than the assigned probability then the liability does not occur and is designated with a 0 (see Table II-2 – <u>Iteration Calculation</u>).

  2) If the random number generated falls within the random number interval established for a mitigation scenario (i.e. cumulative probabilistic distribution), that mitigation scenario occurs and is designated with a 1. The other mitigation scenarios do not occur and are designated with zeros. For example: Probability of occurrence for Low Estimate = 10% (interval

.01-.10), Medium Estimate = 40% (interval .11 – .50) and High Estimate = 50% (interval .51-1.00) and the random number generated is .44, then the Medium Estimate scenario occurs (see Table II-2).

3) Random numbers are generated for each liability and outcome scenario. The present value costs of the occurring outcome scenarios are summed to develop a single iteration of the cumulative value for all the environmental liabilities (see Table II-2).

4) Following each iteration, a running cumulative average of the environmental liabilities is calculated, along with the standard deviation and desired confidence intervals (e.g., 90% and 95%). The simulation is complete when the reported liability value within the desired confidence interval remains approximately constant (See Table II-3 – Output Table and Table II-4 -Output Summary Table.

TABLE II – 1
MONTE CARLO INPUT DATA

Discount Factor For NPV Calculations:	0.035

Number	Probability of Occurrence	Description	Probability of Low Estimate	Probability of Med Estimate	Probability of High Estimate	NPV of Estimate	Annual Expenditure 2002	2003	2004	2005	2006	2007	2008	2009	2010
1	0.70	Excavation and disposal of sediment and sand from waste pits as nonhazardous oilfield waste (NOW)	0.50	0.30	0.20	1,899,694	1,000,000	1,000,000							
						4,765,572	3,000,000	2,000,000							
						6,155,009	3,240,000	3,240,000							
2	0.30	Purchasing nearby residential homes to create greenbelt buffer zone	0.70	0.20	0.10	420,987	0	0	0	0	500,000				
						589,381	0	0	0	0	700,000				
						841,973	0	0	0	0	1,000,000				
3	0.90	Upgrade fire fighting system	0.50	0.30	0.20	1,310,624	500,000	500,000	400,000						
						1,540,900	550,000	550,000	550,000						
						1,680,982	600,000	600,000	600,000						
4	0.30	Modify flare to reduce/eliminate opacity violations	0.33	0.33	0.34	434,783	450,000								
						434,783	450,000								
						434,783	450,000								
5	0.50	Plug and abandonment of 5 historical/abandon exploration wells on property	0.20	0.50	0.30	119,139	75,000	50,000							
						166,632	100,000	75,000							
						238,279	150,000	100,000							
6	0.20	Wastewater issues requiring capital improvements to correct violations	0.30	0.20	0.50	458,265	30,000	170,000	300,000						
						531,368	30,000	200,000	350,000						
						732,005	30,000	270,000	500,000						
7	0.70	Soil and groundwater contamination in multiple areas across site	0.80	0.10	0.10	225,583	100,000	93,000	10,000	10,000	10,000	10,000	10,000		
						323,898	150,000	100,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
						546,637	200,000	150,000	130,000	20,000	20,000	20,000	20,000	20,000	20,000
8	1.00	Asbestos containing material abatement and future management	0.60	0.20	0.20	485,328	250,000	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
						626,988	300,000	300,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
						721,973	350,000	350,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
9	0.60	Soil and groundwater contamination from historical oil and gas production	0.50	0.30	0.20	349,251	0	0	0	0	0	125,000	125,000	100,000	100,000
						463,895	0	0	0	0	0	150,000	150,000	150,000	150,000
						613,032	0	0	0	0	0	200,000	250,000	170,000	170,000
10	1.00	Known additional fugitive air monitoring issues due to air regulations	0.50	0.30	0.20	456,461	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
						571,786	90,000	73,000	73,000	73,000	73,000	73,000	73,000	73,000	73,000
						635,447	118,000	73,000	73,000	73,000	73,000	118,000	73,000	73,000	73,000
11	0.60	Develop comprehensive waste management program for classification, handling, storage, & disposal of wastes for all assets	0.50	0.30	0.20	47,492	25,000	25,000							
						75,988	40,000	40,000							
						94,985	50,000	50,000							
12	0.70	Waste generation with first-time cleanout of process units	0.20	0.30	0.50	256,757	100,000	0	0	0	100,000	0	0	100,000	0
						333,784	130,000	0	0	0	130,000	0	0	130,000	0
						513,514	200,000	0	0	0	200,000	0	0	200,000	0
13	0.40	Potential fugitive air monitoring due to possible changes in air monitoring regulation changes	0.60	0.30	0.10	228,231	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
						294,045	50,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000
						390,046	60,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
14	1.00	Process heater post combustion NOx retrofit - SIP compliance	0.40	0.20	0.40	173,247	15,000	60,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
						279,084	15,000	100,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
						332,002	15,000	120,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
15	0.50	NORM contamination associated with historical exploration and pipelines on property	0.60	0.30	0.10	220,119	0	0	0	0	0	0	0	0	300,000
						366,865	0	0	0	0	0	0	0	0	500,000
						513,612	0	0	0	0	0	0	0	0	700,000

TABLE II - 2
ITERATION CALCULATION

CALCULATION of EXPECTED PRESENT VALUE

Number	Probability of Occurrence	Random Number	Simulation	Range of NPV's Low to High	Probability of Occurrence	Random Number	Simulation	NPV Chosen	Total Amount
1	0.7	0.64	1	1,899,694	0.50	0.32	1	1,899,694	1,899,694
				4,765,572	0.30		0		
				6,155,009	0.20		0		
2	0.3	0.08	1	420,987	0.70	0.24	1	420,987	420,987
				589,381	0.20		0		
				841,973	0.10		0		
3	0.9	1.00	0	1,310,624	0.50	0.42	1	1,310,624	0
				1,540,900	0.30		0		
				1,680,982	0.20		0		
4	0.3	0.49	0	434,783	0.33	0.49	0	434,783	0
				434,783	0.33		1		
				434,783	0.34		0		
5	0.5	0.95	0	119,139	0.20	0.85	0	238,279	0
				166,632	0.50		0		
				238,279	0.30		1		
6	0.2	0.27	0	458,265	0.30	0.79	0	732,005	0
				531,368	0.20		0		
				732,005	0.50		1		
7	0.7	0.40	1	225,583	0.80	0.35	1	225,583	225,583
				323,898	0.10		0		
				546,637	0.10		0		
8	1	0.95	1	485,328	0.60	0.16	1	485,328	485,328
				626,988	0.20		0		
				721,973	0.20		0		
9	0.6	0.02	1	349,251	0.50	0.91	0	613,032	613,032
				463,895	0.30		0		
				613,032	0.20		1		
10	1	0.25	1	456,461	0.50	0.99	0	635,447	635,447
				571,786	0.30		0		
				635,447	0.20		1		
11	0.6	0.34	1	47,492	0.50	0.14	1	47,492	47,492
				75,988	0.30		0		
				94,985	0.20		0		
12	0.7	0.10	1	256,757	0.20	0.11	1	256,757	256,757
				333,784	0.30		0		
				513,514	0.50		0		
13	0.4	0.72	0	228,231	0.60	0.70	0	294,045	0
				294,045	0.30		1		
				390,046	0.10		0		
14	1	0.41	1	173,247	0.40	0.21	1	173,247	173,247
				279,084	0.20		0		
				332,002	0.40		0		
15	0.5	0.10	1	220,119	0.60	0.01	1	220,119	220,119
				366,865	0.30		0		
				513,612	0.10		0		
									4,977,687

TABLE II – 3
OUTPUT TABLE

	% Complete	NPV Value	Running Average	Ave	Max	Min	Med	Std Dev.	90% Confidence	95% Confidence
1	SimTable	4,977,687	4,977,687	4,977,687	4,977,687	4,977,687	4,977,687	#DIV/0!	#DIV/0!	#DIV/0!
2	0	6,796,621	5,887,154	5,887,154	6,796,621	4,977,687	5,887,154	1,286,180	1,495,939	1,782,520
3	0.002008032	9,839,851	7,204,719	7,204,719	9,839,851	4,977,687	6,796,621	2,456,637	2,332,961	2,779,892
4	0.004016064	8,805,953	7,605,028	7,605,028	9,839,851	4,977,687	7,801,287	2,159,714	1,776,206	2,116,478
5	0.006024096	3,782,019	6,840,426	6,840,426	9,839,851	3,782,019	6,796,621	2,534,039	1,864,041	2,221,139
6	0.008032129	8,584,241	7,131,062	7,131,062	9,839,851	3,782,019	7,690,431	2,375,689	1,595,295	1,900,909
7	0.010040161	9,417,475	7,457,692	7,457,692	9,839,851	3,782,019	8,584,241	2,334,537	1,451,372	1,729,415
8	0.012048193	3,795,703	6,999,944	6,999,944	9,839,851	3,782,019	7,690,431	2,519,474	1,465,184	1,745,872
9	0.014056225	8,613,063	7,179,179	7,179,179	9,839,851	3,782,019	8,584,241	2,417,315	1,325,376	1,579,281
10	**0.016064257**	12,324,134	**7,693,675**	7,693,675	12,324,134	3,782,019	8,598,652	2,800,214	1,456,526	1,735,556
11	0.018072289	6,334,752	7,570,136	7,570,136	12,324,134	3,782,019	8,584,241	2,687,928	1,333,056	1,588,433
12	0.020080321	8,159,608	7,619,259	7,619,259	12,324,134	3,782,019	8,371,925	2,568,482	1,219,588	1,453,227
13	0.022088353	8,646,601	7,698,285	7,698,285	12,324,134	3,782,019	8,584,241	2,475,587	1,129,363	1,345,717
14	0.024096386	8,794,675	7,776,599	7,776,599	12,324,134	3,782,019	8,598,652	2,396,449	1,053,492	1,255,312
15	0.026104418	4,979,328	7,590,114	7,590,114	12,324,134	3,782,019	8,584,241	2,419,587	1,027,597	1,224,456
16	0.02811245	8,964,308	7,676,001	7,676,001	12,324,134	3,782,019	8,598,652	2,362,654	971,555	1,157,678
17	0.030120482	9,793,304	7,800,548	7,800,548	12,324,134	3,782,019	8,613,063	2,344,559	935,328	1,114,510
18	0.032128514	5,989,648	7,699,943	7,699,943	12,324,134	3,782,019	8,598,652	2,314,258	897,228	1,069,112
19	0.034136546	5,376,364	7,577,649	7,577,649	12,324,134	3,782,019	8,584,241	2,311,365	872,205	1,039,296
20	**0.036144578**	8,905,192	**7,644,026**	7,644,026	12,324,134	3,782,019	8,598,652	2,269,217	834,619	994,508
21	0.03815261	8,307,383	7,675,615	7,675,615	12,324,134	3,782,019	8,584,241	2,216,491	795,579	947,990
22	0.040160643	7,707,408	7,677,060	7,677,060	12,324,134	3,782,019	8,445,812	2,163,084	758,559	903,878
23	0.042168675	6,435,223	7,623,067	7,623,067	12,324,134	3,782,019	8,307,383	2,129,156	730,249	870,144
24	0.044176707	10,077,025	7,725,315	7,725,315	12,324,134	3,782,019	8,445,812	2,141,756	719,104	856,864
25	0.046184739	9,118,698	7,781,050	7,781,050	12,324,134	3,782,019	8,584,241	2,115,100	695,806	829,103
26	0.048192771	9,711,630	7,855,304	7,855,304	12,324,134	3,782,019	8,598,652	2,106,669	679,574	809,761
27	0.050200803	5,677,007	7,774,626	7,774,626	12,324,134	3,782,019	8,584,241	2,107,866	667,250	795,076
28	0.052208835	3,441,286	7,619,864	7,619,864	12,324,134	3,441,286	8,445,812	2,224,675	691,536	824,015
29	0.054216867	4,650,168	7,517,460	7,517,460	12,324,134	3,441,286	8,307,383	2,253,115	688,195	820,034
30	**0.0562249**	6,786,045	**7,493,080**	7,493,080	12,324,134	3,441,286	8,233,495	2,217,951	666,068	793,668
31	0.058232932	5,345,449	7,423,802	7,423,802	12,324,134	3,441,286	8,159,608	2,214,524	654,224	779,555
32	0.060240964	10,441,436	7,518,103	7,518,103	12,324,134	3,441,286	8,233,495	2,242,874	652,164	777,101
33	0.062248996	9,440,530	7,576,358	7,576,358	12,324,134	3,441,286	8,307,383	2,232,773	639,315	761,789
34	0.064257028	6,365,463	7,540,743	7,540,743	12,324,134	3,441,286	8,233,495	2,208,468	622,987	742,333
35	0.06626506	4,802,124	7,462,497	7,462,497	12,324,134	3,441,286	8,159,608	2,224,447	618,465	736,946
36	0.068273092	6,415,679	7,433,419	7,433,419	12,324,134	3,441,286	7,933,508	2,199,370	602,940	718,447
37	0.070281124	7,280,890	7,429,296	7,429,296	12,324,134	3,441,286	7,707,408	2,168,753	586,457	698,806
38	0.072289157	10,715,690	7,515,780	7,515,780	12,324,134	3,441,286	7,933,508	2,204,675	588,274	700,971
39	0.074297189	8,462,770	7,540,062	7,540,062	12,324,134	3,441,286	8,159,608	2,180,751	574,382	684,418
40	**0.076305221**	8,182,577	**7,556,125**	7,556,125	12,324,134	3,441,286	8,171,093	2,155,007	560,461	667,830
41	0.078313253	5,423,681	7,504,114	7,504,114	12,324,134	3,441,286	8,159,608	2,153,802	553,275	659,267
42	0.080321285	8,754,495	7,533,885	7,533,885	12,324,134	3,441,286	8,171,093	2,136,105	542,157	646,019
43	0.082329317	9,770,736	7,585,905	7,585,905	12,324,134	3,441,286	8,182,577	2,137,911	536,269	639,003
44	0.084337349	6,415,625	7,559,308	7,559,308	12,324,134	3,441,286	8,171,093	2,120,258	525,762	626,484
45	0.086345382	1,822,810	7,431,830	7,431,830	12,324,134	1,822,810	8,159,608	2,263,758	555,074	661,411
46	0.088353414	5,103,985	7,381,225	7,381,225	12,324,134	1,822,810	7,933,508	2,264,624	549,217	654,432
47	0.090361446	10,282,835	7,442,961	7,442,961	12,324,134	1,822,810	8,159,608	2,279,510	546,915	651,689
48	0.092369478	3,922,361	7,369,615	7,369,615	12,324,134	1,822,810	7,933,508	2,311,673	548,824	653,963
49	0.09437751	6,517,427	7,352,224	7,352,224	12,324,134	1,822,810	7,707,408	2,290,704	538,267	641,384
50	**0.096385542**	4,127,246	**7,287,724**	7,287,724	12,324,134	1,822,810	7,494,149	2,312,627	537,957	641,015
51	0.098393574	5,726,721	7,257,116	7,257,116	12,324,134	1,822,810	7,280,890	2,299,795	529,702	631,178
52	0.100401606	9,536,743	7,300,955	7,300,955	12,324,134	1,822,810	7,494,149	2,298,976	524,396	624,856
53	0.102409639	3,991,302	7,238,509	7,238,509	12,324,134	1,822,810	7,280,890	2,321,707	524,562	625,053
54	0.104417671	9,205,843	7,274,941	7,274,941	12,324,134	1,822,810	7,494,149	2,315,231	518,232	617,511
55	0.106425703	5,771,753	7,247,610	7,247,610	12,324,134	1,822,810	7,280,890	2,302,632	510,705	608,542
56	0.108433735	6,671,974	7,237,331	7,237,331	12,324,134	1,822,810	7,038,755	2,282,899	501,787	597,916
57	0.110441767	10,529,775	7,295,093	7,295,093	12,324,134	1,822,810	7,280,890	2,304,071	501,979	598,144
58	0.112449799	9,616,292	7,335,114	7,335,114	12,324,134	1,822,810	7,494,149	2,304,019	497,621	592,952
59	0.114457831	5,790,638	7,308,936	7,308,936	12,324,134	1,822,810	7,280,890	2,292,903	491,006	585,069
60	**0.116465863**	6,382,889	**7,293,502**	7,293,502	12,324,134	1,822,810	7,038,755	2,276,530	483,420	576,030
61	0.118473896	5,227,269	7,259,630	7,259,630	12,324,134	1,822,810	6,796,621	2,272,928	478,683	570,385
62	0.120481928	9,834,442	7,301,159	7,301,159	12,324,134	1,822,810	7,038,755	2,277,815	475,828	566,983
63	0.12248996	4,702,654	7,259,913	7,259,913	12,324,134	1,822,810	6,796,621	2,282,966	473,104	563,737
64	0.124497992	6,830,514	7,253,203	7,253,203	12,324,134	1,822,810	6,813,567	2,265,411	465,783	555,015
65	0.126506024	6,091,059	7,235,324	7,235,324	12,324,134	1,822,810	6,796,621	2,252,260	459,504	547,532
66	0.128514056	5,014,602	7,201,677	7,201,677	12,324,134	1,822,810	6,791,333	2,251,523	455,860	543,190
67	0.130522088	7,801,096	7,210,623	7,210,623	12,324,134	1,822,810	6,796,621	2,235,601	449,246	535,309
68	0.13253012	3,144,413	7,150,826	7,150,826	12,324,134	1,822,810	6,791,333	2,272,985	453,387	540,244
69	0.134538153	9,976,573	7,191,779	7,191,779	12,324,134	1,822,810	6,796,621	2,281,712	451,818	538,373
70	**0.136546185**	9,167,876	**7,220,009**	7,220,009	12,324,134	1,822,810	6,813,567	2,277,398	447,731	533,504

TABLE II – 4
OUTPUT SUMMARY TABLE

	Number Of Simulations Run					
	25	**100**	**200**	**300**	**400**	**500**
Average Net Present Value	7,781,050	6,877,166	6,764,281	6,688,793	6,689,003	6,615,632
Maximum Net Present Value	12,324,134	12,324,134	12,324,134	12,324,134	12,324,134	12,324,134
Minimum Net Present Value	3,782,019	1,786,560	1,786,560	1,786,560	1,786,560	1,786,560
Standard Deviation	2,115,100	2,202,152	2,233,740	2,286,162	2,306,698	2,311,556
90% Confidence Band	695,806	362,222	259,803	217,107	189,709	170,038
95% Confidence Band	829,103	431,613	309,574	258,698	226,052	202,613
90% Confidence Value Falls Between:	8,476,856 7,085,245	7,239,387 6,514,944	7,024,084 6,504,477	6,905,900 6,471,686	6,878,712 6,499,294	6,785,670 6,445,594
95% Confidence Value Falls Between:	8,610,153 6,951,948	7,308,779 6,445,553	7,073,855 6,454,706	6,947,491 6,430,095	6,915,055 6,462,951	6,818,2 6,413,0

III. VARIOUS APPLICATIONS

In the last couple of years, ECON has utilized this Monte Carlo Simulation Method to quantify environmental liabilities in the following applications:

- **Mergers and Acquisitions:** For over **twenty transactions** with a total market capitalization value in excess of **$8 billion**, applied Monte Carlo Simulation Method to quantify environmental liabilities. Simulation results were used to: 1) provide insight for acquisition and divestiture bid and negotiation strategies, 2) identify, design and negotiate optimal risk transfer strategies, 3) identify, design and implement optimal risk management plans, and 4) hedge risks and develop environmental, health and safety budgets for future operations. Key benefits include: 1) develop competitive advantage in bidding (e.g., lower bid price by providing documented and realistic environmental liability estimates), 2) generate increased value in risk-transfer provisions provided by seller (e.g., more favorable indemnification provisions and higher purchase price discounts), 3) create savings in implementing risk management options (e.g., reduced premiums in purchasing environmental insurance), and 4) provide certainty to future performance of assets.

- **Resolve Environmental Disputes:** For several legal cases / disputes involving over $50 million of environmental liabilities and claims, applied Monte Carlo Simulation Method to assist our clients in obtaining favorable settlements. In cases where the simulation results were NOT shared with opposing parties, an advantage was provided to our clients from the high confidence in the quantified liability values, and being able to revise liability estimates real-time during settlement negotiations. In other cases, the Monte Carlo Simulation Method has been an ideal tool for obtaining consensus of the value of environmental liabilities amongst opposing parties. This consensus is obtained by negotiating input to the Monte Carlo model through facilitated sessions with both parties agreeing to accept simulated liability values. The tool has also been used to quantify acceptable settlement terms, and define acceptable outcomes for indemnity disputes to avoid costly litigation.

- **Develop Environmental, Health and Safety Budgets:** For several clients, applied Monte Carlo Simulation to develop mid and long-term (1 to 10 years) environmental, health and safety budgets with desired confidence intervals for use in projecting future performance of existing operations, private and public stock offerings, and recently acquired assets.

A. APPLICATION: CORPORATE MERGERS AND ACQUISITIONS

Note: This example uses a mock scenario to illustrate an appropriate situation to use the Monte Carlo Risk Simulation Method and to demonstrate the benefits. The situation and company names are fictional and do not represent any specific companies and / or assets.

You are the Director of Environmental Affairs for Sunlight Energy Company (Sunlight) and six weeks ago you were told that your company is considering the acquisition of Rabbit Ears Petroleum Corporation's (Rabbit Ears') upstream, mid-stream, and pipeline transmission business units. The assets have a market capitalization of approximately $750 million and are located across the United States. Sunlight Energy has a market capitalization of $25 billion. The Vice President of Business Development tasked you with evaluating the environmental risks related to this acquisition and developing risk mitigation strategies to: 1) increase the market competitiveness of Sunlight's bid (binding bid due in six weeks) and, 2) preserve / enhance the value and future performance of the assets.

Upon reviewing the offering memorandum for the assets, you established a team consisting of your compliance manager, key internal staff and ECON to conduct an environmental due diligence evaluation and prepare a risk management plan to support the acquisition of the assets. Three weeks later, you received a preliminary report identifying several environmental liabilities related to Rabbit Ears' assets. The preliminary report provides: 1) summary of each environmental liability, 2) conclusions regarding the likelihood of the various liabilities occurring, and 3) potential mitigation scenarios if the liabilities do occur, along with cost estimates and cash flows for each scenario (low, medium, and high). Table III-1 Rabbit Ears' Environmental Liability Summary provides the preliminary environmental due diligence information. For convenience on Table III-1, environmental liabilities have been categorized into three levels: Level I (99+% probability of occurrence); Level II (33% - 99% probability of occurrence); and Level III (less than 33% probability of occurrence).

The total cumulative value of environmental liabilities (range from $11 million to $40 million) is of significant concern due to 1) the magnitude of the high end of the range - $40MM; and 2) the wide spread between the high and low cumulative estimates. From several acquisition venture meetings, you know a $40 million estimate of the environmental liabilities will likely be a "deal-killer." However, your Company's recent acquisition of Black Oil Company is an unpleasant reminder to everyone that an overly aggressive assumption of liabilities (i.e., low estimate of cumulative liabilities) can result in a new acquisition turning "upside-down" and can result in serious losses for your company's shareholders.

During a meeting, you suggest that your team use a Strategic Monte Carlo Simulation Method to more precisely quantify the value and timing of the environmental liabilities that will ultimately impact the Rabbit Ears' assets. You suggest a 90% confidence value for the environmental liabilities is appropriate to optimally integrate contingent

environmental risks into your company's bid strategy and post acquisition risk management plans. In order to derive the most accurate input variables to the Monte Carlo Simulation Method, you and your team: 1) review and modify, if necessary, the conclusions regarding the likelihood of the occurrence of the various environmental liabilities, 2) review and revise, if necessary, the cost estimates for the various potential mitigation scenarios, if and when, the liabilities occur, and 3) derive cash flow estimates for each potential mitigation scenario.

Upon completing the Monte Carlo Simulation, the overall 90% confidence value for the environmental liabilities is **$7.7 million (e.g. one can be 90% confident that the total environmental liabilities will not exceed $7.7MM)**, and separate 90% confidence values for Level I, II and III risk categories (See Tables III-2 Rabbit Ears' Monte Carlo Input and Table III-3 Rabbit Ears Monte Carlo Results). **It is important to note that the 90% confidence value is below the low end of the original liability estimate range.** This phenomenon is due to the relatively low probability of occurrence of several environmental liabilities, and the greater likelihood of relatively low cost mitigation outcome scenarios for several environmental liabilities. **Based on this knowledge, your company can be 90% certain that environmental liabilities will NOT exceed $7.7MM AND also have a significant advantage over competing bidders that quantify risks without the use of Monte Carlo using classical due diligence studies.**

You are now confident to meet with the Vice President of Business Development to discuss various options to handle environmental risks in your company's bid, and start working with the Risk Management and Loss Control and Legal Departments to develop risk transfer and management strategies (e.g., contractual indemnifications, finite risk transfer, pollution legal liability insurance, cleanup cost cap insurance, etc.).

TABLE III - 1
RABBIT EARS' ENVIRONMENTAL LIABILITY SUMMARY

Item	Level	Probability of Activity Occuring (%)	Description of Activity		Value of Outcome Scenarios			Probability of Outcome Scenario Occuring (%)
1	I	100%	Replace oil / water separator at Macon Terminal		Low	$	189,933	50%
					Medium	$	284,193	30%
					High	$	519,842	20%
2	I	100%	Removal of drums/piles of contaminated soil at Wycomb Station		Low	$	97,087	50%
					Medium	$	194,175	30%
					High	$	291,262	20%
3	II	70%	Remediation of soil and groundwater at Station 115		Low	$	211,702	50%
					Medium	$	360,058	30%
				0	High	$	891,385	20%
4	II	40%	Purchase residential properties adjacent to Station 115 due to off-site contamination		Low	$	970,874	80%
					Medium	$	1,941,748	10%
					High	$	3,826,939	10%
5	II	70%	Regulatory fines for noncompliance with state air regulations		Low	$	94,260	60%
					Medium	$	235,649	20%
				0	High	$	471,298	20%
6	II	60%	Acquistion of adjacent properties for greenbelt around terminals		Low	$	2,708,596	50%
					Medium	$	4,062,894	30%
				0	High	$	10,834,383	20%
7	III	20%	Upgrade of waste water system at Jonestown Terminal		Low	$	568,385	33%
					Medium	$	568,385	33%
					High	$	568,385	33%
8	III	20%	Upgrade of storage tanks to comply with SIP requirements		Low	$	3,326,709	33%
					Medium	$	5,682,544	33%
					High	$	13,099,792	34%
9	III	30%	Remediation of historical waste pits and burn pits at all terminal facilities		Low	$	457,145	20%
					Medium	$	709,283	50%
					High	$	2,127,987	30%
10	III	20%	Upgrade vapor recovery unit to meet air compliance regulations at multiple terminals		Low	$	1,941,748	30%
					Medium	$	2,912,621	20%
					High	$	7,766,990	50%
				TOTALS:	**Low**	**$**	**10,566,438**	
					Medium	**$**	**16,951,549**	
					High	**$**	**40,398,263**	

TABLE III – 2
RABBIT EARS' MONTE CARLO INPUT

Discount Factor For NPV Calculations:	0.030

Number	Level	Probability of Occurrence	Description	Probability of Low Estimate	Probability of Med Estimate	Probability of High Estimate	NPV of Estimate	Annual Expenditure 2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	1A	1.00	Replace oil / water separator at Macon Terminal	0.50			189,933	50,000	150,000									
	1A				0.30		284,193	50,000	250,000									
	1A					0.20	519,842	50,000	500,000									
	1A																	
2	1B	1.00	Removal of drums/piles of contaminated soil at Wycomb Station	0.50			97,087	100,000										
	1B				0.30		194,175	200,000										
	1B					0.20	291,262	300,000										
	1B																	
3	2A	0.70	Remediation of soil and groundwater at Station 115	0.50			211,702	100,000	30,000	20,000	20,000	20,000	20,000	20,000				
	2A				0.30		360,058	100,000	50,000	50,000	50,000	50,000	50,000	50,000				
	2A					0.20	891,385	200,000	300,000	75,000	75,000	75,000	75,000	75,000	30,000	30,000	30,000	30,000
	2A																	
4	2B	0.40	Purchase residential properties adjacent to Station 115 due to off-site contamination	0.80			970,874	1,000,000										
	2B				0.10		1,941,748	2,000,000										
	2B					0.10	3,826,939	2,000,000	2,000,000									
	2B																	
5	2C	0.70	Regulatory fines for noncompliance with state air regulations	0.60			94,260	0	100,000									
	2C				0.20		235,649	0	250,000									
	2C					0.20	471,298	0	500,000									
	2C																	
6	2D	0.60	Acquisition of adjacent properties for greenbelt around terminals	0.50			2,708,596	500,000	500,000	500,000	500,000	500,000	500,000					
	2D				0.30		4,062,894	750,000	750,000	750,000	750,000	750,000	750,000					
	2D					0.20	10,834,383	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000					
	2D																	
7	3A	0.20	Upgrade of waste water system at Jonestown Terminal	0.33			568,385	100,000	500,000									
	3A				0.33		568,385	100,000	500,000									
	3A					0.33	568,385	100,000	500,000									
	3A																	
8	3B	0.20	Upgrade of storage tanks to comply with SIP requirements	0.33			3,326,709	3,000,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
	3B				0.33		5,682,544	5,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
	3B					0.34	13,099,792	12,000,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000
	3B																	
9	3C	0.30	Remediation of historical waste pits and burn pits at all terminal facilities	0.20			457,145	200,000	50,000	50,000	50,000	50,000	50,000	50,000				
	3C				0.50		709,283	300,000	100,000	75,000	75,000	75,000	75,000	75,000				
	3C					0.30	2,127,987	700,000	300,000	200,000	200,000	200,000	200,000	200,000	100,000	100,000	100,000	100,000
	3C																	
10	3D	0.20	Upgrade vapor recovery unit to meet air compliance regulations at multiple terminals	0.30			1,941,748	2,000,000										
	3D				0.20		2,912,621	3,000,000										
	3D					0.50	7,766,990	8,000,000										
	3D																	

TABLE III – 3
RABBIT EARS' MONTE CARLO RESULTS

All Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	6,717,284	6,967,075	7,520,762	7,498,856	7,347,322	7,275,659
Maximum Net Present Value	21,459,764	25,664,047	25,754,256	33,739,146	33,739,146	33,739,146
Minimum Net Present Value	1,161,367	669,714	287,020	287,020	287,020	287,020
Standard Deviation	4,891,992	5,495,290	5,574,955	5,963,744	5,825,452	5,754,676
90% Confidence Band	1,609,321	903,895	648,416	566,351	479,101	423,314
95% Confidence Band	1,917,623	1,077,056	772,634	674,848	570,883	504,410
90% Confidence Value Falls Between:	8,326,605 5,107,963	7,870,970 6,063,181	8,169,178 6,872,346	8,065,206 6,932,505	7,826,423 6,868,222	7,698,973 6,852,344
95% Confidence Value Falls Between:	8,634,907 4,799,661	8,044,131 5,890,020	8,293,396 6,748,128	8,173,703 6,824,008	7,918,205 6,776,439	7,780,068 6,771,249

Tier I Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	465,699	442,888	438,981	443,733	450,295	445,214
Maximum Net Present Value	811,104	811,104	811,104	811,104	811,104	811,104
Minimum Net Present Value	287,020	287,020	287,020	287,020	287,020	287,020
Standard Deviation	181,492	148,122	144,767	143,635	146,788	146,382
90% Confidence Band	59,706	24,364	16,838	13,640	12,072	10,768
95% Confidence Band	71,143	29,031	20,063	16,254	14,385	12,831
90% Confidence Value Falls Between:	525,404 405,993	467,252 418,524	455,819 422,143	457,374 430,093	462,367 438,222	455,982 434,447
95% Confidence Value Falls Between:	536,842 394,556	471,919 413,857	459,044 418,918	459,987 427,480	464,679 435,910	458,045 432,384

TABLE II – 3 (CONTINUED)
RABBIT EARS' MONTE CARLO RESULTS

Tier II Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	3,397,734	3,697,162	3,786,180	3,840,482	3,863,820	3,888,998
Maximum Net Present Value	12,040,906	14,873,024	14,873,024	14,873,024	14,873,024	14,873,024
Minimum Net Present Value	94,260	0	0	0	0	0
Standard Deviation	3,490,559	3,705,071	3,659,628	3,543,799	3,513,168	3,460,496
90% Confidence Band	1,148,291	609,430	425,646	336,539	288,932	254,554
95% Confidence Band	1,368,272	726,179	507,188	401,011	344,284	303,320
90% Confidence Value Falls Between:	4,546,025 2,249,443	4,306,592 3,087,732	4,211,826 3,360,533	4,177,021 3,503,943	4,152,752 3,574,887	4,143,552 3,634,443
95% Confidence Value Falls Between:	4,766,006 2,029,462	4,423,341 2,970,982	4,293,368 3,278,991	4,241,493 3,439,471	4,208,103 3,519,536	4,192,317 3,585,678

Tier III Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	2,639,785	2,610,592	2,771,605	2,894,554	2,716,654	2,775,368
Maximum Net Present Value	13,449,534	14,125,322	15,041,539	15,041,539	15,041,539	15,227,779
Minimum Net Present Value	0	0	0	0	0	0
Standard Deviation	3,989,862	3,946,522	4,093,559	4,034,743	3,849,852	3,873,450
90% Confidence Band	1,312,547	649,145	476,116	383,162	316,622	284,931
95% Confidence Band	1,563,995	773,503	567,327	456,565	377,278	339,516
90% Confidence Value Falls Between:	3,952,332 1,327,238	3,259,737 1,961,447	3,247,722 2,295,489	3,277,716 2,511,392	3,033,276 2,400,032	3,060,299 2,490,436
95% Confidence Value Falls Between:	4,203,780 1,075,790	3,384,095 1,837,089	3,338,932 2,204,278	3,351,119 2,437,989	3,093,932 2,339,376	3,114,884 2,435,851

B. APPLICATION: NEGOTIATING INDEMNIFICATION BUY-OUT

Note: This example uses a mock scenario to illustrate an appropriate situation to use the Monte Carlo Risk Simulation Method and to demonstrate the benefits. The situation and company names are fictional and do not represent any specific companies and / or assets.

You are the Environmental Attorney for Sunlight Energy (Sunlight). Sunlight is expending significant resources ($1 million to date, $2 million future liability estimate) to address several environmental remediation liabilities at the Black River and Gold Coast Refineries which were acquired from Black Oil Company (Black Oil) three and one-half years ago. Black Oil indemnified Sunlight against losses to address these environmental liabilities for a term of five years with a $10 million limit and $1 million deductible. Sunlight has regulatory responsibility and control of the covered environmental remediation liabilities. Six months ago, Sunlight submitted its first claim in the amount of $300K for environmental remediation activities to be conducted over the next six months at the Black River Refinery. Unfortunately, Black Oil vehemently disputed the claim, thus setting an adverse climate for obtaining current and future payments for environmental remediation activities covered under Black Oil's indemnification.

Black Oil has a significantly different corporate culture and environmental management philosophy than that of Sunlight. Therefore, Black Oil disagrees with Sunlight's environmental remediation approach at the Black River Refinery and will likely disagree with Sunlight's plans to address other environmental remediation liabilities covered under Black Oil's indemnification. During recent conversations with Black Oil's attorney, Black Oil acknowledged their responsibilities under the indemnity agreement, but reiterated their disagreement with the Sunlight's proposed approach at the Black River Refinery. Sunlight's attorney suggested that Black Oil consider a "buy-out" of its indemnification responsibility in order to avoid future legal disputes over claims. Black Oil was receptive to this approach if both sides could agree on an aggregate amount to cover current and potential future claims.

You contact your Environmental Director and propose the strategy of negotiating a "buy-out" with Black Oil that will adequately protect Sunlight from expected losses attributable to environmental remediation liabilities covered under Black Oil's indemnity. Having just used the Monte Carlo Simulation Method for valuing environmental liabilities related to the acquisition of Rabbit Ears Petroleum Corporation, your Environmental Director suggests conducting a facilitated session during which both parties agree to establish and present their opinions to the appropriate issues and magnitude of liabilities covered under the indemnity agreement. In this session, the parties agree on the issues at-play and provide their respective insight to the probability of occurrence and magnitude of cost for each issue. **From this session, the input variables for the Monte Carlo Simulation Method are established; and upon running the simulation with an agreed-upon discount factor and confidence interval, the appropriate "buy-out" is derived. This number is not negotiated because both sides already agreed on the appropriateness of the input values.**

Using this negotiations approach, the two companies determined they really did not differ that much on the aggregate value of the indemnity; and upon taking into account the probabilities and statistical profiles of the various issues, the parties reached agreement from an objective basis. Sunlight and Black Oil agreed to the environmental liability information shown in Table III-4 Environmental Liabilities at Former Black Oil Refineries and Table III-5 Black Oil Buy-Out Monte Carlo Results. **Fortunately, the resolution is a real "Win-Win"; the agreed upon $3.4 million amount exceeds Sunlight's initial estimate of expenditures for liabilities covered by the indemnity, and Black Oil believes they have "walked away" from an indemnification that was possibly going to result in alleged claims totaling the full $10 million indemnification limit, and they eliminate these issues as part of their financial reserves.**

TABLE III – 4
ENVIRONMENTAL LIABILITIES AT FORMER BLACK OIL REFINERIES

Discount Factor For NPV Calculations:	0.030

Number	Level	Probability of Occurrence	Description	Probability of Low Estimate	Probability of Med Estimate	Probability of High Estimate	NPV of Estimate	Annual Expenditure 2002	2003	2004	2005	2006	2007	2008	2009	2010
1	1A	1.00	Closure of abandoned RCRA permitted waste water treatment system at Black River Refinery	0.20			571,295	300,000	200,000	100,000						
	1A				0.20		909,305	500,000	300,000	100,000	10,000	10,000	10,000	10,000	10,000	10,000
	1A					0.60	1,593,042	1,000,000	300,000	100,000	50,000	50,000	50,000	50,000	50,000	50,000
	1A															
2	1B	1.00	Long term monitoring associated with risk based closure of ground water contamination at Gold Coast Refinery	0.30			91,594	20,000	20,000	20,000	20,000	20,000				
	1B				0.20		137,391	30,000	30,000	30,000	30,000	30,000				
	1B					0.50	389,305	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
	1B															
3	2A	1.00	Remediation of known LNAPL plume at Gold Coast Refinery	0.20			152,820	100,000	30,000	30,000						
	2A				0.30		189,974	100,000	50,000	50,000						
	2A					0.50	465,034	250,000	50,000	50,000	50,000	50,000	50,000			
	2A															
4	2B	1.00	Remediation of known DNAPL plume at Black River Refinery	0.30			266,351	200,000	20,000	20,000	20,000	20,000				
	2B				0.30		374,616	200,000	50,000	50,000	50,000	50,000				
	2B					0.40	1,018,855	750,000	100,000	50,000	50,000	50,000	20,000	20,000	20,000	20,000
	2B															
5	2C	0.70	Compliance with Consent Order for Dec. 1998 release at Gold Coast Refinery - assessment and remediation	0.30			97,087	100,000								
	2C				0.50		194,175	200,000								
	2C					0.20	201,788	20,000	100,000	30,000	30,000	20,000	20,000			
	2C															
6	2D	0.60	Settlement for off-site impacts at Black River Refinery	0.30			48,544	50,000								
	2D				0.20		97,087	100,000								
	2D					0.50	485,437	500,000								
	2D															
7	3A	0.30	Regulatory fines associated with out of compliance waste water treatment system at Black River Refinery	0.70			48,544	50,000								
	3A				0.20		72,816	75,000								
	3A					0.10	97,087	100,000								
	3A															
8	3B	0.30	Purchase of adjacent property around Gold Coast Refinery for buffer zone	0.30			0	0								
	3B				0.60		291,262	300,000								
	3B					0.10	970,874	1,000,000								
	3B															
9	3C	0.30	Future corrective action associated with currently unknown contamination at Gold Coast Refinery	0.10			48,544	50,000								
	3C				0.40		327,564	200,000	30,000	30,000	30,000	30,000	30,000			
	3C					0.50	894,899	500,000	200,000	100,000	50,000	50,000	50,000			
	3C															
10	3D	0.30	Future corrective action associated with currently unknown contamination at Black River Refinery	0.30			316,944	150,000	50,000	50,000	50,000	20,000	20,000			
	3D				0.20		894,899	500,000	200,000	100,000	50,000	50,000	50,000			
	3D					0.50	1,923,988	750,000	500,000	250,000	100,000	100,000	100,000	100,000	100,000	100,000
	3D															

TABLE III – 5
BLACK OIL BUY-OUT MONTE CARLO RESULTS

All Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	2,946,745	3,230,592	3,289,607	3,307,453	3,316,652	3,357,146
Maximum Net Present Value	5,117,882	6,173,505	6,173,505	6,173,505	6,173,505	6,383,211
Minimum Net Present Value	1,621,858	1,310,643	1,310,643	1,310,643	1,310,643	1,310,643
Standard Deviation	920,454	952,120	965,597	988,284	990,956	1,025,580
90% Confidence Band	302,802	156,610	112,307	93,853	81,499	75,442
95% Confidence Band	360,811	186,612	133,822	111,833	97,112	89,894
90% Confidence Value Falls Between:	3,249,547 2,643,942	3,387,202 3,073,982	3,401,914 3,177,299	3,401,306 3,213,600	3,398,151 3,235,153	3,432,587 3,281,704
95% Confidence Value Falls Between:	3,307,555 2,585,934	3,417,204 3,043,980	3,423,429 3,155,784	3,419,286 3,195,621	3,413,764 3,219,540	3,447,040 3,267,251

Tier I Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	1,507,817	1,496,366	1,487,613	1,506,789	1,493,202	1,499,311
Maximum Net Present Value	1,982,347	1,982,347	1,982,347	1,982,347	1,982,347	1,982,347
Minimum Net Present Value	662,890	662,890	662,890	662,890	662,890	662,890
Standard Deviation	528,565	490,879	468,900	463,613	463,492	459,021
90% Confidence Band	173,882	80,742	54,537	44,027	38,119	33,766
95% Confidence Band	207,193	96,210	64,985	52,462	45,421	40,234
90% Confidence Value Falls Between:	1,681,699 1,333,935	1,577,109 1,415,624	1,542,150 1,433,076	1,550,816 1,462,761	1,531,321 1,455,083	1,533,076 1,465,545
95% Confidence Value Falls Between:	1,715,010 1,300,624	1,592,577 1,400,156	1,552,598 1,422,628	1,559,250 1,454,327	1,538,623 1,447,781	1,539,545 1,459,077

TABLE III – 5 (CONTINUED)
BLACK OIL BUY-OUT MONTE CARLO RESULTS

Tier II Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	1,098,167	1,142,250	1,170,950	1,179,236	1,161,514	1,144,489
Maximum Net Present Value	2,067,413	2,172,114	2,172,114	2,172,114	2,172,114	2,172,114
Minimum Net Present Value	419,171	419,171	419,171	419,171	419,171	419,171
Standard Deviation	455,020	450,444	441,206	447,372	433,818	427,556
90% Confidence Band	149,688	74,091	51,316	42,485	35,678	31,451
95% Confidence Band	178,364	88,285	61,147	50,624	42,513	37,476
90% Confidence Value Falls Between:	1,247,855 948,479	1,216,342 1,068,159	1,222,266 1,119,633	1,221,721 1,136,751	1,197,192 1,125,836	1,175,940 1,113,038
95% Confidence Value Falls Between:	1,276,531 919,802	1,230,536 1,053,965	1,232,096 1,109,803	1,229,860 1,128,612	1,204,027 1,119,001	1,181,965 1,107,013

Tier III Environmental Liabilities - Number Of Simulations Run

	25	100	200	300	400	500
Average Net Present Value	712,759	657,160	620,345	602,567	630,859	623,606
Maximum Net Present Value	2,891,703	2,891,703	3,182,965	3,182,965	3,182,965	3,182,965
Minimum Net Present Value	0	0	0	0	0	0
Standard Deviation	831,140	767,494	758,245	752,089	766,200	756,023
90% Confidence Band	273,421	126,241	88,190	71,423	63,014	55,613
95% Confidence Band	325,800	150,426	105,085	85,105	75,086	66,267
90% Confidence Value Falls Between:	986,180 439,339	783,402 530,919	708,536 532,155	673,990 531,145	693,874 567,845	679,219 567,993
95% Confidence Value Falls Between:	1,038,559 386,959	807,586 506,735	725,431 515,260	687,673 517,462	705,946 555,773	689,873 557,339

IV. CONCLUSIONS and LIMITATIONS

The Monte Carlo Simulation Method is a unique and advanced means of quantifying environmental risks. **Results from this approach derive a competitive advantage in mergers and acquisitions, environmental disputes, and forecasting financial performance.** This competitive advantage stems from the logical consideration of the probability of environmental liabilities actually occurring, the cost versus probability relationship of various potential mitigation scenarios for each potential issue, the time value of money and/or internal "hurdle rates" to account for timing of occurrence, and the interdependence and independence of many variables in the overall system. **By modeling (simulating) with quality input and accurate logic algorithms, one can accurately establish an environmental liability value that represents the average of all possible outcomes; and consequently, have the information to make informed and sound business and risk management decisions.**

Like all business and computer modeling / simulation tools, ECON's Strategic Monte Carlo Simulation Method is limited by the quality of input (e.g., the probabilities of uncertain variables, values for mitigation scenarios and cash flow projections). The degree of precision and completeness in accumulating input facts and alternative risk mitigation strategies relates directly to the accuracy of the output projections. Another important consideration is that every individual simulation is unique, and the benefit of Monte Carlo ONLY results following simulating an adequate number of runs so that the spread for a given confidence interval converges. Upon convergence, the cumulative average represents the average of ALL liabilities from ALL potential combinations and permutations, in the aggregate, for that specific set of circumstances and input logic. Therefore, any inferences to future actual outcomes of individual liabilities, as compared to the aggregate simulated results, cannot be relied upon with certainty and issue-specific conclusions should not be derived using this tool alone. An alternative stochastic methodology should be used to develop an issue-specific "build-up" to the aggregate value resulting from the Monte Carlo simulation.

Biographies of Select ECON Corporation Principals

Vance A. Fairchild, REM, CHMM - President - ECON Corporation
Vance's professional specialization includes: risk management, liability assessment and capitalization, due diligence for corporate mergers and acquisitions, Monte Carlo risk simulation and stochastic decision analysis, legal and regulatory consulting, PRP cost allocation and insurance recovery, and environmental engineering. Prior to forming ECON Corporation, Vance was President of Eco-Systems, Inc., a regional environmental consulting firm, and prior to that he worked in various environmental and business assignments at Tenneco Energy. Typical projects that Vance has recently completed for clients include: quantifying environmental risks (value and timing) and capitalizing liabilities, implementing novel risk transfer strategies, innovative contracting and procurement, regulatory and technical consulting, third-party cost recovery, SEC reporting, toxic-tort litigation support, environmental information management systems, corporate valuations and financial business analysis, utility privatization initiatives, real property and liability transactions, and impaired asset monetization and reutilization. Vance has a Civil and Environmental Engineering degree from Texas A&M University and a Masters in Business Administration.

J.D. Kern - Vice President – ECON Corporation
J.D. is a co-founder of ECON where he leads the consulting practice in the areas of environmental risk evaluation and risk management. Previously, J.D. worked as an environmental consultant for Eco-Systems and Ecology and Environment, and prior to that he was an Officer in the U.S. Army. J.D. has particular expertise addressing environmental issues impacting oil and gas production, processing, and transportation assets; including refined product lines and terminals. J.D. has led numerous projects in the energy sector. Other relevant experience includes: risk based corrective action; feasibility studies; remedial design and action; contracting and procurement including incentivized contracting; strategy development and liability management relating to environmentally impaired properties and matters involving third parties; divestiture and re-utilization initiatives for impaired properties; business case decisional analysis including multi-attribute utility theory; environmental disclosures; regulatory compliance; risk evaluation of liabilities and compliance issues (value and timing); and budget and schedule controls. J.D. holds a BS in Petroleum Engineering from the Colorado School of Mines.

ECON Corporation

Better Solutions… Because they have to be.

ECON Corporation, an employee-owned Texas Company, provides cost-effective, risk-based business solutions that guide our clients through the maze of complex environmental issues and challenges facing companies and government in the 21st Century. ECON's staff consists of former regulators, seasoned environmental managers, engineers, scientists, business and financial analysts, and real estate experts. Our clients receive expert technical and regulatory support, and ECON specializes by developing solutions that consider and integrate with our client's business, financial and managerial objectives. ECON Corporation is comprised of two divisions, ECON Consulting and ECON Capital.

ECON Consulting specializes in providing environmental risk management and consulting services to industries, law firms and real estate developers. ECON provides environmental business management services that include: asset and corporate acquisitions and divestitures; environmental expense cost recovery; legal and regulatory support; and risk evaluation / liability analyses and risk management solutions. ECON Consulting also provides environmental engineering (assessment and remediation); water resource management; pipeline, LNG, and other industrial facilities permitting; regulatory compliance support, marine and port development, and air quality services.

ECON Capital invests in and / or implements programs outside the bounds of traditional environmental consulting. ECON's "Brownfields" ventures entail the purchase of environmentally impaired real estate, managing and / or transferring related liabilities, and redeveloping restored real estate to higher and better use. ECON Capital also invests, develops and implements new and innovative environmental technologies in the areas of pollution abatement, environmental investigation and remediation.

Fixed Price Environmental Liability Transfers For Superfund, Brownfield, And Other Contaminated Sites

Michael O. Hill[1]

Introduction

The process of negotiating (much less litigating) the cleanup of Superfund Sites is widely considered both expensive and inefficient. The "guesstimates" that developers, companies, and others interested in converting Brownfield Sites must face are often so risky that they prevent a Site cleanup. Finally, the haggling over the cost of environmental liabilities at sites that are the subject of a potential merger or acquisition can slow down or even stop the transaction.

Through fixed price liability transfers, however, Superfund PRPs, Brownfield developers, and prospective Merger/Acquisition Participants may make certain the final cost of their environmental liabilities and move on (or make an informed decision not to) from there. At Superfund (and other, similarly regulated) sites, they still obtain a government release (and contribution protection), and do so at a price substantially below that which the government offers while receiving broader protections (*e.g.*, against re-openers). At Brownfield Sites, they still obtain all the benefits that a particular state (or federal) program might offer. And at Merger/Acquisition sites, they can get the deal done by resolving with certainty the cost of the environmental liabilities.

The means by which PRPs may accomplish this is to settle with a private remediation company -- what EPA has labeled a "Superfund Company" or "SFC" -- and require the SFC to stand in the liable company's (or companies') shoes to perform the cleanup, pay the PRPs' share of the

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1 Michael Hill is Senior Vice President of TRC Companies, a publicly-traded company that accomplished the first (and only) multi-party liability transfer at a Superfund Site, and that is now cleaning up the largest Brownfields Site in the U.S. Mr. Hill is a graduate of Williams College and Yale Law School. Questions concerning this article can be directed to Mr. Hill at mhill@trcsolutions.com or 202/342-8826.

government's past and future costs, and otherwise stand fully in the PRP's shoes.

Unlike other SFCs, one company, TRC Companies, Inc., actually becomes a PRP and thus assures its clients (and the government) that it will remain liable to fully remediate the site *in perpetuity* and without regard to the amount, time period, or any other limits or exclusions to insurance. As added protection to the clients, TRC provides a full indemnity against any re-openers or additional environmental cost burdens of any kind. This indemnity comes not from an LLC or other subsidiary, but from TRC Companies, Inc., a national, public-traded company (trading on the NYSE) that has been in the environmental business for almost 40 years.

TRC has applied this "Exit Strategy® Program" at three Superfund Sites (including one with 3,000 PRPs); at the largest Brownfields Project in the U.S. (an individually-owned utility in the heart of Manhattan, allowing its conversion to a $2B waterfront residential/commercial development); at a portfolio of 18 natural gas plants that were acquired as a package; and at other sites (over 30 in all). At almost every site, TRC and its clients have used a unique Finite Insurance Policy through which the insurer begins paying out under the policy in the first month of the cleanup but pays TRC *only* as it achieves agreed cleanup milestones. Thus, the parties are protected against cost overruns in several ways: (1) their money is held in trust and paid to TRC *only* as the property is actually cleaned up; (2) the costs are insured (typically at more than twice the estimated cleanup cost); and (3) they get a full indemnity from TRC Companies, Inc.

This article describes three of the contexts in which TRC's Exit Strategy has been applied. While most of the attention is spent describing Superfund Sites, most of those mechanics also apply in the two other described contexts, as well as in others (*e.g.*, at sites that are the subject of expensive litigation where a fixed price might help the parties settle; and at sites that are held by bankrupt entities).

* * *

I. Superfund Sites.

An Exit Strategy settlement is entirely consistent with -- in fact it promotes -- the plain language and the policy objectives of the Superfund statute, its implementing regulations, and EPA's guidance. Indeed, without any legislative amendment or "Project XL"-type of regulatory waiver, such a settlement has already been accomplished at the 3,000-party Portland Bangor Waste Oil ("PBWO") Site in Wells, Maine. *State of Maine v. U.S. and Settling Nonfederal Defendants and TRC*, No. 00-64-B-C (D. Me. May 30, 2000).

Prior to the Maine settlement, the Wall Street Journal headlined that "*[The] Maine Experiment May Point The Way To Ending [The] Tangle Of Litigation Around U.S. Superfund Law*," (*WSJ*, Apr. 29, 1998). The article quoted then-Administrator Browner as stating that it "sounds like good old American ingenuity to me," and then-Senate Environment & Public Works Chair Robert Smith as stating that "This is a great idea . . . exactly what I'm trying to do at the federal level."

SFC settlements benefit regulators as well, because the regulators can deal with just one PRP instead of hundreds (or thousands); the cleanups are begun sooner and accomplished more quickly; and the entire cleanup is done with private dollars (thus preserving the "Superfund"). Following entry of the Maine decree, officials from the Maine Department of Environmental Protection hailed the settlement as "revolutionary." *BNA Daily Environment Reporter*, June 8, 2000, at A-6. And because of the settlement, the Maine site cleanup is already underway. By contrast, the State said, under the traditional Superfund approach, *i.e.*, suing the major PRP(s) and "let[ting] them sue everyone else, . . . it would have been a mess."

A. The Superfund Mechanics.

To illustrate an SFC transfer, let us use a hypothetical site where the State (or EPA) is estimating future cleanup costs at $50 million for settlement purposes but where actual costs could range from $25 million to $60 million. Used as a waste oil recycling facility over the past few

decades, the site is now dormant, its owner insolvent, and 200 parties identified as generator PRPs with waste contributions ranging from .001% to 10%.

The State has just issued General Notice letters to all PRPs and extended settlement offers to some. Specifically, it has offered complete cash-outs for free (or a nominal $1) to each of the 50 PRPs who contributed less than .002% of the waste (thus qualifying them as "*de micromis*") and, in order to begin to collect some revenue, it has offered "early *de minimis* cash-outs" to the 20 smallest PRPs, each of whom contributed 1% of the waste. However, consistent with EPA's guidance,[2] the State has demanded that each of the potential early *de minimis* settlors pay a 100% premium to avoid the risk of any re-openers. Thus, the 20 early *de minimis* settlors could get out now, but only by paying $1 million each (or 1% of $50M x 2). The other PRPs must wait indefinitely until EPA makes a settlement offer to them, or they must organize themselves to approach EPA with their own offer.[3]

In such a situation, if an SFC elects to get involved, it would extend a concurrent offer to *all* of the PRPs. Significantly, the SFC would not be constrained either by the State's (possibly conservatively high) cost estimate or by any guidance calling for a 100% premium, and thus it would be free to independently (through its own due diligence) determine the future costs (and the amount of the risk premium needed). Thus, the SFC could extend its own cash-out offers, based on its own cost estimates. More importantly, the SFC's offer would go not just to a small portion of the PRPs, but would go to *all* of the PRPs, so that the SFC could determine from the outset whether enough PRPs would participate to enable the SFC to perform the entire cleanup *plus* pay the insurance

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[2] EPA, *Streamlined Approach for Settlements With De Minimis Waste Contributors Under CERCLA Section 122(g)(1)(A)*, at 5, OSWER Dir. #9834.7-1D (July 30, 1993).

[3] Another alternative is, of course, to litigate. While litigation may be the most cost-effective solution in some cases, discussion of those cases are beyond the reach of this article (except to say that those, too, might be appropriate for SFC liability transfers).

premium. Significantly, the insurance would extend to all concerned -- the PRPs, the SFC, and even the State – and would cover *all* increases in environmental regulatory costs, from whatever source (*e.g.*, newly discovered contamination, a change in the remedy, *etc.*). Once enough PRPs elect to participate, then the SFC will immediately be contractually committed to each of the participating PRPs to enter into a consent decree making the SFC *statutorily* committed, *as a PRP*, to the State to perform the entire cleanup (and also to assume the participating PRPs' share of the government's past and future costs).

The *de minimis* PRPs would obtain a full cash-out, with no re-openers -- both from the SFC and from the State. Thus, each of the *de minimis* PRPs would forever be relieved of liability for the Site (and for less money than the State had demanded).

As for the major PRPs, as is true with every settlement made directly with EPA, major parties would in most cases be statutorily precluded from obtaining a complete cash-out (*i.e.*, with no re-openers) from *the government*. *See* CERCLA Sections 122(f). However, through an SFC settlement, the major PRPs could not only get *all* of the protections that the government could offer them through a direct settlement -- that is, the government's qualified release and its accompanying contribution protection, *see* CERCLA Sections 113(f), 122 -- but they would also receive protections against re-openers (in the form of a direct indemnity from the SFC and site-specific insurance).

An SFC would not endeavor to apply a liability transfer at a site unless, through its own due diligence, the SFC determined that it could offer a cash-out price substantially lower than that offered by the government. Thus, in every case, for *less* money than they would otherwise have to pay the government, all of the PRPs would be getting the same protections from the government (a full or qualified release, plus contribution protection). The major PRPs would be given additional protections as well (an indemnity and insurance) to protect against unknown contamination or cost overruns for other sources. And *all* PRPs would be able to enter into the settlement from the very

outset of a case, thus avoiding many of the transactions costs often associated with Superfund cases (*e.g.*, negotiation of the consent decree and myriad remedy documents; hiring and overseeing of consultants/contractors to perform the work; coordination with other PRPs; *etc.*).

Moreover, because their funds would be held in an independent and segregated trust established or approved by government order -- and would have been paid to resolve a claim under Superfund -- each of the PRPs could likely take an immediate tax deduction for the payments made into the fund even though many of the dollars might not be spent for several years. *See* Income Tax Regulations § 1.468B-1(c) (1)-(3).

Finally, as noted above, the SFC solution offers enormous advantages to regulators (and the public) as well. Specifically, the government:

> • need not use increasingly scarce Superfund resources for the cleanup[4] but can further the policy goal of encouraging private party cleanups[5];
>
> • need not be burdened with the transactions costs involved in dealing with thousands of PRPs, and can instead focus its efforts on achieving the public policy goal of prompt Site cleanup;[6]

---

[4] *See* October 1999 Interview of EPA Assistant Administrator Tim Fields, *Inside EPA's Superfund Report*, at 27 (Oct. 27, 1999) (trust fund balance expected to expire in the year 2001).

[5] EPA, *Interim CERCLA Settlement Policy*, OSWER Dir. 9835.0, at *5 (Dec. 5, 1984) ("In many circumstances, cleanups can be started more quickly when private parties do the work themselves, rather than provide money to the Fund. It is therefore preferable for private parties to conduct cleanups themselves."); *see also* EPA, *Addendum To The "Interim CERCLA Settlement Policy" Issued On December 5, 1984*, at *3 (Sept. 30, 1997) ("EPA should provide strong incentive for parties to conduct cleanups rather than wait until EPA pursues cost recovery claims."). [Please note that asterisked cites are to Policy pages as the documents appear on EPA's website].

[6] *See Interim CERCLA Settlement Policy*, at *7 ("Substantial resources should not be invested in negotiations with de minimis contributors, in light of the limited costs that may be recovered, the time needed to prepare the necessary legal documents, the need for Headquarters review, potential res judicata effects, and other effects . . . . "); *id.* at *5 (quoted *supra*, note 4, for the fact that cleanups can in many circumstances be started more quickly when private parties do the work).

- can work with a contractor that is both experienced and fully funded to complete the work, thereby streamlining the cleanup process and preserving the Superfund; and

- can meet its broader policy objective of reducing PRPs' transactions costs. *See, e.g.*, 63 Fed. Reg. 24784, 24792 (May 5, 1998).

In sum, PRP transfers of their liabilities are achievable under today's regulatory program and offer tremendous advantages to private parties, to regulators, and to the public. Some of the questions most frequently asked about these transferred liabilities are addressed below.

B. Common Questions In The Superfund Context.

1. *Would The SFC Assume PRP Status?*

While not a statutory pre-requisite, when TRC took over the PBWO Site in Maine it assumed PRP status, and EPA has insisted that SFCs assume PRP status at EPA sites. At non-EPA and/or individually-owned sites, the SFC *can* take ownership (and, depending on the property's value, reduce the cleanup cost accordingly), but the owner may also maintain ownership (and continue active operations) if it chooses.

2. *Would PRPs Be Parties To And Covered By The Settlement With The Regulators?*

Yes. Just as would be true in any Superfund case, the participating PRPs would be parties to and covered by the settlement with the government. Thus, the participating PRPs obtain a direct release from the government, and also obtain the contribution protections associated with such a release. *See* CERCLA Sections 113(f) and 122.

3. *What Assurance Will The Government Have That The SFC's Offer To The PRPs Will Be Reasonable And Fair, And Thus One That The Government Should Endorse?*

In virtually every conceivable instance, an SFC's settlement offer to the PRPs will be for less than the amount offered by the regulators. That fact alone should satisfy the regulators.

4. *Will The SFC Pursue The Non-Participating PRPs For Contribution So That They Will Also Be Required To Pay Their Fair Share?*

In almost all cases, yes. As is true of any PRP, the SFC will have a right of contribution against the non-settlors and may pursue that right. The SFC may also offer the non-settlors an opportunity to settle without litigation, but that offer will most likely not be as favorable as that given to the original participating PRPs.

II. Brownfield Sites.

The benefits of an Exit Strategy in the Brownfield context are similar to those in Superfund.

First, it requires no statutory amendment or other regulatory change.

Second, it helps the regulators in that they get to interact with an experienced cleanup contractor that is not only statutorily liable to them but also contractually liable to the original PRP to do the cleanup to No Further Action levels.

Third, all Brownfield advantages -- *e.g.*, tax breaks, funding - that would be available to the developer or other original entity can still be realized (either by TRC or the original entity), and the cost savings reflected in the fixed price. Indeed, in some states -- where a "polluting" party may not be eligible for a Brownfield program -- TRC might be, thus allowing the party to indirectly realize cost savings it otherwise could not obtain.

Fourth, to the extent that a company may have held more in reserves for the environmental liabilities than TRC needs for the cleanup, the company can take the balance out of reserves and declare it as income.

Finally, and perhaps most importantly, an Exit Strategy gives the developer absolute cost certainty (again, not limited by limits on insurance, time, or anything else). Thus (to simplify), if a developer knows that -- were a contaminated site cleaned up -- he could sell it for $10M, and if TRC guarantees the cleanup for $6M, the developer knows that, as long as he pays less than $4M for the site, he will make a profit. The developer is then free to focus its energies on the actual development (*e.g.*, building, leasing).

III. Merger/Acquisition Sites.

Finally, sites that are the subject or target of acquisitions realize virtually all of the above benefits plus more. Specifically,

- The acquiring company knows exactly how much the contamination will cost;

- The acquiring company does not have to depend on the seller's continued solvency in order to realize the benefits of an indemnity;

- The two companies can determine which of them would achieve a greater tax advantage by paying TRC, and structure the deal to fit that circumstance;

- The selling company no longer needs to worry about the costs of its contamination;

- The deal can get done (indeed, obtaining an Exit Strategy fixed cost estimate facilitates deals even if the Exit Strategy option is not employed; at a minimum, it gives both parties a real number by which to assess the environmental costs).

Conclusion

In sum, fixed price cleanups, when accompanied by a *full* guarantee from a company that is willing to become a PRP and otherwise guarantee that it will remediate the site irrespective of insurance availability, time, *etc.* offer cost savings to Superfund PRPs and cost certainty to developers, merger/acquirers, and other entities to allow them to accomplish Brownfield developments, merger/acquisitions, litigation settlements, and other transactions.

Exit Strategies For Contaminated Properties

Thirteenth Annual Texas Environmental Superconference
(August 2-3, 2001)

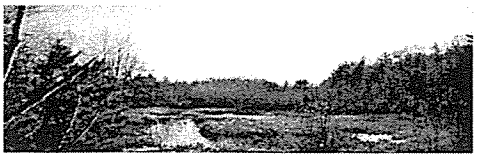
Michael O. Hill
Senior Vice President
TRC Companies, Inc.
202-342-8826
mhill@trcsolutions.com

General Description

- SFC Assumes Complete Liability For All Environmental Regulatory Liabilities
  - Assumption Is Contractual (To Clients), and Statutory (To Regulators)
  - Assumption Remains *In Perpetuity,* And Is Not Limited By Insurance Policy Amounts, Duration, Or Exclusions
- Insurer Acts As Insurer *and* Trustee
- TRC Companies, Inc. Provides Indemnity

1 TRC

Superfund Example



- Portland Bangor Waste Oil Site in Maine
- Over 2,900 PRPs (incl. DoD @ 27% share)
- Regulatory Standstill . . . High Transaction Costs With Little Remediation Progress

2 TRC

Individually-Owned/Brownfield Example

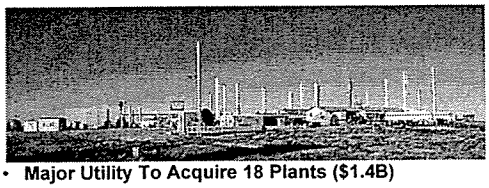
- 100-yr.-old Utility In Heart of Manhattan
- Dvpt. Potential:
  - $700MM Land Price
  - $2B Development
- Neither Buyer Nor Seller Willing To Accept Envir. Risk



3

TRC

M&A Example

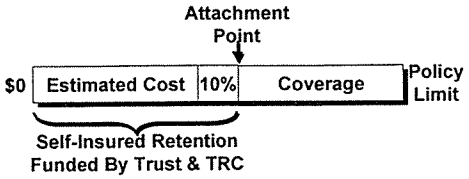


- Major Utility To Acquire 18 Plants ($1.4B)
- Buyer and Seller Could Not Agree on Cost of Environmental Cleanup (over $100M apart)

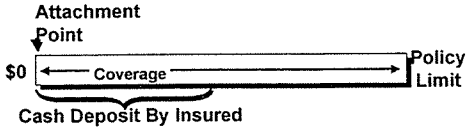
4

TRC

"Cost Cap" Insurance Policy



"Finite" Insurance Policy (up to 32 yrs.)

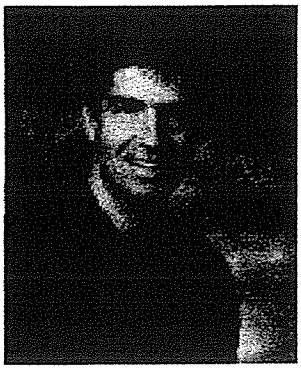


Regulatory Favor

- "Maine Experiment May Point The Way To Ending Tangle Of Litigation Around Superfund Law" (WSJ Headline, 4/29/98)
- "This is a great idea." (WSJ, quoting Senator R. Smith, then-Chair Of Sen. Env. & Pub. Works Comm.)
- "EPA likes the idea, because it could save enormous legal and transaction fees that can sometimes cost more than the cleanup itself." (*Boston Globe,* 7/3/01, quoting EPA's Jim DiLorenzo, Proj. Mgr. For 2,000-PRP Beede Waste Oil Site)

Summary Of Benefits

- Cost Certainty (usually less than EPA asks)
- Transactions Costs Reduced
- Insurance Trust, Plus Cost Cap Protection
- Possible Tax and Reserve Benefits
- Possible Regulatory Benefits
  - (*e.g.,* Brownfields; "New Face")
- The Cleanup/Dvpt./Transaction Gets Done
- Ability To Refocus On Core Business
- Full Indemnity From TRC
  - Not limited By Policy Amounts, Duration, or Exclusions
- Helps Regulators
  - One PRP; All Private Funds; Prompt Cleanup



Michael Hill's Bio For
The Thirteenth Annual Texas
Environmental Superconference

Michael Hill is Senior Vice President of TRC Companies, Inc., a publicly-traded company that, for a fixed price, assumes full statutory liability and guarantees complete cleanup at contaminated sites. As examples, last May, TRC substituted itself as the sole PRP to perform the entire cleanup at a Superfund Site with 3,000 parties, including the Department of Defense. In December, for $103M, TRC guaranteed cleanup of an individually-owned 3-block, 100-yr.-old utility site in the heart of Manhattan, enabling its conversion to $2B in commercial and residential properties, currently the largest Brownfield project in the country. TRC now has over 30 Sites in this program, known as the Exit Strategy® Program. A graduate of Williams College (1980) and Yale Law School (1984), Michael was previously an environmental trial attorney for the Department of Justice and a partner in private practice where he assisted numerous companies, including TRC, in environmental matters.

INSURANCE PRODUCTS FOR

- **M&A and Financing Transactions**
- **Balance Sheet Enhancement**

Presented by

Kenneth R. Pierce, *Senior Vice President*

LEHMAN BROTHERS
INSURANCE PRODUCTS GROUP
(212) 526-9525

Table of Contents

I. Introduction to Lehman Brothers' Insurance Products Group

II. Insurance Solutions -- Summary

III. Insurance for Environmental Liabilities

Appendix: Biography

I. Introduction to Lehman Brothers' Insurance Products Group

- Insurance is increasingly being used as a tool in corporate finance to manage liabilities and facilitate transactions.

- Lehman is the only investment bank to establish an in-house group of insurance professionals who develop insurance products in conjunction with capital market solutions to meet the needs of Lehman's clients in M&A, financing and other transactions.

- Lehman's Insurance Products Group has the capability to advise, structure and evaluate these products to help you:
  - Address balance sheet liabilities strategically or in advance of a transaction
  - Eliminate risks that arise during an M&A transaction

- Our group has expertise in both insurance and capital markets. We develop insurance and structured products to achieve transactional and capital market goals.

- Since we are licensed insurance brokers, we deal directly with the insurance markets and can procure products without the need of a separate intermediary.

I. Introduction to Lehman Brothers' Insurance Products Group

Lehman Brothers' Insurance Products Group has been involved in over $2 billion of risk transfers, providing clients with both structuring and execution expertise.

Advisory and Structuring Services

- Structure and evaluate insurance products
- Expertise bridges insurance and capital markets
- Work with Lehman's bankers and analysts to structure optimal insurance solution for capital markets goals

Brokerage and Procurement

- Client orientation in pricing and quality of insurance product
- Access to broader set of products than traditional brokers, including derivatives and structured products

Institutional Resources

- **Lehman Risk Advisors**: Advisory, structuring and brokerage
- **Lehman Re Ltd.**: $500 million in capital + LBH parental guarantee
- **Lehman Brothers Inc.**: Trading/market-making activity, research and analytics

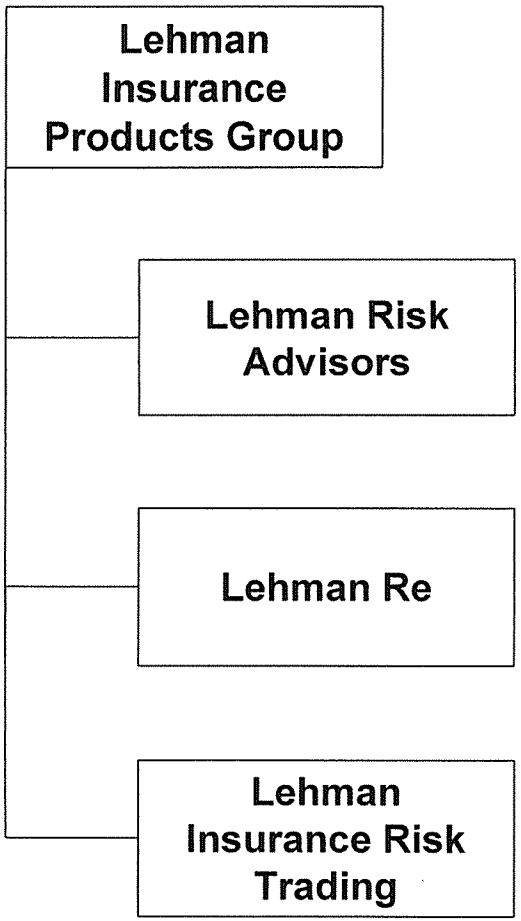
Insurance Staffing

- 34 professionals in New York, London and Bermuda, including:
  - 5 PhDs who provide state of the art quantitative modeling
  - 7 actuaries
  - 3 licensed insurance brokers
  - 5 attorneys
  - Capital markets sales and trading professionals

I. Introduction to Lehman Brothers' Insurance Products Group

Lehman Brothers' Insurance Products Group is comprised of three main divisions.

Organizational Structure



Sample Engagements

Lehman Risk Advisors

- Advisor/broker for major corporate asbestos loss portfolio transfer
- Advisor/broker for major corporate catastrophic product liability exposure
- Advisor/broker in corporate program to monetize excess collateral in assets
- Advisor/broker to parent company to transfer contingent liabilities in sale of subsidiary
- Reinsurance Co-Intermediary to the Florida Hurricane Catastrophe fund
- Exclusive advisor to Equitas Limited
- Structural advisor for major life reinsurance transaction
- Reinsurance coordinator for political risk protection used within a financing transaction

Lehman Re

- Life reinsurance of $400 million life/annuity reserves
- Largest participant in California Earthquake Authority
- Reinsurance Syndicate ($200 million of First Reinsurance Layer)
- Alternative Property/Catastrophe Risk Transfer Product structured for the Lloyd's Market

Lehman Insurance Risk Trading

- Sole Lead Manager for Seismic Ltd
- Co-Lead Manager for Prime Capital
- Four time Join Lead Manager for USAA's Residential Re
- Agent on XL's Risk Transfer Swap
- Active trading of insurance securities
- Chosen by Reactions magazine to be provider of Cat Bond Index

II. Insurance Solutions -- Summary

Insurance products have been used by corporations to manage a wide variety of liabilities in order to facilitate transactions, clean up existing balance sheet issues, reduce economic uncertainty, and manage rating agency and investor concerns. Examples of these insurance products are:

- **Insurance for Legacy Liabilities:**
  - Insurance is available to contain or transfer environmental, asbestos, product claims, worker's compensation, and other legacy liabilities.
  - This type of insurance may be an effective way to cleanse corporate balance sheets of environmental liabilities, possibly resulting in rating agency relief. In certain cases, insurance may facilitate legal release from state or federal regulators.
- **Insurance for Pending Litigation:**
  - Insurance is available to transfer catastrophic exposure from pending lawsuits, including shareholder and product liability litigation.
  - Transfer of litigation management as well as risk is also available in the form of "litigation buyouts."
- **Insurance for Representations and Warranties:**
  - Insurance can enable and facilitate transactions by eliminating the need for escrow and transferring transaction risks to the insurer and by increasing the amount or extending the term of an indemnity.
- **Successor Liability Insurance:**
  - Insurance is available to companies concerned about veil-piercing or successor liability when they purchase assets from companies with pending litigation or legacy liabilities.
- **Insurance for Tax Opinions:**
  - An insurance solution can be structured to guarantee a taxpayer will receive the benefits described in a tax opinion and avoid the costs, delay and uncertainty surrounding the private letter ruling process.
- **Insurance for Specific Contingencies:**
  - Insurance can mitigate unique "one-off" risks or contingencies arising in corporate transactions.

II. Insurance Solutions -- Summary

Insurance is emerging as an essential tool to facilitate mergers and acquisitions.

BUYER	SELLER
• Greater certainty in valuation	• Enhance sale price
• Expand list of potential targets	• Eliminate/reduce escrows
• Avoid post-transaction disputes	• Avoid indemnities
• Satisfy concerns of lenders	• Avoid post-transaction disputes
• Potential for strategic use	• Facilitate sale

III. Insurance for Environmental Liabilities

Companies are exposed to substantial risks, uncertainties and costs connected with environmental liabilities.

1. Risk that cleanup costs will be greater than expected -- known contamination
   - Cleanup cost overruns
   - Changes in regulatory standards

2. Risk of liability -- unknown contamination
   - Risk of cleanup costs
   - Risk of environmental enforcement proceedings

3. Financial Management Risks
   - Defense and litigation costs
   - Increased administrative and oversight costs
   - Investment mismatch with cash flow needs
   - Interest rate risk
   - Inflation risk

4. Risk of Third Party Claims
   - Adjacent property owner claims
   - Bodily injury claims

III. Insurance for Environmental Liabilities

Insurance can be an efficient tool to allocate and mitigate environmental risks.

Cost Cap / Stop Loss Insurance →

Known Contamination

Insurer assumes risk that cleanup exceeds expected cost due to:
- Undiscovered contamination
- Change in regulatory standard
- Cost overruns

Structured / Finite Insurance →

Known Contamination

Insurer guarantees fixed price cleanup
- Insurer assumes administration and oversight
- Insurer assumes interest rate and inflation risks
- Insurer assumes cash flow and timing of payout risk

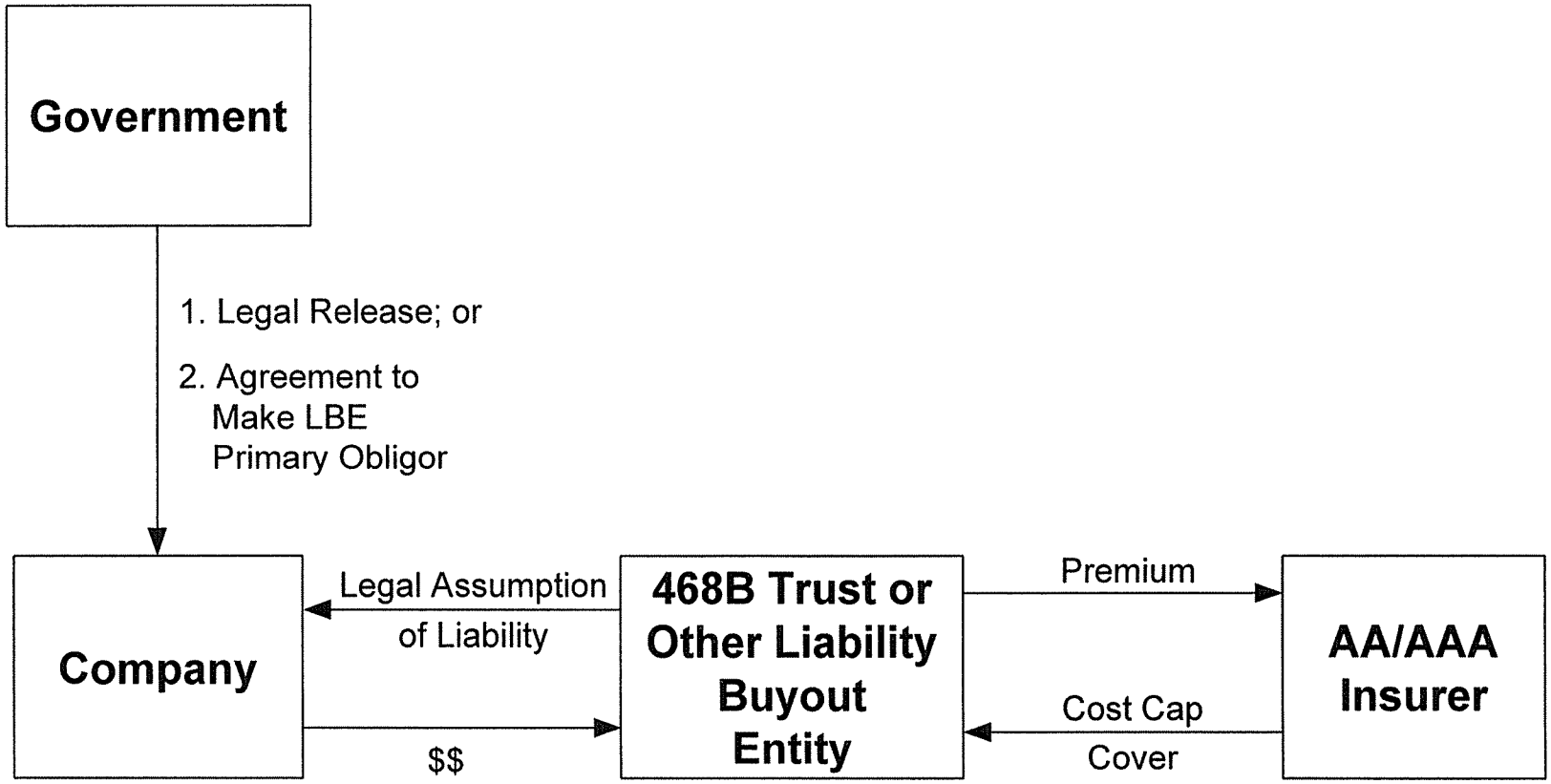
Pollution Legal Liability Insurance →

Unknown Contamination

- Insurer assumes risk of cleanup costs and legal defense costs
- Insurer defends and indemnifies third party claims
  - Property damage
  - Bodily injury

III. Insurance for Environmental Liabilities

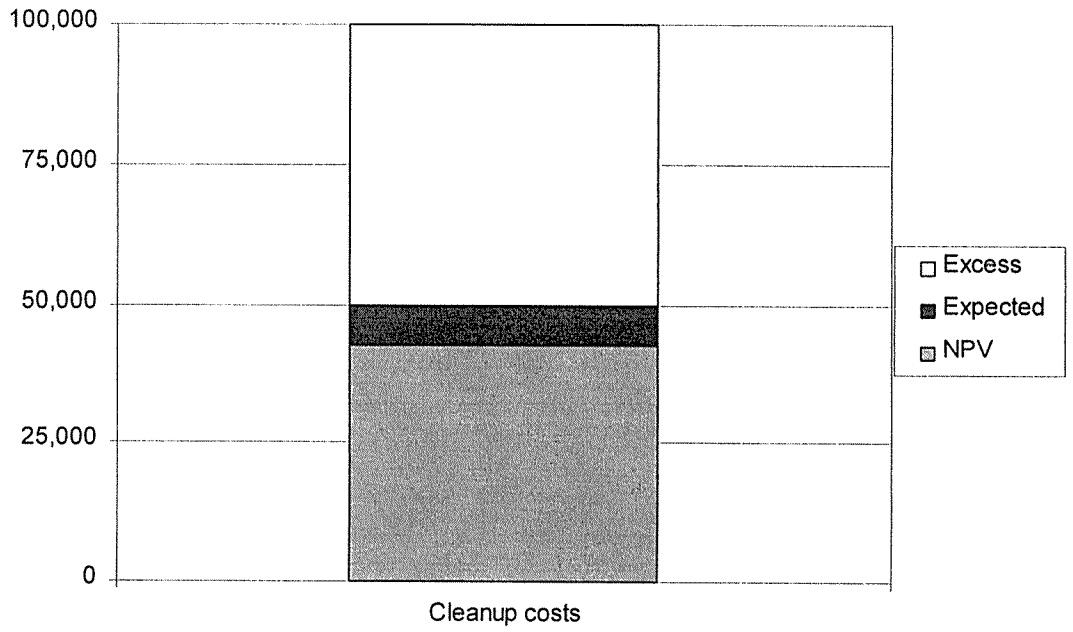
Insurance can extinguish environmental reserves and contingent liabilities from a company's balance sheet.



III. Insurance for Environmental Liabilities

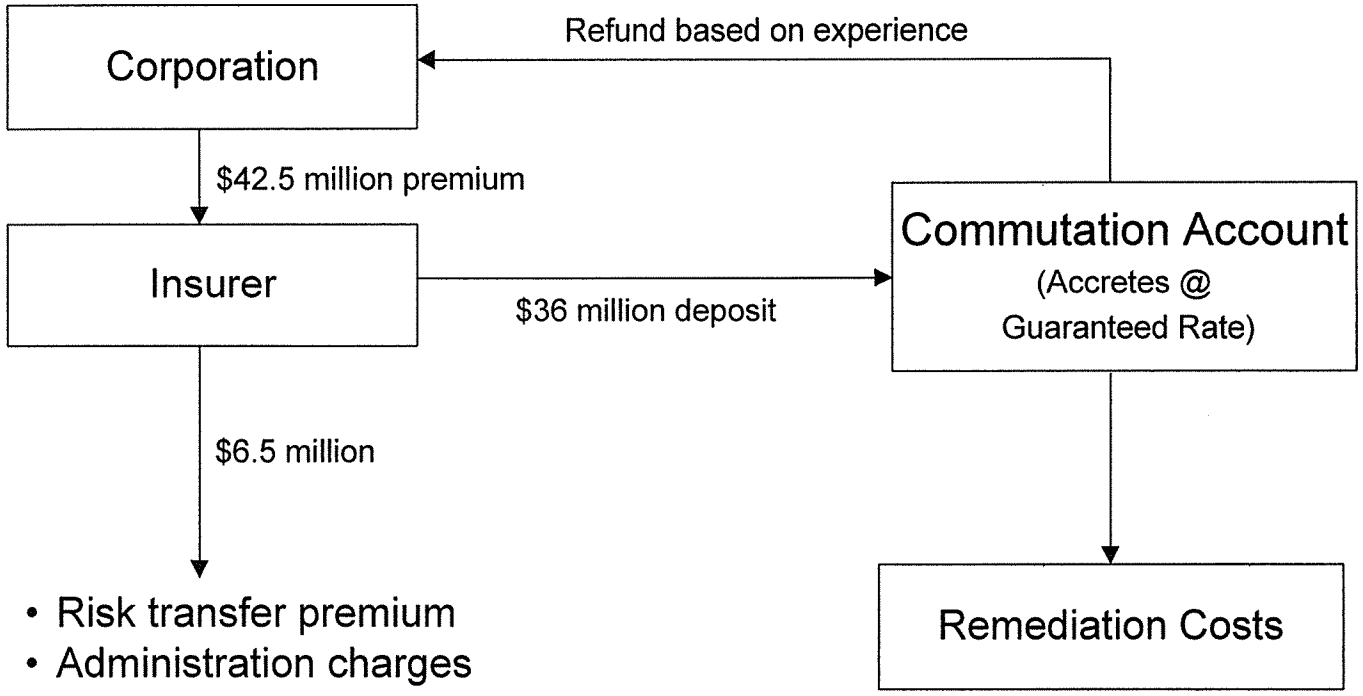
Hypothetical Policy: Blended Cost Cap / Structured

Current		**Coverage**	
Reserve	$50.0 million	Limits	$100.0 million
NPV of Expected	$36.0 million		
		Deposit Premium	$36.0 million
		Risk Transfer + Admin Charges	$6.5 million
		Total Premium	$42.5 million



III. Insurance for Environmental Liabilities

Company can receive partial refund of premium if cleanup is achieved at less than expected amount.



III. Insurance for Environmental Liabilities

Hypothetical Insurance Policy: Neutral or positive effect on Balance Sheet and Income Statement.

Premium=$42.5, Reserve=$50.0

BEFORE INSURANCE

Assets		Liabilities		Income Statement	
Cash	$100.0	Environmental	$50.0	Income	$75.0
				Expenses	($20.0)
				Net Income	$55.0

AFTER INSURANCE – NO LEGAL RELEASE

Assets		Liabilities		Income Statement	
Cash	$57.5	Environmental	$50.0	Income	$75.0
Insurance Receivable	$50.0	Deferred Gain	$7.5	Expenses	($20.0)
				Net Income	$55.0

AFTER INSURANCE – WITH LEGAL RELEASE

Assets		Liabilities		Income Statement	
Cash	$57.5	Environmental	$0.0	Income	$75.0
				Gain	$7.5
				Expenses	($20.0)
				Net Income	$62.5

III. Insurance for Environmental Liabilities

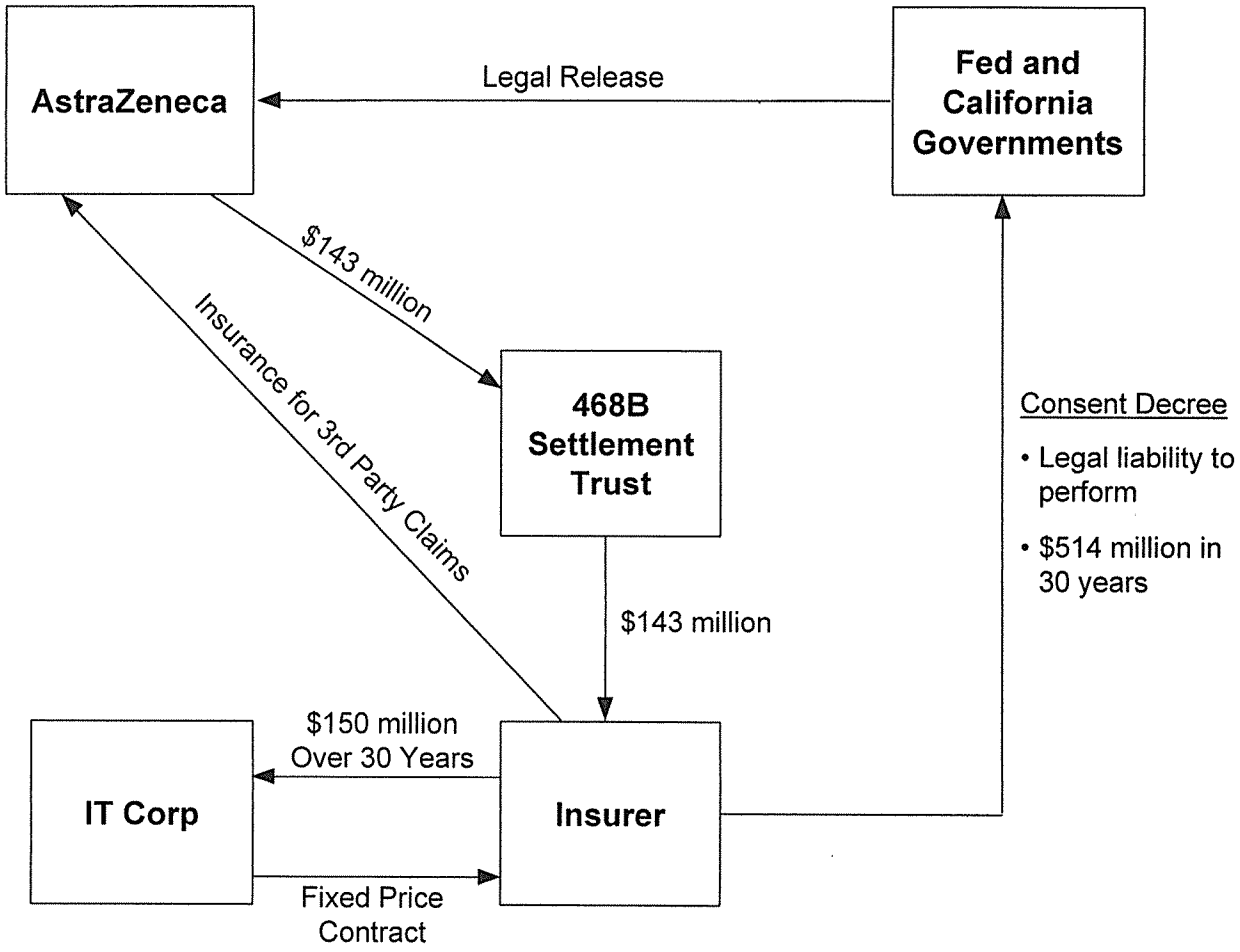
Example: Liability Extinguished

Iron Mountain: AstraZeneca extinguished potential liability of $1 billion through the purchase of an insurance policy.

- In October 2000, an environmental insurance policy facilitated the largest cash-out/structured settlement in the history of the Superfund and enabled AstraZeneca to extinguish reserves off of its balance sheet and eliminate potential future liability of $1 billion.
- The deal involved the Iron Mountain Site, one of the most hazardous sites in the country.
- AstraZeneca agreed to make a one-time, tax deductible payment of $143 million, which was used to purchase a fixed price remediation contract and an insurance policy to cover cost overruns, third party claims and other perils.
- The Insurer, which signed the consent decree and thereby became substituted as the PRP in place of AstraZeneca, will use the $143 million as follows:
  - $61 million: funds $5 million per year payout for 30 years
  - $19 million: premium for risk transfer (cost overruns and third party liability)
  - $64 million: set aside to fund $514 million balloon payment in 30 years (7.19% discount rate)
- The California and U.S. governments provided a full legal release to AstraZeneca, enabling it to extinguish the liability (reserves and contingent liability) from its balance sheet.
- AstraZeneca paid the $143 million from reserves and through commutation of historical liability insurance policies with no additional accounting impact.

III. Insurance for Environmental Liabilities

Iron Mountain: AstraZeneca also received an accelerated tax deduction through the transaction's use of a settlement trust.

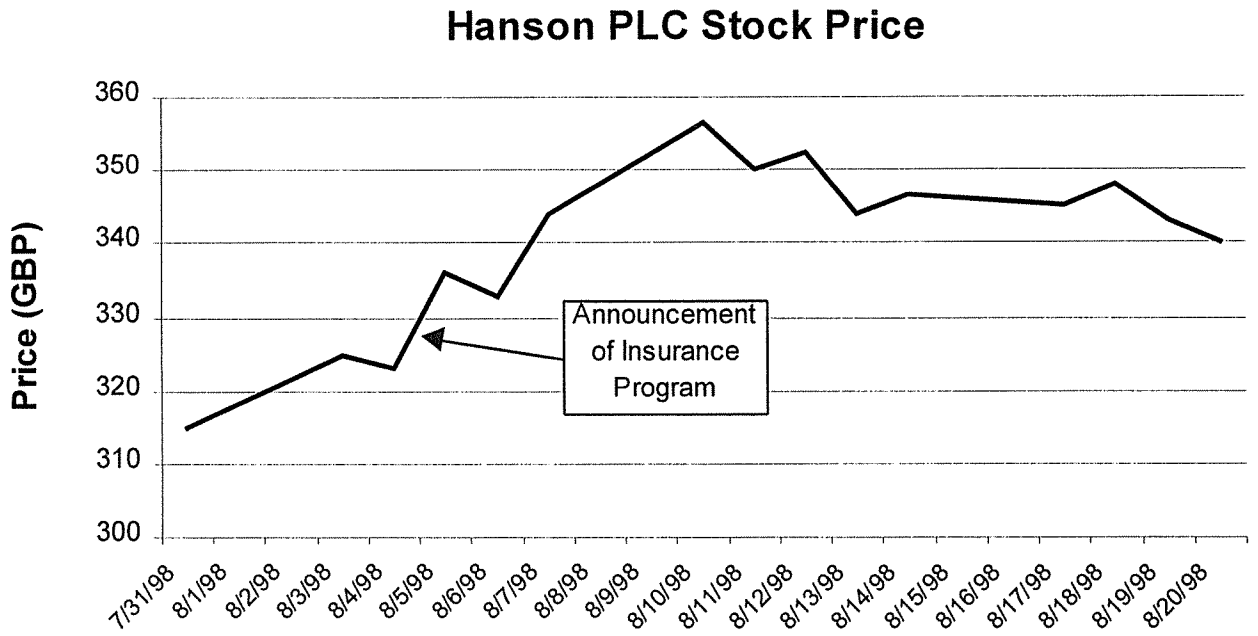


III. Insurance for Environmental Liabilities

Example: Insurance Caused Increase in Stock Price

Hanson PLC created over $480 million in value by transferring environmental liabilities to an insurer.

- When Hanson acquired Beazer PLC in 1991, it also inherited liability for contamination at over 200 sites formerly operated by Koppers, once a US subsidiary of Beazer.
- For a single tax-deductible premium of $275 million, Hanson secured $800 million of insurance coverage above a $100 million retention.
- The transaction resulted in an immediate $110 million net reduction in Hanson's book liability.

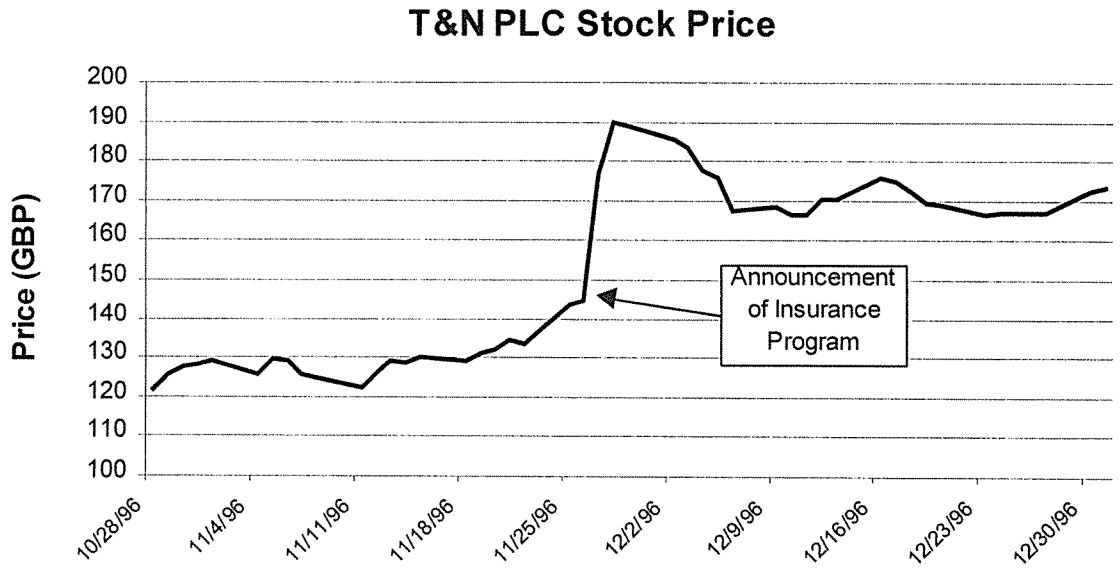


III. Insurance for Environmental Liabilities

Example: Asbestos Liabilities

T&N PLC increased its market value by purchasing insurance coverage, effectively removing uncertainty associated with asbestos liabilities that had threatened to overshadow its efforts in its core businesses.

- In 1996, T&N PLC undertook an effort to concentrate its focus on building the UK's leading automotive and industrial engineering group.
- Having been UK's largest asbestos manufacturer, T&N faced thousands of bodily injury claims.
- T&N took a $623 million charge to earnings in 1996 in order to structure an insurance transaction in which T&N retained the first $469 million (discounted) of loss, and paid a syndicate of insurers $154 million in premium to cover the next $835 million of loss.
- The company's stock price jumped by 30% upon announcing that it had purchased the insurance.



Appendix: Biography

Kenneth R. Pierce (Senior Vice President)
J.D., Harvard Law School, A.B., Brown University. Mr. Pierce has broad responsibilities in product development/ management and transaction underwriting and structuring. He works closely with Lehman's investment bankers in developing insurance and structured solutions to address corporate legacy liabilities, as well as products that address various risks in corporate M&A and financing transactions, including reps and warranties, tax opinions, and other contingent liabilities. Mr. Pierce has over 16 years of experience as an attorney, including nine years at the law firm Chadbourne & Parke (1989-1998), 4 years of which he was an equity partner in that firm. Mr. Pierce structures complex insurance and reinsurance transactions and handled many multi-million dollar environmental and asbestos reinsurance claims on behalf of major U.S. insurance companies. He is a member of the bars of New York, Florida and the District of Columbia. Mr. Pierce is also a licensed insurance broker.

LEHMAN BROTHERS

Fixing a Hole (In the Balance Sheet)



Kenneth R. Pierce, *Senior Vice President*
Insurance Products Group

New York: 1-212-526-9525 (Ken Pierce or Steve Vinay)
London: 44-(0)20-7260-1353 (Alex Duncan or Jeremy Wood)

Convergence of Insurance and Capital Markets



Insurance as a tool to:

- Reduce post-transaction risks for buyer and seller
- Facilitate transactions by transferring risks to insurers
- Cleanse corporate balance sheets of liabilities
- Lower cost of borrowing, satisfy rating agency concerns
- Increase stock price and improve capital market perceptions

Benefits of Insurance in Mergers and Acquisitions



Buyer	Seller
■ Greater certainty in valuation	■ Enhance sale price
■ Expand list of potential targets	■ Eliminate/reduce escrows
■ Avoid post-transaction disputes	■ Avoid indemnities
■ Satisfy concerns of lenders	■ Avoid post transaction disputes
■ Potential for strategic use	■ Facilitate sale

Benefits of Insurance in Mergers and Acquisitions

Post Acquisition Liabilities: Consequences

- Environmental
- Asbestos
- Product Claims
- Other litigation
- Tax liabilities
- Successor liability

→

- Asset worth less than expected
- Internal and external costs
- Impact on financial condition
- Impact on stock price
- Concern by rating agencies
- Potential for litigation

Environmental Risks

Known Contamination

- Risk of greater than expected costs
- Risk of stricter regulatory standards
- Risk of bodily injury and property damage claims
- Administrative and oversight costs
- Investment and interest rate risks



Environmental Risks

Unknown or Undiscovered Contamination

- Risk of future cleanup costs
- Risk of future litigation costs
- Risk of future bodily injury claims
- Risk of future property damage claims



Environmental Insurance

Cleanup Costs – Known and Unknown Contamination

- Risk of greater than expected costs
- Risk of stricter regulatory standards
- Risk of future cleanup costs
- Administrative and oversight costs

Third Party Claims

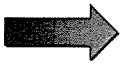
- Bodily injury
- Property damage
- Attorneys fees and costs



Benefits of Insurance in Mergers and Acquisitions

- Seller estimates environmental liability at $10 million
- Buyer estimates environmental liability at $25 million
- Buyer wants Seller to put $25 million in escrow
- Seller refuses to put more than $10 million in escrow

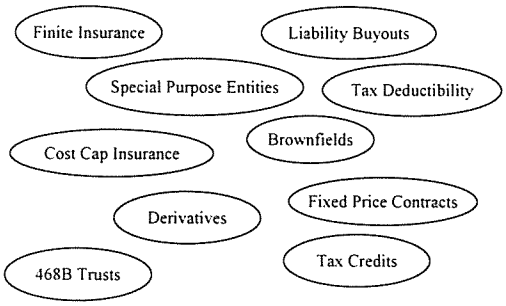
Solution



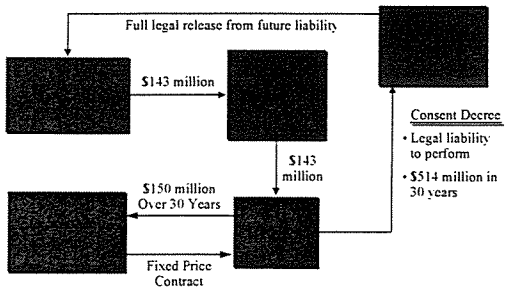


- Limits = $15 million
- Premium = $750,000

Environmental Liabilities: New Tools to Transfer Risk



Case Study



Case Study

[illegible] million Funds $150 million Environmental contract ($5 million / year for 30 years)

[illegible] million Risk transfer premium to Insurer

[illegible] million Funds $514 million payment in 30 years

$143 million: (Tax deductible)

Lehman Brothers Insurance Products Group

Institutional Resources

- Lehman Risk Advisors: Advisory, structuring and brokerage
- Lehman Re Ltd.: $500 million in capital
- Lehman Brothers: Investment Banking, research, trading

Staffing

- 36 dedicated professionals
- Ph.D.'s and actuaries
- Attorneys, underwriters, brokers
- Capital market professionals

Lehman Brothers
Insurance Products Group

New York: 1-212-526-9525
Ken Pierce or Steve Virany

London: 44-(0)20-7260-1353
Alex Duncan or Jeremy Wood

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Environmental Consultants



ENVIRONMENTAL AUDIT PROGRAM
REPORTING TO SENIOR MANAGEMENT

OR

Five Things Management Was Afraid You Would Tell Them

Presented By
Curtis J. Johnson*

At
The Thirteenth Annual Texas Environmental Superconference

August 3, 2001

Austin, Texas

Member Companies

Huffman & Associates, Inc.
700 Larkspur Landing Circle, Suite 100
Larkspur, California 94939
USA
415.925.2000
415.925.2005
Contact:
Dr. Terry Huffman, President
thuffman@h-bgroup.com

Turnstone Environmental, Inc.
11327 Reid Place
Grass Valley, California 95945
USA
530.477.5698
530.477.5793
Contact:
Jim Broadway, President
jbroadway@h-bgroup.com

ENVIRONMENTAL AUDIT PROGRAM REPORTING TO SENIOR MANAGEMENT

Ask senior management what they want to hear about your environmental auditing program and they will probably say something like "No problems." Hopefully what they mean is that they would like to hear that the auditing program has been running well, and that it shows that there are no problems at your facilities. They are likely to add (in a lighthearted manner of course) that they would also like to hear that you have found a way to expand your auditing program while cutting both staff and costs. This paper is meant to provide a short discussion of the things that senior management ought to hear and know about your auditing program.

If, when you ask senior management what they want to hear about your auditing program and their answer is "Nothing!" meaning that they do not want to hear about any problems that are uncovered through your auditing program, you probably have a bigger problem. If you find that you cannot change that mindset, I would suggest that you may want to find alternative employment. A management team that does not understand the value of an environmental auditing program is a liability. A manager that says he does not want to hear about problems is more than a liability, and while he may think that he is insulating himself from personal liability, he may in fact be in danger of bringing liability upon himself under the theory of conscious avoidance. While a discussion about the theories of culpability and liability is beyond the scope of this paper, in short, conscious avoidance is when a manager structures an organization or establishes expectations so as not to find out if something is going wrong.

Realistically, about the best news senior management can regularly hear about an environmental auditing program is that the program is running smoothly and that all the issues that have been identified through the program are being addressed and on schedule. There is a lot more being said about the auditing program in that statement though, and you should not assume that your company management understands them.

Curtis J Johnson cjohnson@h-bgroup 281 341 8289

There are five aspects about environmental auditing and your auditing program that it is important for senior management to understand. Developing an understanding of these concepts takes time and while they are often the basis for establishing an audit program in the first place, the concepts ought to be reviewed and supported on a regular basis, particularly at budget and review time.

The first thing about auditing that you want your management to understand and hopefully agree with is that auditing is good for the organization. Dwight Eisenhower summed up his military understanding of the importance of auditing with "The uninspected inevitably deteriorates." Auditing can find the things that have been overlooked, ignored or deteriorated. Finding them yourself allows greater flexibility to design and implement corrective and preventive action. Oftentimes, some of an organization's options for managing issues are removed from the table, when the faults of the organization are uncovered by the public, the press or the government.

The next aspect concerning environmental auditing programs is probably not known by most company managers. Many auditors are themselves unaware that there are professional standards for the design and implementation of environmental, health and safety auditing programs, and that there is a widely accepted certification program for auditors. The Auditing Roundtable[†] has developed Standards for the Performance of Environmental, Health and Safety Audits, as well as the Standard for the Design and Implementation of Environmental, Health and Safety Auditing Programs. The Auditing Roundtable and the Institute for Internal Auditing established the Board of Environmental, Safety and Health Auditor Certifications to administer a program to certify qualified auditors. Auditors and company management should be aware that standards and certifications are available and may wish to design their program to incorporate them.

Curtis J Johnson cjohnson@h-bgroup 281 341 8289

Something management probably understands about auditing programs is that even though they are not mandated by regulation, the public expects it. While the public may not have a high level of trust for the decisions made by your organization, they do expect you to find and understand your own problems. There is room for debate when two parties disagree about how to manage a situation. You are not likely to be given the opportunity to participate in the discussion if you are starting from the position that you didn't bother to find out if something was wrong.

In addition to the fact that the public expects an organization to be auditing, management should understand that the public and the government hate audits to be conducted under a privilege. More often than not, when an audit is conducted under a privilege, such as the attorney-client privilege, the public and government agencies will interpret this to mean that the company knows that it has something to hide. While the rationale for choosing whether to conduct an audit under a privilege is outside the scope of this paper, it is suggested that you make sure that management understands the degree of distrust raised by conducting audits under a privilege.

The last item relating to auditing programs that management should understand is probably the most difficult for company managers to accept and believe. Management should know that there are realistic incentives for disclosing the results of audits to persons outside the organization. Of course, there are the direct benefits of disclosing audit results such as the program administered by the Texas Natural Resources Conservation Commission (which is the subject of another presentation at this conference). Additionally though, consider the benefits of being able to tell the community around your facility that you operate an environmental auditing program that is as good or better than any, and that all the issues that have been uncovered from your program have been corrected. As is discussed below, you will probably further be able to tell your community that you have seen improvements at your facility over time.

Curtis J Johnson cjohnson@h-bgroup 281 341 8289

Now that your management is educated about auditing programs, they can better participate in decisions regarding the design of your audit program, and you will have a better chance of having consensus on the results of those decisions. One of the elements of The Auditing Roundtable's Standard for the Design and Implementation of an Auditing Program is to gain management's concurrence with the design, scope and coverage of the program. In short, if management cannot concur, then changes to management's expectations for the program's resources, design, coverage or scope are needed.

The aspects of the auditing program that should be decided in consultation with your management then are:

- Whether to conduct the auditing program in conformance with a particular standard.
- What the internal reporting mechanism should be.
- Who is responsible for the design and tracking of corrective and prevention action?
- Whether audits should be conducted under a privilege.
- Whether the audits should be conducted with the expectation to disclose results outside the company.

In addition to having management participate in the design of your auditing program (or at least assuring management's understanding of these factors affecting the design of an auditing program), certain information and data ought to be regularly reported to them. The following discussion and data are from a large waste and recycling services company[‡]. Individual audit reports were addressed to the facility manager with copies provided to the facility manager's boss, and other environmental, health and safety representatives. The facility manager was then responsible for developing a plan for corrective and preventive action. Both managers were held accountable for action plan

Curtis J Johnson cjohnson@h-bgroup 281 341 8289

performance, since it is the facility manager's boss who directly influences that facility manager's objectives, budget, and compensation.

On a quarterly basis, facility managers were responsible for reporting information on completion of their action plan items to the audit group. The audit department manager rolled up the data by geographic area and business system, and produced a report for senior management. The data reported were for numbers of findings, numbers and percentage of actions completed, and the number and percentage of action items completed by their target date. Specific information about an audit finding and the corrective and preventive action was not distributed unless it related to a high consequence item that was behind schedule or more than six months had passed since its identification and it had yet to be resolved. Additionally, it was only reported to persons who were directly in the management chain for that facility.

These audit data were reported at many levels of the company from the facility manager (who received a copy of his or her data) to the Chief Executive Officer (who received a compilation of data for the overall company, as well as each business system and geographic area). Good or poor performance on action plans in a particular business system or geographic area could be quickly recognized numerically and senior management could focus their discussions accordingly. Annually, summary data for the company were presented to the audit committee of the board of directors.

A lesson from Quality Systems Management is that "What gets measured, improves." In the first year that action plan completion performance data were reported, on-time completion performance doubled from roughly 40% to 80% (of items completed by or in advance of their target date). In subsequent years, on-time completion performance approached 100%, meaning that nearly all audit action items were completed by or in advance of their target date. The impact of these measurements was felt to be so

Curtis J Johnson cjohnson@h-bgroup 281 341 8289

effective that the company incorporated audit action plan performance data into calculations for managers' incentive compensation.

A piece of advice I once received about effective communication with senior management was to always be prepared to convey a message in a 30 second elevator ride. At first, this seemed unreasonable. Conveying any specifics about facility problems seemed out of the question, and if confidentiality is a concern, an elevator is not an acceptable place due to the possible presence of persons outside the need-to-know advisory loop. When you consider though, that chattering about the weather or a basketball game with the CEO may be a wasted opportunity, and that you probably get more chances to say something in passing, such as when riding in an elevator than in formal meetings, it's not so crazy after all. So what can you say about an auditing program in a 30-second elevator ride?

One very effective thing that can be conveyed is good news. Audit programs too often fall prey to constantly reporting problems, and while it may not be fair, the bearer of bad news can end up being synonymous with bad news. So if you can do it without giving a false impression, surprise the CEO with something like "My audit team just got back from the production site in Beaumont and the site was in excellent shape. You ought to pass on to the Operations VP that we think they're doing a great job." There is little doubt that that comment will get passed on, and all of a sudden the VP and the facility manager are your friend.

Not too many sites can merit such high praise though, and a way to quickly convey that something needs addressing without conveying the specifics is "I've scheduled a conference call on Thursday to go over the plans for corrective action at the Dallas distribution center. I'm confident that the District Manager is setting up an acceptable timetable." Not only have you pointed out that Dallas needs to get something done, but you've also conveyed that you are on top of the situation, that it is being managed

Curtis J Johnson cjohnson@h-bgroup 281 341 8289

cooperatively and will get addressed, as well as the fact that you think that the District Manager is capable of handling the issues.

Unfortunately, there will also be times when the District manager has dropped the ball. That conversation may go something like "There is an important issue behind schedule out in Odessa. I could use your help getting them back on track to resolve it. When would be a good time for you and I to call the site manager?" In this case, you better have your facts straight and be prepared for "Now" to be the answer. Of course, another possibility is that a meeting time may need to be worked out. Even so, there is a strong possibility that your concern will be passed along and there won't be a need for a group meeting or conference call.

There are many ways to communicate with management about your auditing program. By educating senior management about the factors effecting program design, and gaining their concurrence on that design, everyone can benefit. With regular reporting of audit and action plan data your company and the public can enjoy improved environmental performance.

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* Curt Johnson is the Vice President of EHS Systems Development with the Huffman-Broadway Group. The Huffman-Broadway Group, Inc. (HBG) specializes in helping clients effectively manage the environmental, health and safety aspects of permitting, building and operating power plants, pipelines, transmission lines and related infrastructure. Mr. Johnson can be reached at 281 341 8289, C/O The Huffman-Broadway Group, 2335 Quarterpath Dr, Richmond, TX 77469, or cjohnson@h-bgroup

† The Auditing Roundtable was founded in 1982 and now has more than 1000 members from around the world. Information concerning the Roundtable's Standards for Performance of Environmental, Health and Safety Audits, and the Standard for the Design and Implementation of Environmental, Health and Safety Auditing Programs can be obtained by contacting the Roundtable at 480-659-3738, or www.auditear.org. Information on the professional certification programs run by the Board of Environmental, Safety and Health Auditor Certifications can be obtained by contacting BEAC at 407 831-7727, or beac@theiia.org.

‡ "Case Study: Browning-Ferris Industries' Computerized System for Managing Audit and Environmental Performance" Curtis J. Johnson; Pages 291-299 in Auditing for Environmental Quality Leadership, John T. Willig Editor, 1995

Curtis J Johnson cjohnson@h-bgroup 281 341 8289



September 1997
RG-173 (Revised)

The Texas Environmental, Health, and Safety Audit Privilege Act

(as Amended by HB 3459, 75th Legislature)

printed on
recycled paper

Litigation Support Division

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

The Texas Environmental, Health, and Safety Audit Privilege Act

(as Amended by HB 3459, 75th Legislature)

Prepared by
Litigation Support Division

RG-173 (Revised)
September 1997



Barry R. McBee, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
John M. Baker, *Commissioner*

Dan Pearson, *Executive Director*

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INTRODUCTION

This guidance document is intended to assist persons in submitting notice of the intent to initiate a voluntary environmental audit and in disclosing violations subsequently discovered, pursuant to the Texas Environmental, Health, and Safety Audit Privilege Act. This guidance is not regulation and should not be used as such.

Purpose

In 1995 the 74th Texas Legislature approved House Bill 2473, the Texas Environmental, Health, and Safety Audit Privilege Act ("Audit Act"), *Tex. Rev. Civ. Stat. Ann.* art. 4447cc (Vernon's). The Audit Act was subsequently amended in 1997 by the 75th Legislature, necessitating revision of TNRCC guidance document RG-173. This revised guidance document will highlight the changes made by the 75th Legislature and provide guidance on implementation of the amended Audit Act for TNRCC staff and companies contemplating its use with regard to audits of facilities under the TNRCC's jurisdiction. Although the Audit Act also affects litigation between non-TNRCC parties as well as the jurisdiction of other state agencies, including the General Land Office, the Railroad Commission, and the Department of Health, this guidance focuses exclusively on the TNRCC's jurisdiction.

Statutory references in this guidance document are to the forthcoming codification of the Audit Act as amended by House Bill 3459, 75th Legislature, effective September 1, 1997.

Background

The Audit Act provides incentives for regulated entities to conduct voluntary audits of their compliance with environmental, health, and safety regulations and to implement prompt corrective action. The two primary incentives are a limited evidentiary privilege (see Section 5, "Privilege," page 19) for certain information gathered in a voluntary self-audit process and an immunity from administrative and civil penalties for certain violations voluntarily disclosed as a result of the audit. Neither the privilege nor the immunity applies if an audit was conducted in bad faith, or if appropriate action to achieve compliance is not taken in a timely manner, among other conditions.

As of August 31, 1997, the TNRCC had received notice from 635 regulated facilities of their intent to conduct a voluntary audit under the 1995 Audit Act; 102 self-disclosures had been made to the commission as a result. Many of these violations would not have been discovered in an ordinary inspection, since the violations could be discovered only through expensive sampling and testing protocols, or time-consuming data reviews.

Nonetheless, the U.S. Environmental Protection Agency (EPA) has cited its opposition to the 1995 Audit Act as partial explanation for its reluctance to grant delegation of federal environmental programs to Texas.[1] However, the EPA conceded before the 75th Legislative Session that an amended Audit Act would not be an obstacle to delegation of these federal programs if several changes were included. The Texas Legislature responded with House Bill 3459, which enacts the changes agreed upon after negotiation between the TNRCC and the EPA.

The amended Audit Act took effect September 1, 1997, and its provisions apply only to audits prepared on or after that date.

Significant Changes Made by HB 3459, 75th Legislature

Implementation of the Audit Act remains essentially unchanged in practice. However, the scope of the privilege and immunity has been modified with the removal of references to criminal proceedings and penalties, and the application of the Audit Act has been more explicitly limited to state law. Many of the changes are purely explanatory in nature, providing explicit statements of the relationship between the Audit Act and other state and federal laws. The definitions of relevant terms remain the same, as does the description of what information may be incorporated in an audit report.

The following points highlight the main changes that have been made to the Audit Act:

- the reference to the applicability of the audit privilege in criminal proceedings has been removed [Audit Act Section (§) 5(b)];
- the reference to immunity from criminal penalties has been removed [Audit Act §10(a)];
- federal agencies have been deleted from the list of persons to whom certain audit disclosures can be made under a confidentiality agreement without waiving the audit privilege [Audit Act §6(b)(2)(D)];
- federal and state protections for individuals who disclose information to law enforcement authorities ("Whistleblower Laws") are explicitly preserved [Audit Act §6(e)];
- the administrative or civil evidentiary privilege is not waived when an audit report is obtained, reviewed, or used in a criminal proceeding [Audit Act §9(a)];
- a state regulatory agency may review certain information included in an audit report without resulting in a waiver of the privilege if that information is required to be available under a specific state or federal law; although in some cases the information could become available to the public by operation of state or federal law, it cannot be

[1]Texas has not been alone as a focus of EPA criticism regarding self-audit privilege and immunity legislation. Texas is one of 24 states that have enacted legislation providing some form of evidentiary privilege and/or penalty immunity.

used in civil or administrative proceedings, and evidence that derives from the use of such information will be suppressed [Audit Act §9];

- immunity has been further limited such that violations that result in imminent and substantial risk of injury in addition to actual injury are ineligible for immunity [Audit Act §10(b)(7)];
- a new provision limits immunity such that violations that result in "substantial economic benefit that gives the violator a clear advantage over its business competitors" are ineligible for immunity [Audit Act §10(d)(5)];
- the penalty for fraudulent assertion of the privilege for unprotected information now provides for a maximum fine of $10,000 as an alternative to sanctions as provided by Rule 215 of the Texas Rules of Civil Procedure [Audit Act §7(d)]; and
- the penalty for the disclosure of confidential information now refers to the Open Records Act, Chapter 552, Government Code [Audit Act §6(d)].

Rulemaking Authority

The Audit Act does not expressly grant any additional rulemaking authority to a state officer, department, agency, or institution. No rulemaking is necessary or anticipated to implement the Audit Act.

GUIDANCE

Notices Required under the Audit Act

Three types of notices are anticipated under the Audit Act: a Notice of Audit, a Disclosure of Violation, and a Repuest for Extension. In order to take advantage of the immunity offered by the Audit Act, an entity must give notice to the TNRCC of the initiation of an environmental audit and must disclose to the agency any violations for which immunity is claimed. However, if an auditing entity does not intend to take advantage of potential immunity, no notice of intent to initiate an audit is necessary; in such cases the audit report will still be privileged, but no immunity can attach to any violations discovered. An entity must request the written approval of the TNRCC if it seeks to extend the audit more than six months beyond the date it was begun.

> ***Guidance***—The Notice of Audit (NOA) and Disclosure of Violation (DOV) letters are *not* privileged documents and *are* available to the public.

Notice of Audit (NOA)

A *Notice of Audit* is the notice an entity provides to the TNRCC before the entity begins an environmental audit. Although the entity is not required to give this notice to the TNRCC, it cannot take advantage of the immunity provision of the Audit Act if it fails to give proper notice to the TNRCC that it is **planning to commence** an environmental audit [Audit Act §10(g)].

An NOA should be submitted **in writing by certified mail.** Certified mail is not required, but using certified mail is in an entity's best interest, in part because it provides a positive identification of the time the NOA was mailed.

An NOA should include the following information to fulfill the intended notice requirement of the Audit Act and to facilitate TNRCC implementation:

- name of the entity to be audited;
- location of the entity to be audited (city, town, county, TNRCC region, and address, if appropriate);
- description of the entity or portion of the entity to be audited, including applicable TNRCC permit and registration numbers;
- specific time of initiation of audit (time, day, month, and year); and
- general scope of audit, with sufficient detail to enable a determination of whether subsequently discovered violations are included.

(See Appendix C, "Model Notice of Audit Letter.")

Disclosure of Violation (DOV)

A *Disclosure of Violation* is the notice or disclosure made by a person to the TNRCC promptly upon discovery of a violation as a result of an environmental audit. A person wishing to take advantage of the immunity from penalty must make a proper voluntary disclosure of the violation.

An adequate disclosure letter must be sent **in writing by certified mail** [Audit Act §10(b)(2)].

A DOV should include the following information to fulfill the intended notice requirement of the Audit Act and to facilitate TNRCC implementation:

- name of the entity audited;
- reference to the date of the relevant NOA;
- certified mail reference number;
- time of initiation and completion (if applicable) of the audit;
- affirmative assertion that a violation has been discovered;
- description of the violation discovered, including references to relevant statutory, regulatory, and permit provisions where appropriate;
- date of discovery of the violation;
- duration of the violation; and
- the status and schedule of proposed corrective measures.

(See Appendix D, "Model Disclosure of Violation Letter.")

Request for Extension

The entity may submit a letter requesting an extension of the time period allowed for the completion of an environmental audit. The Audit Act explicitly limits the audit period to "a reasonable time not to exceed six months" unless an extension is approved "based on reasonable grounds" [Audit Act §4(e)].

The evidentiary privilege and the immunity from penalties pertain only to information compiled and violations discovered and voluntarily disclosed during an authorized audit period. Facilities are cautioned that the continuation of an audit after the initial six-month period without prior written approval from the TNRCC may limit the availability of privilege and immunity.

A request for extension must be timely and must provide sufficient information for the TNRCC to determine whether reasonable grounds exist to grant an extension. Failure to provide sufficient information could result in delay which could jeopardize the privilege and immunity.

Mailing Address—All correspondence regarding the Audit Act should be sent to:

Deputy Director, MC-172
Office of Compliance and Enforcement
PO Box 13087
Austin TX 78711-3087

The Deputy Director's Office will route these notices to all program areas, the Field Operations Division, and Central Records.

Privilege and the Audit Act

Evidentiary Privilege

Section 5 of the Audit Act grants a limited evidentiary privilege for audit reports developed according to the statute. The audit privilege applies to the admissibility and discovery of audit reports in civil and administrative proceedings. The privilege does not apply to documents, reports, and data that are required to be collected, developed, maintained, or reported under state or federal law or to information obtained independent of the audit process [Audit Act §8(a)]. The privilege also does not apply to criminal proceedings.

The effects of the audit privilege extend beyond admissibility and discovery in legal proceedings. The TNRCC will not routinely receive or review privileged audit report information, and such information should not be requested, reviewed, or otherwise used during an inspection. If the review of privileged information is necessary to determine compliance status, that information and information derived from its use will remain privileged and inadmissible in administrative or civil proceedings. Such review will occur under the terms of a confidentiality agreement between the TNRCC and the auditing entity, where appropriate.

Guidance—All privileged information contained in an audit report should be clearly labeled: "COMPLIANCE REPORT: PRIVILEGED DOCUMENT."

Waiver of Privilege

The Audit Act privilege is waivable and will be lost if privileged information is communicated to others except in limited situations described in the legislation. This section discusses the potential consequences of disclosure in some foreseeable circumstances.

Disclosure to Government Officials

- *NO WAIVER for disclosure to TNRCC staff pursuant to a confidentiality agreement or under a claim of confidentiality*

Disclosure of an audit report to applicable TNRCC staff ("government official of a state") does *not* waive the privilege if disclosure is made under the terms of a confidentiality agreement between the owner/operator of the audited entity or the person for whom the report was prepared and the TNRCC; or if the audit is submitted to the TNRCC under a claim of confidentiality [Audit Act §§6(b)(2)(D) and 6(b)(3)].

A party that violates the terms of a confidentiality agreement will be liable for damages caused as a result of the disclosure. Information provided under a claim of confidentiality is not subject to disclosure under the Texas Open Records Act, and any agency employee who discloses such confidential information is subject to potential criminal prosecution which can result in a fine of up to $1,000 and a term of up to six months in jail.

> ***Guidance***—TNRCC staff shall not receive any information offered under a claim of confidentiality. If such a document or documents are submitted to the TNRCC, the employee who receives the documents should return them immediately, without review. Also, no employee should request, review, accept, or use an audit report during an inspection without first consulting the Litigation Support Division.

- *NO WAIVER for disclosure to a state regulatory agency of information required to be made available under state or federal law*

The disclosure for agency review of information required "to be made available" [Audit Act §9(b)] as opposed to information required "to be collected, developed, maintained, or reported" under a federal or state environmental or health and safety law [Audit Act §8(a)(1)] does *not* result in waiver of any applicable privilege.

If the TNRCC requests the review of such material, it accepts the responsibility to maintain confidentiality. The use of any such information obtained is strictly limited. Evidence that arises or is derived from review, disclosure, or use of such information can be suppressed in a civil or administrative proceeding [Audit Act §9(d)]. If such a request for review could result in public disclosure as the result of specific state or federal laws requiring public access to information in the TNRCC's possession, TNRCC staff must affirmatively notify the person claiming the privilege before the agency obtains the material for review [Audit Act §9(c)].

- *WAIVER for disclosure of privileged information to the EPA (federal agencies)*

  Information privileged under the Audit Act cannot be disclosed to the EPA or other federal agencies without resulting in waiver of the privilege. Federal agencies are *not* included among entities to which privileged information can be disclosed under Audit Act §6(b).

  Likewise, disclosure to the EPA or other federal agencies of information "required to be made available" under state or federal law will result in waiver of any applicable Audit Act privilege even though the disclosure of such information exclusively for TNRCC review would not waive the privilege under Audit Act §9(b).

Disclosure to Private Parties

- *NO WAIVER for disclosure to certain nongovernmental parties for the purpose of addressing an issue identified through an audit*

  The Audit Act authorizes the disclosure of privileged information to the following nongovernmental parties for the purpose of addressing or correcting a matter raised by the audit: (1) employees of the owner or operator of the entity, including contract employees; (2) a legal representative of the owner or operator; (3) an officer or director of the entity or a partner of the owner or operator; or (4) an independent contractor retained by the owner or operator [Audit Act §6(b)(1)].

- *NO WAIVER for disclosure to certain nongovernmental parties pursuant to the terms of a confidentiality agreement*

  If the disclosure is made under the terms of a confidentiality agreement, the Audit Act authorizes disclosure of privileged information to the following nongovernmental parties: (1) a partner or potential partner of the owner or operator; (2) a transferee or potential transferee of the entity or operation; (3) a lender or potential lender for the entity or operation; and (4) a person or entity engaged in the business of insuring, underwriting, or indemnifying the entity or operation [Audit Act §6(b)(2)].

Criminal Proceedings

- *NO WAIVER relative to civil or administrative proceedings where an audit report is obtained, reviewed, or used in a criminal proceeding [Audit Act §9(a)]*

Immunity and the Audit Act

The Audit Act Section 10 immunity is an immunity from administrative and civil penalties relating to certain self-disclosed violations. This limited immunity does not affect the TNRCC's authority to seek injunctive

relief, provide technical recommendations, or otherwise enforce compliance. In order to receive immunity, the disclosure must be both voluntary *and* preceded by a proper Notice of Audit that notified the TNRCC of the intent to initiate the environmental audit (see "Notice of Audit" on page 4).

A disclosure will be deemed voluntary under Audit Act §10 only if the following conditions apply ("PINNACLE" can serve as a mnemonic device):

P—the disclosure was made *promptly* after the violation was discovered;

I—the disclosure was made *in writing by certified mail* to the TNRCC;

N—the violation was *not independently detected,* or an investigation of the violation was not initiated, before the disclosure was made in writing by certified mail;

N—the violation was *noted and disclosed as the result* of a voluntary environmental audit;

A—*appropriate efforts to correct* the noncompliance are initiated, pursued, and completed within a reasonable amount of time;

C—the disclosing entity *cooperates in the investigation* of the issues identified in the disclosure;

L—the violation *lacks injury or imminent and substantial risk of injury;* and

E—the disclosure is not required by an *enforcement order or decree.*

Audit Act §10(d) further limits the availability of the immunity for certain violations. Immunity does not apply, and a civil or administrative penalty may be imposed if the violation was intentionally or knowingly committed; was recklessly committed; or resulted in a *"substantial economic benefit which gives the violator a clear advantage over its business competitors."* Furthermore, the immunity does not apply if a court or administrative law judge finds that the entity claiming immunity has repeatedly or continuously committed significant violations and has not attempted to bring the entity into compliance, resulting in a pattern of disregard of environmental or health and safety laws. A three-year period will be used to determine whether a pattern exists [Audit Act §10(h)].

Guidance—TNRCC enforcement programs should take appropriate steps in coordination with the Environmental Audit Task Force when a violation is disclosed as a result of an environmental audit. *The TNRCC's enforcement authority remains unaltered by the Audit Act, except for the exclusion of penalties.*

Questions and Answers

General

1. *Will Disclosures of Violation be accepted by any delivery means other than certified mail (for example, telephone, fax, personal communication)?*

   No. According to the Audit Act, Disclosure of Violation letters *must* be sent by certified mail. They should be addressed to the deputy director of the Office of Compliance and Enforcement.

2. *What is considered a "prompt" disclosure?*

   Whether a disclosure is prompt depends upon the circumstances surrounding the audit and the particular violation, and the determination will be made on a case-by-case basis. It is in an entity's best interests to disclose violations as soon as they are discovered.

3. *How certain must an entity be that a violation has occurred before it should provide notice in order to receive immunity?*

   An entity must notify the TNRCC of the violation promptly once it has a reasonable factual basis that a violation has occurred. An entity runs the risk of forfeiting potential immunity either for lack of prompt disclosure or if the violation is independently detected before a sufficient disclosure is submitted. It is important to note that a vague disclosure is inadequate and does not qualify as a voluntary "disclosure of violation." Specific violations should be disclosed with reference to specific operating units and/or equipment affected by relevant regulations or other applicable law.

4. *Can an entity be in "continuous audit" such that it can receive immunity from all violations discovered and disclosed?*

   That is unlikely. The Audit Act limits the audit period to six months. It is doubtful that an entity could justify such consecutive audits without raising the suspicion that it is conducting its audits in bad faith. However, it is clear that an entity may conduct several audits of *different* facilities during the year and take advantage of the Audit Act's incentives.

5. *Will all voluntarily disclosed violations be required to be listed on a regulated entity's compliance history?*

   All voluntarily disclosed violations must be identified in an entity's compliance history report as being voluntarily disclosed [Audit Act §10(i)]. The TNRCC views a voluntary disclosure as a positive action that leads to the correction of violations that might otherwise not be detected through traditional enforcement approaches.

6. *How will the TNRCC determine whether a voluntarily disclosed violation has resulted in a substantial economic benefit to the entity, such that immunity is unavailable?*

   A claim of immunity (that is, the proper filing of a Disclosure of Violation letter) initiates the TNRCC enforcement process, including a case-by-case determination of economic benefit. Immunity does not attach until the conditions for a "voluntary" disclosure are fulfilled, including correction of the noncompliance within a reasonable time and cooperation with the TNRCC in the investigation of the issues identified.

Confidentiality under the Audit Act

1. *Will the TNRCC receive and review audit reports?*

   The TNRCC will *not* routinely receive or review *privileged* audit reports. Notice of Audit (NOA) and Disclosure of Violation (DOV) letters will be reviewed for sufficiency by the Office of Compliance and Enforcement and the Litigation Support Division. If the review of privileged audit report information is necessary to determine compliance status, that information and information derived from its use will remain privileged and inadmissible in administrative or civil proceedings. The review will occur under the terms of a confidentiality agreement between the TNRCC and the auditing entity, where appropriate.

2. *How will the confidentiality of audit report information be maintained inside the TNRCC?*

   The TNRCC emphasizes that privileged audit report information should not be submitted to the agency or received by staff. Any TNRCC employee who receives such information should forward it to the attorneys in the Litigation Support Division for proper handling.

3. *How will the TNRCC address a claim of confidentiality accompanying a Disclosure of Violation or Notice of Audit letter?*

   A Disclosure of Violation or Notice of Audit letter will not be considered privileged or confidential under the Audit Act. Such letters that are labeled confidential will nonetheless be treated as public documents.

The Texas Audit Act and the EPA

1. *How does the Audit Act apply to EPA inspectors operating in Texas?*

   The Audit Act does not apply to federal agencies, including the EPA. The EPA has its own audit policy,[2] and EPA inspectors operate within that policy.

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[2] "Incentives for Self-Policing: Discovery, Disclosure, Correction, and Prevention of Violations—Final Policy Statement," 60 *Fed. Reg.* 66706 (Dec. 22, 1995).

2. *If an EPA inspector requests a copy of an audit during a joint inspection, should the TNRCC inspector continue to participate?*

   The EPA has explicitly stated that it "will not request an environmental audit report in routine inspections."[3] However, if an EPA inspector does request a copy of an audit report or information privileged under the Texas Audit Act, the TNRCC inspector should continue to participate, but should not receive, review, or otherwise use such information. The inspector should refer the issue to the Litigation Support Division as soon as possible.

What Does the Audit Act Cover?

1. *Does the definition of "audit report" include such routine reports as stack tests, CEM data reviews, and so forth? In other words, could an entity review the information in such reports, disclose all violations before submitting the reports to the agency, and gain immunity in this way?*

   Stack tests, data reviews, and so forth may be privileged under the Audit Act, but only if they are included in the scope of the environmental audit and are not required to be collected, maintained, or reported under laws, regulations, permit conditions, or enforcement orders (that is, only if they are "voluntary"). Violations discovered as the result of a voluntary audit may also be immune from penalties if voluntarily disclosed.

2. *If an entity chooses to conduct an environmental audit in order to collect information necessary for an operating permit application and to complete the application compliance certification (or in preparing to submit the annual compliance certification) is this audit considered voluntary under the Audit Act?*

   Reports, data, communications, and other records that are required to be reported under state or federal law must be reported notwithstanding the environmental audit and are therefore *not* privileged. An audit report will only be eligible for the Audit Act privilege if a voluntary audit is conducted according to the terms of the legislation. If an audit is conducted pursuant to a federal or state mandate, none of the information collected within the mandated scope of audit will qualify for the Audit Act privilege. With regard to the Clean Air Act Title V operating permit program, a case-by-case determination will be necessary to determine whether an environmental audit exceeded the "reasonable inquiry" required by EPA regulations [40 CFR Part 70.5(d)] such that privileged information could have been generated in accordance with the Texas Audit Act.

3. *Will an entity be able to place all documents, correspondence, and records that are not specifically required by regulation under the protection of the audit privilege, limiting the field inspector to looking only at records that are mandated by rule?*

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[3]Ibid., p. 66711.

No. Only the documents, communications, and other data produced from an environmental audit are privileged. The audit contemplated under this legislation is a systematic event with a start date and a completion date.

4. *If a nuisance violation results from an upset condition, can the responsible party disclose the violation as part of an environmental audit and thereby gain immunity from the associated penalty?*

   No. Immunity is available only for voluntarily disclosed violations whose disclosure arises out of a voluntary environmental audit. The discovery and subsequent disclosure of a nuisance violation might coincidentally occur during an audit period, but the discovery and disclosure cannot be attributed solely to the audit process.

Audits and Enforcement

1. *Will the TNRCC continue to audit facilities that have submitted NOAs?*

   Yes; however, the TNRCC will not target an entity for inspection based upon the submittal of a NOA. Enforcement authority is unaffected by the submittal of an NOA, and the TNRCC will continue to inspect independently at its discretion.

2. *Is any violation reported by an entity during the audit period automatically immune from enforcement?*

   No. Only violations that are discovered in a voluntary environmental audit and are voluntarily disclosed can be immune from penalties. Companies receive no immunity for violations unrelated to the scope of the audit and violations which are identified through information otherwise required to be collected. Furthermore, the Audit Act does not provide immunity from enforcement—it provides immunity only from certain penalties.

3. *Does the Audit Act provide participating companies the authority to set their own compliance plans and schedules without approval from the agency, or will the TNRCC still enter "no penalty" orders with technical requirements and compliance schedules based on the violations disclosed?*

   Audit Act immunity applies only to the penalty; the TNRCC will still bring enforcement actions and enter "no penalty" orders with technical recommendations where appropriate.

4. *Will the TNRCC regional office be aware that an audit is ongoing or has been conducted at an entity under review?*

   In most cases, the regional office staff will be aware. Notices of Audit will be forwarded to the regions by the Office of Compliance and Enforcement. However, the TNRCC is not necessarily notified of all

environmental audits to be conducted; only when an entity intends to qualify for the immunity provisions of the Audit Act is it required to provide notice of intent to commence an audit. Even where no Notice of Audit has been filed, audit reports remain privileged information.

5. *How will an inspector know whether an entity has received immunity from penalties related to certain violations?*

   Correspondence regarding disclosures of violations will be cc'd to the regional offices by the Office of Compliance and Enforcement.

Privileged Information and Inspections

1. *If there is a dispute during an inspection regarding which information is privileged and which should be available to the inspector, where and when will this be resolved?*

   If a dispute arises during an inspection, an entity should not make audit reports available to the inspector, and the inspector should not insist upon access to the information. The inspector should note, as specifically as possible, the types of documents that have been withheld and promptly refer the issue to the Litigation Support Division for resolution.

2. *If, in the course of an inspection, the inspector identifies an apparent violation and the entity representative says "Yes, we found that during our audit," how should the inspector proceed?*

   The inspection should proceed as normal. The potential immunity would only affect the penalty, not the investigation. Whether immunity is applicable will be determined later, based on the sufficiency of the NOA and DOV and the voluntariness of the disclosure. Regardless of the outcome of the immunity determination, the entity should cooperate with the inspector's investigation of the issues identified in the disclosure and/or by the inspector.

3. *Is it the responsibility of TNRCC inspectors to instruct companies to refrain from discussing information that is related to an environmental audit during inspections?*

   Although it may not be the TNRCC inspectors' responsibility, they should inform companies not to provide or discuss privileged audit report information during inspections.

4. *How should an inspector document a verbal disclosure of audit information during the inspection?*

   An inspector should be careful to avoid receiving privileged audit information. If such information is nonetheless communicated, the inspector should document the information and the circumstances under which it was received, including whether a claim of confidentiality accompanied the disclosure; label the

notes "Privileged and Confidential Information"; and promptly refer the matter directly to the Litigation Support Division.

5. *When an inspector independently discovers a violation, how will the TNRCC resolve disputes regarding the timing of the Disclosure of Violation relative to the inspector's discovery?*

   Disclosures of Violation must be sent by certified mail. The mailing date of a sufficient DOV will be used to determine the timing issue.

APPENDIX A

Environmental, Health, and Safety Audit Privilege Act

as Amended by HB 3459, 75th Legislature

(to be codified as follows)

Article 4447cc. Environmental, Health, and Safety Audit Privilege Act.

§1. Short Title.

This Act may be cited as the Texas Environmental, Health, and Safety Audit Privilege Act.

§2. Purpose.

The purpose of this Act is to encourage voluntary compliance with environmental and occupational health and safety laws.

§3. Definitions.

(a) In this Act:

(1) "Audit report" means an audit report described by Section 4 of this Act.

(2) "Environmental or health and safety law" means:

(A) a federal or state environmental or occupational health and safety law; or

(B) a rule, regulation, or regional or local law adopted in conjunction with a law described by Paragraph (A) of this subdivision.

(3) "Environmental or health and safety audit" means a systematic voluntary evaluation, review, or assessment of compliance with environmental or health and safety laws or any permit issued under those laws conducted by an owner or operator, an employee of the owner or operator, or an independent contractor of:

(A) a regulated facility or operation; or

(B) an activity at a regulated facility or operation.

(4) "Owner or operator" means a person who owns or operates a regulated facility or operation.

(5) "Penalty" means an administrative, civil, or criminal sanction imposed by the state to punish a person for a violation of a statute or rule. The term does not include a technical or remedial provision ordered by a regulatory authority.

(6) "Person" means an individual, corporation, business trust, partnership, association, and any other legal entity.

(7) "Regulated facility or operation" means a facility or operation that is regulated under an environmental or health and safety law.

(b) A person acts intentionally for purposes of this Act if the person acts intentionally within the meaning of Section 6.03, Penal Code.

(c) For purposes of this Act, a person acts knowingly, or with knowledge, with respect to the nature of the person's conduct when the person is aware of the person's physical acts. A person acts knowingly, or with knowledge, with respect to the result of the person's conduct when the person is aware that the conduct will cause the result.

(d) A person acts recklessly or is reckless for purposes of this Act if the person acts recklessly or is reckless within the meaning of Section 6.03, Penal Code.

(e) To fully implement the privilege established by this Act, the term "environmental or health and safety law" shall be construed broadly.

§4. Audit Report.

(a) An audit report is a report that includes each document and communication, other than those set forth in Section 8 of this Act, produced from an environmental or health and safety audit.

(b) General components that may be contained in a completed audit report include:

(1) a report prepared by an auditor, monitor, or similar person, which may include:

(A) a description of the scope of the audit;

(B) the information gained in the audit and findings, conclusions, and recommendations; and

(C) exhibits and appendices;

(2) memoranda and documents analyzing all or a portion of the materials described by Subdivision (1) of this subsection or discussing implementation issues; and

(3) an implementation plan or tracking system to correct past noncompliance, improve current compliance, or prevent future noncompliance.

(c) The types of exhibits and appendices that may be contained in an audit report include supporting information that is collected or developed for the primary purpose of and in the course of an environmental or health and safety audit, including:

(1) interviews with current or former employees;

(2) field notes and records of observations;

(3) findings, opinions, suggestions, conclusions, guidance, notes, drafts, and memoranda;

(4) legal analyses;

(5) drawings;

(6) photographs;

(7) laboratory analyses and other analytical data;

(8) computer-generated or electronically recorded information;

(9) maps, charts, graphs, and surveys; and

(10) other communications associated with an environmental or health and safety audit.

(d) To facilitate identification, each document in an audit report should be labeled "COMPLIANCE REPORT: PRIVILEGED DOCUMENT," or labeled with words of similar import. Failure to label a document under this section does not constitute a waiver of the audit privilege or create a presumption that the privilege does or does not apply.

(e) Once initiated, an audit shall be completed within a reasonable time not to exceed six months unless an extension is approved by the governmental entity with regulatory authority over the regulated facility or operation based on reasonable grounds.

§5. Privilege.

(a) An audit report is privileged as provided in this section.

(b) Except as provided in Sections 6, 7, and 8 of this Act, any part of an audit report is privileged and is not admissible as evidence or subject to discovery in:

(1) a civil action, whether legal or equitable; or

(2) an administrative proceeding.

(c) A person, when called or subpoenaed as a witness, cannot be compelled to testify or produce a document related to an environmental or health and safety audit if:

(1) the testimony or document discloses any item listed in Section 4 of this Act that was made as part of the preparation of an environmental or health and safety audit report and that is addressed in a privileged part of an audit report; and

(2) for purposes of this subsection only, the person is:

(A) a person who conducted any portion of the audit but did not personally observe the physical events;

(B) a person to whom the audit results are disclosed under Section 6(b) of this Act; or

(C) a custodian of the audit results.

(d) A person who conducts or participates in the preparation of an environmental or health and safety audit and who has actually observed physical events of violation, may testify about those events but may not be compelled to testify about or produce documents related to the preparation of or any privileged part of an environmental or health and safety audit or any item listed in Section 4 of this Act.

(e) An employee of a state agency may not request, review, or otherwise use an audit report during an agency inspection of a regulated facility or operation, or an activity of a regulated facility or operation.

(f) A party asserting the privilege described in this section has the burden of establishing the applicability of the privilege.

§6. Exception: Waiver.

(a) The privilege described by Section 5 of this Act does not apply to the extent the privilege is expressly

waived by the owner or operator who prepared the audit report or caused the report to be prepared.

(b) Disclosure of an audit report or any information generated by an environmental or health and safety audit does not waive the privilege established by Section 5 of this Act if the disclosure:

(1) is made to address or correct a matter raised by the environmental or health and safety audit and is made only to:

(A) a person employed by the owner or operator, including temporary and contract employees;

(B) a legal representative of the owner or operator;

(C) an officer or director of the regulated facility or operation or a partner of the owner or operator; or

(D) an independent contractor retained by the owner or operator;

(2) is made under the terms of a confidentiality agreement between the person for whom the audit report was prepared or the owner or operator of the audited facility or operation and:

(A) a partner or potential partner of the owner or operator of the facility or operation;

(B) a transferee or potential transferee of the facility or operation;

(C) a lender or potential lender for the facility or operation;

(D) a governmental official of a state; or

(E) a person or entity engaged in the business of insuring, underwriting, or indemnifying the facility or operation; or

(3) is made under a claim of confidentiality to a governmental official or agency by the person for whom the audit report was prepared or by the owner or operator.

(c) A party to a confidentiality agreement described in Subsection (b)(2) of this section who violates that agreement is liable for damages caused by the disclosure and for any other penalties stipulated in the confidentiality agreement.

(d) Information that is disclosed under Subsection (b)(3) of this section is confidential and is not subject to disclosure under Chapter 552, Government Code. A public entity, public employee, or public official who discloses information in violation of this subsection is subject to any penalty provided in Chapter 552,

Government Code. It is an affirmative defense to the clerical dissemination of a privileged audit report that the report was not clearly labeled "COMPLIANCE REPORT: PRIVILEGED DOCUMENT" or words of similar import. The lack of labeling may not be raised as a defense if the entity, employee, or official knew or had reason to know that the document was a privileged audit report.

(e) Nothing in this section shall be construed to circumvent the protections provided by federal or state law for individuals that disclose information to law enforcement authorities.

§7. Exception: Disclosure Required by Court or Administrative Hearings Official.

(a) A court or administrative hearings official with competent jurisdiction may require disclosure of a portion of an audit report in a civil or administrative proceeding if the court or administrative hearings official determines, after an in camera review consistent with the appropriate rules of procedure, that:

(1) the privilege is asserted for a fraudulent purpose;

(2) the portion of the audit report is not subject to the privilege under Section 8 of this Act; or

(3) the portion of the audit report shows evidence of noncompliance with an environmental or health and safety law and appropriate efforts to achieve compliance with the law were not promptly initiated and pursued with reasonable diligence after discovery of noncompliance.

(b) A party seeking disclosure under this section has the burden of proving that Subsection (a)(1), (2), or (3) of this section applies.

(c) Notwithstanding Chapter 2001, Government Code, a decision of an administrative hearings official under Subsection (a)(1), (2), or (3) of this section is directly appealable to a court of competent jurisdiction without disclosure of the audit report to any person unless so ordered by the court.

(d) A person claiming the privilege is subject to sanctions as provided by Rule 215 of the Texas Rules of Civil Procedure or to a fine not to exceed $10,000 if the court finds, consistent with fundamental due process, that the person intentionally or knowingly claimed the privilege for unprotected information as provided in Section 8 of this Act.

(e) A determination of a court under this section is subject to interlocutory appeal to an appropriate appellate court.

§8. Nonprivileged Materials.

(a) The privilege described in this Act does not apply to:

(1) a document, communication, datum, or report or other information required by a regulatory agency to be collected, developed, maintained, or reported under a federal or state environmental or health and safety law;

(2) information obtained by observation, sampling, or monitoring by a regulatory agency; or

(3) information obtained from a source not involved in the preparation of the environmental or health and safety audit report.

(b) This section does not limit the right of a person to agree to conduct and disclose an audit report.

§9. Review of Privileged Documents by Governmental Authority.

(a) Where an audit report is obtained, reviewed, or used in a criminal proceeding, the administrative or civil evidentiary privilege created by this Act is not waived or eliminated for any other purpose.

(b) Notwithstanding the privilege established under this Act, a regulatory agency may review information that is required to be available under a specific state or federal law, but such review does not waive or eliminate the administrative or civil evidentiary privilege where applicable.

(c) If information is required to be available to the public by operation of a specific state or federal law, the governmental authority shall notify the person claiming the privilege of the potential for public disclosure prior to obtaining such information under Subsection (a) or (b).

(d) If privileged information is disclosed under Subsection (b) or (c), on the motion of a party, a court or the appropriate administrative official shall suppress evidence offered in any civil or administrative proceeding that arises or is derived from review, disclosure, or use of information obtained under this section if the review, disclosure, or use is not authorized under Section 8. A party having received information under Subsection (b) or (c) has the burden of proving that the evidence offered did not arise and was not derived from the review of privileged information.

§10. Voluntary Disclosure; Immunity.

(a) Except as provided by this section, a person who makes a voluntary disclosure of a violation of an environmental or health and safety law is immune from an administrative or civil penalty for the violation disclosed.

(b) A disclosure is voluntary only if:

(1) the disclosure was made promptly after knowledge of the information disclosed is obtained by the person;

(2) the disclosure was made in writing by certified mail to an agency that has regulatory authority with regard to the violation disclosed;

(3) an investigation of the violation was not initiated or the violation was not independently detected by an agency with enforcement jurisdiction before the disclosure was made using certified mail;

(4) the disclosure arises out of a voluntary environmental or health and safety audit;

(5) the person who makes the disclosure initiates an appropriate effort to achieve compliance, pursues that effort with due diligence, and corrects the noncompliance within a reasonable time;

(6) the person making the disclosure cooperates with the appropriate agency in connection with an investigation of the issues identified in the disclosure; and

(7) the violation did not result in injury or imminent and substantial risk of serious injury to one or more persons at the site or off-site substantial actual harm or imminent and substantial risk of harm to persons, property, or the environment.

(c) A disclosure is not voluntary for purposes of this section if it is a report to a regulatory agency required solely by a specific condition of an enforcement order or decree.

(d) The immunity established by Subsection (a) of this section does not apply and an administrative or civil penalty may be imposed under applicable law if:

(1) the person who made the disclosure intentionally or knowingly committed or was responsible within the meaning of Section 7.02, Penal Code, for the commission of the disclosed violation;

(2) the person who made the disclosure recklessly committed or was responsible within the meaning of Section 7.02, Penal Code, for the commission of the disclosed violation and the violation resulted in substantial injury to one or more persons at the site or off-site harm to persons, property, or the environment;

(3) the offense was committed intentionally or knowingly by a member of the person's management or an agent of the person and the person's policies or lack of prevention systems contributed materially to the occurrence of the violation;

(4) the offense was committed recklessly by a member of the person's management or an agent of the person, the person's policies or lack of prevention systems contributed materially to the occurrence of the violation, and the violation resulted in substantial injury to one or more persons at the site or off-site harm to persons, property, or the environment; or

(5) the violation has resulted in a substantial economic benefit which gives the violator a clear advantage over its business competitors.

(e) A penalty that is imposed under Subsection (d) of this section should, to the extent appropriate, be mitigated by factors such as:

(1) the voluntariness of the disclosure;

(2) efforts by the disclosing party to conduct environmental or health and safety audits;

(3) remediation;

(4) cooperation with government officials investigating the disclosed violation; or

(5) other relevant considerations.

(f) In a civil or administrative enforcement action brought against a person for a violation for which the person claims to have made a voluntary disclosure, the person claiming the immunity has the burden of establishing a prima facie case that the disclosure was voluntary. After the person claiming the immunity establishes a prima facie case of voluntary disclosure, other than a case in which under Subsection (d) of this section immunity does not apply, the enforcement authority has the burden of rebutting the presumption by a preponderance of the evidence or, in a criminal case, by proof beyond a reasonable doubt.

(g) In order to receive immunity under this section, a facility conducting an environmental or health and safety audit under this Act must give notice to an appropriate regulatory agency of the fact that it is planning to commence the audit. The notice shall specify the facility or portion of the facility to be audited, the anticipated time the audit will begin, and the general scope of the audit. The notice may provide notification of more than one scheduled environmental or health and safety audit at a time.

(h) The immunity under this section does not apply if a court or administrative law judge finds that the person claiming the immunity has, after the effective date of this Act, (1) repeatedly or continuously committed significant violations, and (2) not attempted to bring the facility or operation into compliance, so as to constitute a pattern of disregard of environmental or health and safety laws. In order to be considered a "pattern," the person must have committed a series of violations that were due to separate and distinct events within a three-year period at the same facility or operation.

(I) A violation that has been voluntarily disclosed and to which immunity applies must be identified in a compliance history report as being voluntarily disclosed.

§11. Circumvention by Rule Prohibited.

A regulatory agency may not adopt a rule or impose a condition that circumvents the purpose of this Act.

§12. Applicability.

The privilege created by this Act applies to environmental or health and safety audits that are conducted on or after the effective date of this Act.

§13. Relationship to Other Recognized Privileges.

This Act does not limit, waive, or abrogate the scope or nature of any statutory or common law privilege, including the work product doctrine and the attorney-client privilege.

APPENDIX B

Government Code Chapter 552. Open Records

§552.021. Availability of Public Information.

Public information is available to the public at a minimum during the normal business hours of the governmental body.

§552.124. Exception: Certain Audits.

Any documents or information privileged under the Texas Environmental, Health, and Safety Audit Privilege Act are excepted from the requirements of Section 552.021.

§552.352. Distribution of Confidential Information.

(a) A person commits an offense if the person distributes information considered confidential under the terms of this chapter.

(b) An offense under this section is a misdemeanor punishable by:

(1) a fine of not more than $1,000;

(2) confinement in the county jail for not more than six months; or

(3) both the fine and confinement.

(c) A violation under this section constitutes official misconduct.

APPENDIX C

Model Notice of Audit Letter

September 30, 1997

Via Certified Mail, Return Receipt Requested, No. P11 072 4458

Mr. Joe Vogel, Deputy Director, MC-172
Office of Compliance and Enforcement
Texas Natural Resource Conservation Commission
P.O. Box 13087
Austin, Texas 78711-3087

Re: ABC Corporation; Elgin Plant—Unit No. 6; Facility ID No. 78390; Registration No. 99220; Permits No. 12345, 678910; Scheduled Environmental, Health, and Safety Audit

Dear Mr. Vogel:

Please be advised that in accordance with Environmental, Health and Safety Audit Privilege Act (the "Audit Act"), the ABC Corporation's Corporate Audit Group intends to conduct an Environmental, Health and Safety compliance audit at its Elgin Plant located at 800 N. Main, Elgin, Bastrop County, Texas.

Pursuant to Section 10(g) of the Audit Act, which provides immunity for violations voluntarily disclosed as a result of a compliance audit, ABC Corporation is hereby notifying you that the planned audit will commence on October 23, 1997, at approximately 9 a.m. and will cover Unit No. 6. The scope of the audit will be to evaluate compliance with all applicable Environmental, Health and Safety regulations, as well as Permits No.12345 and 678910. Pursuant to Section 4(e) of the Audit Act, the audit will be completed no later than six months after the date of its commencement, unless, pursuant to a written request for extension, we receive your written approval of an extension before the end of the six-month period.

Please do not hesitate to contact me at (512) 555-4567 if you have any questions or require further information regarding this matter.

Sincerely,

Manager, Environmental, Health, and Safety Affairs

cc: Larry Smith, Regional Manager, Austin Regional Office, TNRCC

APPENDIX D

Model Disclosure of Violation Letter

December 30 ,1997

Via Certified Mail, Return Receipt Requested, No. P11 978 0983

Mr. Joe Vogel, Deputy Director, MC-172
Office of Compliance and Enforcement
Texas Natural Resource Conservation Commission
P.O. Box 13087
Austin, Texas 78711-3087

Re: ABC Corporation; Elgin Plant—Unit No. 6; Facility ID No. 78390; Registration No. 99220; Permits No. 12345, 678910; Voluntary Disclosure of Violations Discovered Pursuant to a Scheduled Environmental, Health, and Safety Audit; NOA Dated September 30, 1997

Dear Mr. Vogel:

ABC Corporation has conducted an environmental audit of our Elgin Plant, located at 800 N. Main, Elgin, Bastrop County, Texas. Advance notice of the audit was given to you by letter dated September 30, 1997. The audit covered Unit No. 6; it began on October 23, 1997, and was completed on December 15, 1997. This letter is to notify you of several violations discovered in the environmental audit. Accordingly, ABC Corporation hereby invokes the immunity from civil and administrative penalties provided by Section 10 of the Audit Act.

The enclosed addendum summarizes the violations discovered; the time periods during which the violations occurred; the specific rule or permit provision violated; and the status and schedule of corrective actions.

Please do not hesitate to contact me at (512) 555-4567 if you have any questions or require further information regarding this matter.

Sincerely,

Manager, Environmental, Health, and Safety Affairs

Enclosure

cc: Larry Smith, Regional Manager, Austin Regional Office, TNRCC

TONI TOLIVER
TNRCC

Toni Toliver is an attorney with the Litigation Division of the TNRCC and coordinates the agency's Supplemental Environmental Project program and the agency's administration of the Texas Environmental, Health, and Safety Audit Privilege Act. She received her BBA with honors from The University of Texas at Austin in 1993. She graduated from South Texas College of Law and obtained her law license in 1996. Prior to joining the TNRCC, Toni Toliver spent three years in private practice in Houston, primarily working in the areas of insurance defense and insurance coverage. She joined the TNRCC's Litigation Division in April 2000.

Toni Toliver can be contacted at 512-239-6122 or at ttoliver@tnrcc.state.tx.us.

EPA REGION 6

Biography

For more information, please contact the EPA Region 6
Office of External Affairs at 214 665-2200

Gregg A. Cooke

Regional Administrator

Gregg Cooke was appointed as Regional Administrator for the U.S. Environmental Protection Agency's Region 6 in May 1998. He has made it his mission to strengthen partnerships to ensure a sustainable environment for communities in the Central-South states of Arkansas, Louisiana, New Mexico, Oklahoma and Texas.

Mr. Cooke has a long history of working to protect communities along the U.S. and Mexico Border. Earlier, he served as the Texas' North American Free Trade Agreement Environmental Liaison, assisting the Border Environment Cooperation Commission in Ciudad Juárez, Chihuahua, Mexico, as interim general counsel.

During his tenure at EPA, he has led the effort to strengthen federal, state, non-profit and public alliances to address environmental challenges in the Central-South states and has been a dedicated leader in transforming EPA into a modern, results-oriented organization. As a result, a new type of relationship (based on cooperation, flexibility and trust) has been forged between the public, community leaders, non-profit organizations, state agencies and EPA.

Mr. Cooke has strengthened the states role as co-regulators - while ensuring the nation's health-based standards are met. During his tenure, much of the delegation of federal programs to the Central-South states has occurred - demonstrating Cooke's strong commitment to federal/state partnership.

He has worked to build a sustainable environment - one that balances jobs and environmental protection - by promoting voluntary, incentive-based solutions and has led the effort to strengthen region 6 state's voluntary clean-up programs under Brownfields, to provide regulatory relief and innovation under e**X**cellence in **L**eadership projects to create financial and priority setting flexibility using performance partnership agreements, and to streamline and reduce reporting under One Stop Reporting.

Mr. Cooke has worked to create an open dialogue among business, industry, environmental organizations, elected officials and citizens on important environmental and public health problems. Each year, he makes himself available at small town hall meetings with citizens, on-site tours and large conventions, to discuss and learn about important issues. He has worked to reinvent environmental protection using Alternative Dispute Resolution to achieve solutions.

Previously, Mr. Cooke practiced environmental law as a partner with a major Austin law firm. He also served as an Assistant Attorney General for the State of Texas for three years, first as Chief of the Environmental Protection Division and later as Chief of the Natural Resources Division.

Current as of April 2001

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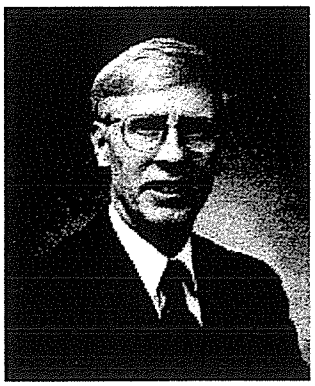
Robert J. Huston



Gov. George W. Bush appointed Robert J. Huston chairman of the Texas Natural Resource Conservation Commission on Jan. 7, 1999.

Most recently, Huston was chief financial officer of the Bonner Carrington Corporation-European market and is a co-owner of the Durham Trading and Design Co.

He is best known as co-founder of Espey, Huston & Associates Inc., an engineering and environmental consulting firm, where he served as executive vice president and chief operating officer. Planet Pacific Inc. (PPI) of Mission Viejo, Calif., acquired the firm in 1989. Huston moved to California to serve as vice president of operations for PPI from 1991 to 1993.

Huston, who holds a mathematics degree from the University of Texas at Austin, has long been active in the Texas Water Conservation Association (TWCA), where he has served as president and board chairman. He resides in Austin with his wife Shirley, and has two grown children, Stacey and Scott.

Huston succeeds former TNRCC Chairman Barry McBee, who resigned to become executive assistant to Lt. Governor Rick Perry.

Huston's term will end Aug. 31, 2003.

OFF-SITE CONTAMINATION:

LEGAL ISSUES

R. Walton Shelton
Attorney at Law
4408 Spicewood Springs Road
Suite 105
P.O. Box 27367
Austin, Texas 78755-2367

Thirteenth Annual Texas Environmental Superconference
August 2-3, 2001
Four Seasons Hotel
Austin, Texas

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OFF-SITE CONTAMINATION:

LEGAL ISSUES

I. Introduction

Off-site environmental impacts raise a host of legal issues. One common scenario is groundwater contamination from one or more sources affecting more than one tract of real estate. This paper focuses on certain off-site issues in this context from the perspective of the on-site or source tract owner. It is neither an exhaustive list of off-site issues nor an exhaustive treatment of the issues raised. Rather, this paper highlights characteristic issues for purposes of discussion.

For simplicity, consider a hypothetical situation involving two adjacent tracts of land in Texas owned by O and T. O's tract has a source of groundwater contamination affecting both properties. Assume that the source is a historic dry-cleaning operation and that O is voluntarily addressing the impact under the oversight of the Texas Natural Resource Conservation Commission ("TNRCC"). Some of the key off-site issues relate to liability, access, and notice.

II. Liability

A. Environmental Statutory Liability

As the source tract owner, O is a "responsible party" subject to strict liability (regardless of the actual cause or historical source of contamination) under the Texas Solid Waste Disposal Act ("TSWDA")[1] and the federal superfund statute[2] for addressing the contamination on both properties. O is also subject to potential liability for natural resource damages,[3] which is beyond the scope of this paper. In addition to O, T could also be subject to strict liability for the contamination, although T would possibly qualify for a defense because the contamination was caused by a third party with whom T does not have a direct or indirect contractual

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[1] TEX. HEALTH & SAFETY CODE ANN. § 361.271(a)(1) (TEXAS SOLID WASTE DISPOSAL ACT, "TSWDA" -- as the current owner of a solid waste facility, *i.e.*, contaminated real estate in the hypothetical). There are additional bases for O's liability under state law, such as TEX. WATER CODE ANN. § 26.121.

[2] 42 U.S.C. § 9607(a)(1) (as the current owner of a facility where there is a release or threatened release of a hazardous substance under the Comprehensive Environmental Response, Compensation & Liability Act, "CERCLA," aka "Superfund"). In addition to CERCLA, broad enforcement provisions in the Resource Conservation and Recovery Act ("RCRA") are sources of potential liability for O as a "contributor" to solid waste contamination, 42 U.S.C. §§ 6972-73.

[3] 42 U.S.C. § 9607(a)(4)(C) and (f).

relationship.[4] T is perhaps most vulnerable to liability if T does not cooperate in O's investigation of the impact based on a broad provision in the Texas Water Code frequently utilized by TNRCC in enforcement actions related to contaminated property. Generally, under Section 26.121 of the Texas Water Code, no one can cause, suffer or allow water pollution, which includes contaminated groundwater.[5] Under this provision, for example, TNRCC could consider T as suffering or allowing water pollution by not providing access to O to fully investigate the impact.

In addition to liability for responding to the contamination, O in particular could be subject to administrative penalties for the cause of impact, including allowing the continuing impact by not responding. Although not a focus for this paper, it is noteworthy that such administrative penalties could range up to $10,000 per day under the Water Code.[6]

B. Voluntary Cleanup Program

A common mechanism for O to respond to the contamination is the TNRCC's Voluntary Cleanup Program ("VCP").[7] Generally under the VCP, O would apply to the VCP, pay a $1,000 application fee, enter into a VCP agreement with TNRCC, and complete a response action in accordance with TNRCC closure standards.[8] The closure standard would typically be a choice of active and/or passive response actions within the Texas Risk Reduction Program ("TRRP").[9] In order to complete the VCP process and obtain either a final or Conditional Certificate of Completion ("Certificate"), O must address on and off-site impacts under TRRP standards. Under the VCP, O would be protected from an enforcement action by TNRCC related to the contamination or release being addressed as long as O was in compliance with the VCP agreement.[10] Future owners, operators, and other persons (*e.g.*, lenders) with an interest in O's tract would benefit from a limited release of liability from the State of Texas for cleanup of the area covered by the VCP Certificate, as long as such persons acquired their property

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[4] TSWDA § 361.275; *see also* 42 U.S.C. § 9607(b)(3). It should be noted that O could also qualify for the third party defense in particular circumstances, but O is assumed to be a responsible party without any defense for purposes of this paper.

[5] TEX. WATER CODE ANN. § 26.121(a) and (c); *see* § 26.001 (5) and (14) for definition of "water" and "pollution," respectively.

[6] *Id.* at § 7.052(b); civil penalties can range up to $25,000 per day plus attorneys fees. *Id.* at §§ 7.102 and 7.108.

[7] TSWDA §§ 361.601-613; 30 TEX. ADMIN. CODE Chap. 333, Subchap. A.

[8] *Id.*

[9] 30 TEX. ADMIN. CODE Chap. 350.

[10] TSWDA § 361.606(e).

interest after TNRCC issued a Certificate or co-applied to the VCP with O before acquiring their interest.[11]

C. Innocent Owner/Operator Program

T's potential liability is mitigated by a sibling program of the VCP, the Innocent Owner/Operator Program ("IOP").[12] Generally, if T proves to TNRCC that his property is contaminated solely as a result of off-site migration of contaminants and reasonably cooperates (including providing access) in the response to those contaminants, then TNRCC will issue an IOP certificate to T. This will protect T from liability to the state for response actions related to the contamination under both the Texas Health and Safety Code and the Texas Water Code.[13] The IOP program is essentially a statutory codification in Texas of an earlier EPA policy of avoiding federal enforcement against persons in T's position.[14] It is important to note that the IOP certification would be contaminant and environmental media specific (*e.g.*, specific solvents in groundwater). IOP protection would also be personal to T, meaning that it would not run with the land. In contrast, if the contamination was addressed under the VCP to the point of closure with the TNRCC issuing a Certificate covering T's property, then T should be protected for all contaminants in all media except for any contamination caused by T.[15] Unlike IOP certification, a VCP Certificate runs with the land and would offer protection to future owners of and other interest holders in T's tract.

It is not uncommon for persons such as T to demand that source tract owners like O fund the TNRCC process for T to obtain an IOP certificate. In this scenario, for example, T might insist on an IOP certificate as consideration for granting O access to T's property. One downside of the IOP for O is that the TNRCC requires notice to all landowners adjacent to the IOP applicant,[16] which potentially multiplies the number of off-site headaches for O.

D. Tort and Contractual Liability

In addition to the environmental statutory liability concerns that are this paper's focus, O's potential liability for off-site impacts includes common law exposure. For example, in certain

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[11] *Id.* at § 361.610.

[12] *Id.* at §§ 361.751 - 361.754; 30 TEX. ADMIN. CODE Chap. 333, Subchap. B.

[13] TSWDA at § 361.752.

[14] *See, e.g.*, Final Policy Toward Owners of Property Containing Contaminated Aquifers, 60 FED. REG. 34, 790 (1995).

[15] TSWDA § 361.610(b).

[16] 30 TEX. ADMIN. CODE § 333.36(a).

cases, T could potentially sue O for nuisance, trespass, or negligence and seek damages for such impact.[17] In addition to this common law or "toxic tort" exposure, if T grants access to O under a contractual agreement, then O has contractual liability risks for any breach. The following section addresses access issues, including certain contractual matters.

III. Access

O needs access to T's property to investigate and address the contamination. Access can be granted in various forms. One common access mechanism is for T to give O a revocable license with or without any writing. Although a written access agreement is not required, one might be advisable. A written access agreement will often afford greater benefits to T than O because of T's relative bargaining power. For example, T could insist on provisions for indemnification, tolling the statute of limitations, and/or (as noted above) O providing an IOP certificate to T and/or a VCP Certificate covering T's property. In some circumstances, T might ask for monetary compensation to provide the access.

For O, a written access agreement could document T's provision of access and afford other benefits to O, such as specifying an appropriate term for the access and limiting T's remedies by contract. Nevertheless, O might prefer not to have such an agreement, principally to avoid providing the contractual advantages that T might reap from such an agreement. Without a written access agreement, documentation of access is a problem if a dispute arises. One way to combat this concern would be for O to document O's access through gratuitous correspondence with T.

If O reasonably works to obtain access from T and T either refuses or requests something unreasonable, then T loses eligibility for an IOP certificate.[18] Additionally, TNRCC can possibly assist O. TNRCC has a process based in internal guidance to deal with recalcitrant off-site landowners. This process includes two letters with graduated severity. The first letter is a friendly request to cooperate, but in the second letter, TNRCC threatens enforcement. Attachment A to this paper includes these TNRCC off-site owner form letters and a related TNRCC memorandum.

IV. Notification

A. Reporting

Off-site impact raises numerous notice issues for O. Upon discovery of the impact, O might be required to notify the TNRCC of the existence of the impact.[19] Although not purely

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[17] Even if O obtains an IOP Certificate for T, T's remedies are not thereby limited. *See* TSWDA § 361.754.

[18] TSWDA § 361.752(c).

[19] *E.g.*, TEXAS WATER CODE ANN. § 26.039(b) can be interpreted to require reporting the discovery of historical contamination (especially to water) to TNRCC.

an "off-site" issue, any notice by O to TNRCC or the EPA would be a public record accessible by off-site property interest holders such as T.

B. Notice to Off-Site Interest Holders

Key notification issues relate to required notices by O to T. Under TRRP, there are several potential notice triggers that TNRCC has included in Guidance Document No. 17. The February 2001 version of this document is included as Attachment B. It outlines six scenarios under TRRP requiring notice by O of certain levels of and/or circumstances related to off-site impact. For sites grandfathered under the TRRP predecessor Risk Reduction Rules,[20] TNRCC generally addressed off-site notice issues as a matter of policy. For petroleum storage tank ("PST") sites, which are handled under PST closure standards[21] (instead of TRRP) for releases discovered and reported until September 1, 2003,[22] TNRCC can require responsible parties to provide off-site notice on a case-by-case basis.[23] Beyond required notice considerations, O would want to consider notifying T of the impact and keeping T informed of developments as a way of mitigating O's liability exposure to T.

C. Deed Recordation

In addition to notices running from the source tract owner O to the off-site interest holder T, notification and/or property use restrictions in deed records is a key off-site contamination issue. In what circumstances can TNRCC require some type of real property recordation for T's land? There are several scenarios under TRRP, such as O's utilization of a plume management zone, a long term remedy, non-residential land use, and closure with controls.[24] Generally, T must consent to any deed recordation affecting T's property.[25] In limited circumstances where T is uncooperative, however, O can seek judicial assistance to file a deed notice without T's consent.[26] A TRRP workgroup currently is working on an Industrial Controls guidance document (TRRP 16), which should be finalized in the next few months.

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[20] 30 TEX. ADMIN. CODE Chap. 335, Subchap. S.

[21] *Id.* at Chap. 334, Subchap. D and G.

[22] *Id.* at § 350.2(g).

[23] *Id.* at 334.82(b).

[24] *Id.* at § 350.111(a) and (b).

[25] *Id.* at § 350.111(c). It should be noted that in circumstances where T has an IOP certificate, TRRP requires a restrictive covenant instead of a notice.

[26] *Id.* at § 350.111(d).

Any deed recordation restricting T's property use (*e.g.*, industrial use only, no water wells without TNRCC's consent) can be problematic for O. If closure is under the VCP and the Certificate covers T's property as well as O's site, then recording the Certificate can be beneficial to T because T and future interest holders in T's property can potentially benefit from the limited protection from liability to the state under the VCP.[27] T might or might not see such deed recordation of the Certificate as advantageous, especially if the Certificate has conditions amounting to post-closure requirements and/or property use restrictions. Additionally, if there is any contaminant source on T's property, TNRCC would require it to be addressed before covering T's property with a Certificate.

V. Conclusion

The financial and liability concerns of an owner or operator of contaminated real estate multiply when the contamination extends off-site. While mechanisms such as an IOP Certificate can mitigate the situation, regulatory requirements and other liability concerns necessitate a close working relationship with neighbors in order to achieve closure goals in a cost and time effective manner.

[27] TSWDA § 361.610.

ATTACHMENT A

Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Ron Pedde, Acting Deputy Director
Office of Waste Management

Date: March 31, 1998

Joe Vogel, Deputy Director
Office of Compliance and
Enforcement

Jim Philips, Deputy Director
Office of Legal Services

Thru: DD David L. Davis, Director
Pollution Cleanup Division

CXF Carl X. Forrester, Director
Alternative Dispute Resolution Division

AMM Ann McGinley, Director
Enforcement Division

PCS for SAR John Riley, Director
Litigation Support Division

KM Kevin McCalla, Director
Legal Division

From: CE Chuck Epperson, Manager
Voluntary Cleanup Section, Pollution Cleanup Division

RDO Ramon Dasch, Senior Attorney
Legal Division

Subject: Coordination Procedures for Gaining Access to Off-site Properties

Texas Health and Safety Code, Subchapter V, provides an immunity of liability from the Texas Water Code and the Texas Health and Safety Code for innocent owners and operators. Innocent owners/operators are defined as owners/operators of property that has become contaminated from an off-site source where the owner/operator did not cause or contribute to the off-site source. The statute was part of House Bill 2776, 75th Legislature, and became effective on September 1, 1997. An important qualification to the designation of a person as an innocent owner/operator is the

requirement that the person provide reasonable access to their property for purposes of investigation and remediation to a person designated by the executive director. An agreement for reasonable access may provide several conditions set forth by statute including reasonable compensation to the innocent owner/operator. These provisions of the statute are found in §361.752(c).

For problems in gaining access to off-site properties which arise within the Pollution Cleanup Division, this Interoffice Memorandum describes the coordination procedures necessary between the Pollution Cleanup, Enforcement, and Litigation Support Divisions. In addition, The Office of Alternative Dispute Resolution (ADR) is discussed as a possible alternative to the traditional enforcement process. The aforementioned divisions will follow the procedures detailed below in order to assist persons designated by the executive director in gaining access under Texas Health and Safety Code, §361.752(c).

Step 1: Upon receipt of a notice from the person designated by the executive director that access has been denied, the affected program in the Pollution Cleanup Division shall affirm such facts by requesting from the person denied access a copy of a certified letter requesting access for the purposes of investigation and/or remediation.

Step 2: The Pollution Cleanup Division will notify the owner or operator:

(1) that the agency has received documentation indicating the person's reluctance to provide access to their property; and

(2) that the agency designated the person requesting access as a person entitled to reasonable access for the purposes of investigation and remediation.

The Pollution Cleanup Division will attempt to persuade the owner or operator to give access. If the owner or operator continues to deny access, the Pollution Cleanup Division will then provide ADR with all information relevant to the case. ADR will notify the disputing parties of the availability and purpose of mediation through ADR as an alternative to possible enforcement. ADR will notify the Pollution Cleanup Division as to whether or not the parties have agreed to mediation and if mediation is successful.

Step 3: If the parties refuse mediation or if mediation is unsuccessful, Pollution Cleanup Division will issue a Notice of Violation of §26.121 of the Texas Water Code and require that the owner or operator provide access within 30 days. If the owner or operator fails to provide such access, then the Pollution Cleanup Division will initiate enforcement action via a memo to the Enforcement Division.

Step 4: The Enforcement Division will develop an enforcement case in accordance with Texas Water Code, §26.121 against the "owner or operator" as a person who is causing, suffering, allowing, or permitting the discharge of waste. The enforcement action shall seek access for the designated person and revocation of any Innocent Owner or Operator Certificate held by the person named in the enforcement action. This case will be developed with Litigation Support Division utilizing the enforcement process described in Tex.Admin.Code ch. 70.

1st letter

January 10, 2000

Certified Mail - Return Receipt Requested

KEYBOARD(Affected Property Owner, Address, City)

Re: Request for Access to Property; Voluntary Cleanup Program (VCP) No. KEYBOARD(VCP #)

Dear KEYBOARD(Mr. or Ms. Last Name):

The Texas Natural Resource Conservation Commission (TNRCC) understands that you have not responded to a letter from KEYBOARD(Applicant) requesting access OR understands that you are reluctant to grant access to KEYBOARD(Applicant) to the KEYBOARD(Affected Property) in order to collect KEYBOARD(Type Media) samples and/or remediate your property. KEYBOARD(Applicant) has initiated an investigation of the nature and extent of contamination at the KEYBOARD(Applicant's Property). Based on the results from this investigation, contamination on KEYBOARD(Applicant's) property may have been released or migrated onto your property. If the presence of contamination on your property is confirmed, KEYBOARD(Applicant) has a responsibility to complete necessary investigation and remediation activities on your property. In order to fulfill this commitment, the TNRCC has designated KEYBOARD(Applicant), as an entity which must seek reasonable access to your property for the purpose of completing these activities.

If contamination from KEYBOARD(Applicant's) property has released or migrated onto your property and you have not caused or contributed to that contamination, you may be considered an innocent owner or operator and not be held liable for that contamination under the Texas Health and Safety Code or the Texas Water Code (see Texas Health and Safety Code, Chapter 361-Subchapter V). This liability release is contingent on you providing KEYBOARD(Applicant) reasonable access to your property for investigation and remediation to KEYBOARD(Applicant). In addition, you may apply to the TNRCC's Innocent Owner/Operator Program (IOP) for a certificate which confirms that you are an innocent owner or operator.

The TNRCC urges you to allow KEYBOARD(Applicant) onto your property so that they may complete their activities. We will expect a signed agreement between yourself and KEYBOARD(Applicant) and written notification to me within 30 days of the date of this letter. If you have any questions regarding this issue or desire more information about the IOP, please feel free to contact me at (512) 239-KEYBOARD(Extension).

Sincerely,

KEYBOARD(Project Manager Name), Project Manager
Voluntary Cleanup Section
Remediation Division

KEYBOARD(Initials)/ts

cc: KEYBOARD(VCP Applicant)

2nd letter.

DATE

Certified - Return Receipt Requested

KEYBOARD(Affected Property Owner, Address, City)

Re: Request for Access to Property; Voluntary Cleanup Program (VCP) No. KEYBOARD(VCP #)

Dear KEYBOARD(Mr. or Ms. Last Name):

It is the understanding of the Texas Natural Resource Conservation Commission (TNRCC) that an access agreement between you and KEYBOARD(Applicant) has not been executed within the 30 day time frame requested in the TNRCC's letter dated KEYBOARD(Letter Date). As stated in the previous letter, the TNRCC has designated KEYBOARD(Applicant) as an entity which must seek reasonable access to your property for the purpose of completing necessary investigation and remediation activities. Because corrective action at the above referenced site cannot be completed until the access agreement has been obtained, the VCP is providing the TNRCC's Office of Alternative Dispute Resolution (ADR) with information regarding the case, along with a request for ADR to mediate the execution of a reasonable access agreement.

If you refuse mediation or if the ADR determines that mediation is unsuccessful, the VCP will issue you a Notice of Violation which states that by not allowing reasonable access to your property or completing the corrective action yourself, you may be in violation of the following:

- *Chapter 26.121(a) and (c) of the Texas Water Code* which states that except as authorized by rule, permit or order issued by the TNRCC, no person may discharge waste into or adjacent to any water in the state, commit any act or engage in any other activity which causes, continues to cause, or will cause pollution of any of the waters in the state, or cause, suffer, allow or permit the discharge of any waste or performance of any activity in violation of Chapter 26 of the Texas Water Code.

- *30 Texas Administrative Code §335.4* which states that no person may cause, suffer, allow or permit the collection, handling, storage, processing or disposal of industrial solid waste in such a manner so as to cause: (1) the discharge or imminent threat of discharge of such waste into or adjacent to waters in the state without obtaining specific authorization for such a discharge from the TNRCC; (2) the creation and maintenance of a nuisance; or (3) the endangerment of the public health and welfare.

In response to continued violation, the TNRCC may institute enforcement action, including administrative penalties of up to $10,000 per day per violation, as authorized by §7.052(b) of the Texas Water Code.

In the next few weeks, the ADR will contact both you and KEYBOARD(Applicant) to discuss a schedule for any mediation provided through their office. The ADR will then notify the VCP as to whether or not you and KEYBOARD(Applicant) have agreed to mediation and if mediation is successful. Should mediation fail, the TNRCC may pursue an enforcement action against you. Therefore, we continue to urge you to allow KEYBOARD(Applicant) onto your property so that they may complete necessary investigation and remediation activities.

If you have any questions, please feel free to contact me at (512) 239-KEYBOARD(Extension).

Sincerely,

KEYBOARD(Project Manager Name), Project Manager
Voluntary Cleanup Section
Remediation Division

KEYBOARD(Initials)/ts

cc: KEYBOARD(VCP Applicant)

ATTACHMENT B

TNRCC Regulatory Guidance

Remediation

RG-366/TRRP-17 February 2001

SUBJECT: Notification Requirements

Objectives: This guidance describes the process to provide notification as required by the TRRP.

Audience: Regulated Community and Environmental Professionals

References: The regulatory citation for Texas Risk Reduction Program (TRRP) rule for notification is 30 TAC §350.55 and §350.31(i).

The TRRP Rule and Preamble are on-line at http://www.tnrcc.state.tx.us/oprd/rules/indxpdf5.html .

The TRRP rule, together with conforming changes to related rules, is contained in 30 Texas Administrative Code Chapter 350, and was published in the September 17, 1999 Texas Register (24 TexReg 7413-7944). Download Tier 1 PCL Tables, toxicity factors and other TRRP information at http://www.tnrcc.state.tx.us/permitting/trrp.htm .

Contact: Technical Support Section at 512/239-0310; Corrective Action Section 512/239-2343; Site Assessment & Management Section 512/239-2509; Superfund Cleanup Section 512/239-2425; Voluntary Cleanup Program Section 512/239-5891

For mailing addresses, see TNRCC's web page at www.tnrcc.state.tx.us .

Overview of Notification Requirements

During the course of an affected property assessment, environmental samples will be collected for chemicals of concern (COCs). TRRP contains provisions that may require the person who had the samples collected to provide a notice to certain parties that the results of those sample analyses are available. Therefore, the person should ask the following six questions, where applicable, to determine if there is a requirement for notification:

1. Does the evaluation of the sample analytical result indicate an "actual or probable human exposure" to a COC at a concentration in excess of a Tier 1 human health protective concentration level (PCL) applicable for the land use?;
2. Am I submitting a sample analysis result to the TNRCC for a sample collected from property that I do not own?;
3. Am I submitting information to the TNRCC that indicates that property that I do not own and have not sampled more likely than not contains a COC originating from on-site activities that is in excess of a residential assessment level?;
4. Was the sample collected from within an easement and if so, is a Tier 1 human health PCL for the applicable land use exceeded?; or
5. Have I received TNRCC approval of a final ecological PCL that is a critical PCL for a specific property that I do not own?; or
6. Am I submitting a TRRP plan or report that contains information that was originally submitted to the TNRCC before TRRP was applied (i.e., historical information) and does that historical information meet the conditions of any of questions 2-5 above?

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As shown in Figure 1, answering any of the six preceding questions in the affirmative will require persons conducting an affected property assessment to provide one of two basic types of notification to certain groups of third parties:

- Notice to people who are "actually or probably" exposed to COCs above certain defined levels of the possible exposure and availability of additional information, and/or
- Notification of the availability of sample analysis results to various types of people whose land may potentially be affected by COCs (e.g., nearby property owners, tenants, holders of utility easements, and other people set forth in the rule and discussed below).

Figure 1 depicts the notification requirements. The notification "trigger" presented in each diamond in Figure 1 should be considered for applicability. If a notification trigger is applicable, then notification must be completed in accordance with the specific requirements for that trigger. The different triggers do not have the same notification requirements. Note that more than one trigger can apply to a given sample analysis result. When such is the case, and more than one notification would be required to be given to the same person, then all notification requirements must be met. However, the requirements can be combined into a single notice provided all requirements and time frames are met.

The party required to make the notification is the "person" as defined in §350.4(a)(62) and who is subject to the applicability provisions of TRRP at §350.2. As indicated by the definition, a person can be either an individual or a business entity such as a corporation, partnership, or other business form. In most cases the person will be the same entity that signed, or will sign, the Affected Property Assessment Report (APAR). For example, a person that has entered the affected property into the VCP program and is taking action under TRRP will be required to provide the notification. Another example of who will be required to provide the notification is a person who is subject to regulation under 30 TAC Chapter 335 (relating to the storage, processing or disposal of industrial solid waste) and is taking action under TRRP in response to a release. Although the person's consultant can make the notification on behalf of the person, the person is responsible for ensuring the notifications are properly provided.

The remainder of this document will describe the specific requirements for each of the six different situations discussed earlier that require notice to be conducted. For convenience, the following table provides a summary of the requirements for providing notice. However, be aware that the table is not comprehensive of all rule requirements, and therefore, the table should be used in conjunction with §350.55.

There is an additional notification requirement set forth in §350.31(i) for owners of land where a response action is planned or underway. This notification provision is discussed in the last section of this guidance document.

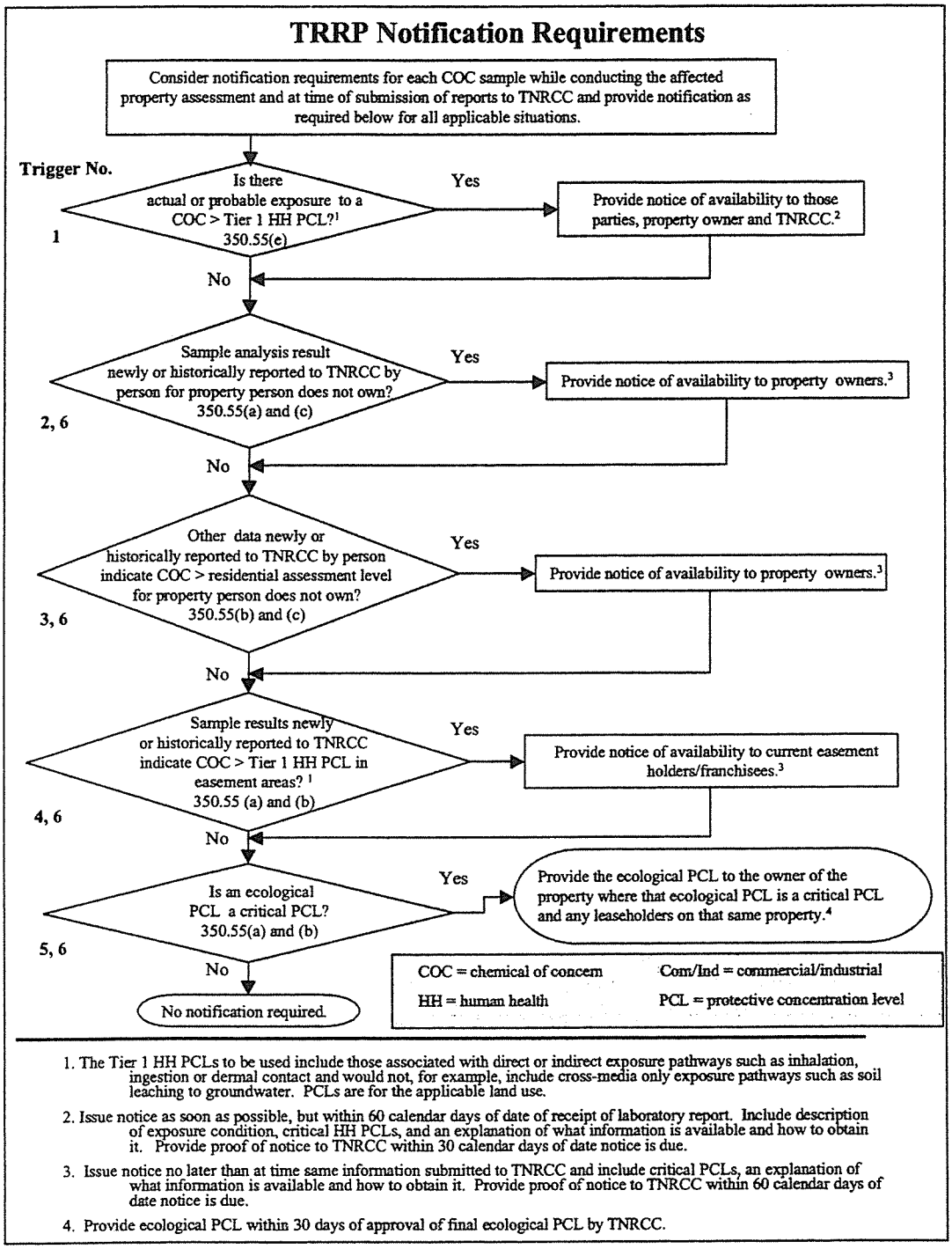

Figure 1. TRRP Notification Triggers

Summary of TRRP Notification Requirements

What triggers notification?	Who is to be notified?*	When to notify?	What is the form and content of the notification?
1. The person receives a sample analysis result that documents the concentration of a COC that someone is "actually or probably" exposed to exceeds the Tier 1 human health PCL for the applicable land use and exposure pathway. [§350.55(e)]	Anyone, either on-site or off-site, who has an "actual or probable" exposure to a COC at a concentration that exceeds the Tier 1 human health PCL for the applicable land use and exposure pathway, **AND** the property owner, **AND** the TNRCC.	As soon as possible, but no later than 60 days after the date that the laboratory analysis is received. If new information indicates other parties are potentially exposed, they must be notified as soon as possible, but no later than 14 days after the date actual or probable exposure was determined, unless determined by additional sampling results in which case they must be notified no later than 60 days after the date that the laboratory analysis is received.	By personal contact, or letter, other effective public communication (a sign mandatorily posted for as long as the exposure conditions exist in publicly accessible areas (e.g., public parks)) notify those actually or probably exposed: ▪ that sampling results for the specific property are available; ▪ that exposure to the COC(s) is possible and how exposure may be occurring; ▪ what the critical human health PCL(s) is/are; and ▪ how to obtain the sample results and any additional information and what that additional information is.
2. The person submits sample analysis results in a plan or report to the TNRCC that were collected from property not owned by the person (i.e., off-site property or property that the person only leases). [§350.55(a)]	Property owner	At the time the first plan or report containing that information is submitted to the TNRCC.	By personal contact, letter, other effective public notice, or signs posted for a minimum of 180 consecutive days, notify the property owner: ▪ that sampling results are available; ▪ what the critical human health PCL(s) is/are; and ▪ how to obtain the information and any additional information and what that additional information is.
3. The person submits information to the TNRCC such as sample analysis results or COC distribution maps that indicate that a COC more likely than not exceeds a residential assessment level on an off-site property that was not sampled and not owned by the person. [§350.55(b)]	Property owner	At the time the first plan or report containing that information is submitted to the TNRCC.	By personal contact, letter, other effective public notice, or signs posted for a minimum of 180 consecutive days, notify the property owner: ▪ that sampling results are available; ▪ what the critical human health PCL(s) is/are; and ▪ how to obtain the sample results and any additional information and what that additional information is.

*Note: Within 60 days of the date the notice is due, the person must provide the TNRCC with a signed notarized affidavit that the §350.55 notification requirements have been completed. In the case of actual or probable exposure, the notarized affidavit is due to the TNRCC within 30 days of the date the notice is due (§350.55(d) and (e)(4)). The person must maintain their proof of notification for no less than 5 years following the issuance of a no further action letter in accordance with §350.34(1) or (3).

Summary of TRRP Notification Requirements

What triggers notification?	Who is to be notified?*	When to notify?	What is the content of the notification?
4. The person submits sample results to the TNRCC that document that a Tier 1 human health PCL applicable for the land use is exceeded at any depth within an easement or franchise area **OR** when information other than direct sampling indicates that a COC concentration exceeds the Tier human health PCL at any depth within an easement or franchise area is submitted to the TNRCC by the person. [§350.55(a) and (b)]	Current easement or franchise area owner (e.g., municipal or private utility, right of way, etc). For municipal entities, provide notice directly to the chief clerk or city secretary.	At the time the first TRRP plan or report containing those sample analysis results or information are submitted to the TNRCC.	By personal contact, letter, other effective public notice, or signs posted for a minimum of 180 consecutive days, notify the easement or franchise holders: ▪ that sampling results are available; ▪ what the critical human health PCL(s) is/are; and ▪ how to obtain the sample results and any additional information and what that additional information is.
5. Receipt of TNRCC approval of a final ecological PCL for a COC and that ecological PCL is the critical PCL for a specific property. [§350.55(a) and (b)]	Property owner and leaseholder(s), to the extent the lessees are known or obvious, of a specific property where the ecological PCL is the critical PCL.	Within 30 days of receipt of TNRCC approval of the Tier 2 or 3 ecological risk assessment which contains the final ecological PCL for a COC to be used under Remedy Standard A or B.	By personal contact, letter, other effective public notice, or signs posted for a minimum of 180 consecutive days, notify the property owner and leaseholder(s): ▪ that the ecological PCL is available; ▪ how to obtain this information and any additional information and what that additional information is.
6. The person submits a TRRP plan or report that contains information that was originally submitted to the TNRCC before TRRP was applied (i.e., historical information) and that historical information meets the conditions of triggers 2-5. [§350.55(c)]	Property owner, easement or franchise area owner, and leaseholder when required the ecological PCL is the critical PCL for the specific property.	At the time the first TRRP plan or report containing that historical information is submitted to the TNRCC.	By personal contact, letter, other effective public notice, or signs posted for a minimum of 180 consecutive days, notify the property owner and leaseholder(s): ▪ that sampling results are available; ▪ what the critical human health PCL(s) is/are; and ▪ how to obtain the sample results and any additional information and what that additional information is.

*Note: Within 60 days of the date the notice is due, the person must provide the TNRCC with a notarized affidavit that the §350.55 notification requirements have been completed. In the case of actual or probable exposure, the notarized affidavit is due to the TNRCC within 30 days of the date the notice is due (§350.55(d) and (e)(4)). The person must maintain their proof of notification for no less than 5 years following the issuance of a no further action letter in accordance with §350.34(1) or (3).

General Requirements

This section discusses requirements that are applicable for all of the six situations that trigger notification.

Responding to Requests for Information

As explained in greater detail later, the person is required to provide a notice of availability of information. If the person receives a written request for the information from a notified party, that information must be provided to that party within 14 calendar days of receipt of the request at the expense of the person.

Notice Format

The notice may be in the form of individual communication by letter or personal contact, or public notice through public meetings, fliers, or signs. The form of notification must be appropriate and effective.

Providing Proof of Compliance with Notification Requirements to TNRCC

The person must submit a signed and notarized affidavit to the TNRCC stating that all notices required by §350.55 have been completed. This affidavit is due to the TNRCC within 60 days of the date notices are due to be made to the parties, except in the case of actual or probable exposure. In the case of actual or probable exposure, the proof of notification must be provided to the TNRCC within 30 days of the date the notice is due to the parties (i.e., no later than 90 days from the receipt of the laboratory analysis results). The notarized affidavit may be included as part of a TRRP report (e.g., Affected Property Assessment Report (APAR), Response Action Plan (RAP)) submitted to the TNRCC on this same affected property when it is submitted within the required period for submission of the affidavit to the TNRCC. When the notification was made directly to parties, such as by mail, personal contact, public meetings, or fliers, a list of the names and addresses of parties notified must be included with the affidavit.

Record Keeping Requirements

The person responsible for notification must maintain proof of notification for a minimum of 5 years following the issuance of a no further action letter that documents that notice was completed (see §350.34(1) or (3) for an explanation of when no further action letters are issued). If requested by the TNRCC, the person must produce this proof.

Notices to Others

Although not required by §350.55, persons required to make notification are urged to notify lenders and other secured parties. "Lenders and other secured parties" means those parties whom the county real property records currently reflect have a security interest in the affected property, including both the on-site and off-site portions of the affected property. Additionally, persons required to make the notification and people receiving the notification may have contractual obligations to notify their lenders and other secured parties. Parties providing or receiving notice should review their contracts with their lenders or other secured parties to determine if additional notices are needed by their contracts. Persons providing notice may want to alert people receiving this notice of the possibility of such contractual requirements.

Information to Aid Identifying Property Ownership, Leases and Easements

Information on property owners is available from county clerk records and from county tax appraisal districts. Many county tax appraisal districts provide access through the Internet to property ownership

records. There is some delay, however, in these records being updated and the information may need to be verified by follow-up inquiry. Information from the county clerks records is available electronically for a fee from electronic search services. Information on recorded easements and leases may also be found in the county clerk records. A person may need to retain the services of a title company in conducting searches of county real property records. In the case of leases, it may be necessary to contact the owner, since not all leases are filed in the public records.

Specific Requirements for Notification Situations

This section discusses the notification requirements that are specific for each of the following situations:

1. Actual or probable human exposure;
2. Samples collected from property owned by someone else;
3. Other information indicating the presence of COCs on property owned by someone else;
4. Concentration of a COC within an easement or franchise area exceeds a Tier 1 human health PCL applicable for the land use;
5. An ecological PCL is the critical PCL; and
6. Resubmission of previously submitted information (i.e., historical information) for property owned by someone else.

Trigger 1. Actual or Probable Human Exposure

Notice must be provided to anyone actually or probably exposed to a COC at a concentration that exceeds the Tier 1 human health PCL established for the applicable current land use and exposure pathways. An exposure pathway is how someone is exposed to the COC. For example, the ingestion of soil that contains COCs is an exposure pathway. Examples of instances where an actual or probable human exposure might occur, thereby, triggering notification under §350.55(e) include, but are not limited to the following:

- Contact with soil at ground surface in areas such as yards, playgrounds or recreational areas where a non-volatile COC is found in excess of Tier 1 human health PCL so that there is incidental ingestion and dermal contact with that soil COC (Figure 2);
- Exposure to vapors in excess of the Tier 1 human health PCL in the basement of a building overlying shallow groundwater containing a COC;
- Ingestion of groundwater from wells containing a COC in excess of the Tier 1 human health PCL (Figure 2);
- Consumption of crops, dairy, beef or other food products with a COC in excess of human health PCLs. (Note that the triggers are based on Tier 2 or 3 PCLs for these additional exposure pathways since there are no Tier 1 PCLs. Notice cannot be delayed until TNRCC review of Tier 2 or 3 PCLs is completed).

Consider the following to determine if anyone is actually or probably exposed:

- The various people who use the affected property;
- Human activity patterns at the affected property;

- Presence of any areas of congregation or recreation (e.g., playgrounds, natural areas, greenbelts, or break areas);
- Distribution and concentration of COCs exceeding Tier 1 human health PCLs;
- Conditions of any structures which may allow or prevent exposure to a COC in soil, water, or vapors; and
- Source of drinking water.

Employees or contractors of the person who are subject to OSHA Hazard Communication programs designed to inform and protect workers from harmful exposure at a facility to the COCs in the affected property would not be required to be provided this type of notice where it can be determined there is not actual or probable exposure. For example, if a worker at a chemical plant is required to wear personal protective equipment that precludes exposure to the COC in question at concentrations greater than Tier 1 commercial/industrial human health PCLs, then notification would not be triggered because there is no actual or probable exposure. It is up to the person to make such a determination; otherwise, notification to the party, that is the actually or probably exposed worker, would be required.

It is important that all potential exposure pathways be identified early in the affected property assessment planning process. Once the samples are collected from areas where actual or probable exposures may be occurring (e.g., playgrounds, drinking water wells), consideration should be given to instructing the analytical laboratory to prioritize the processing and reporting of the sample results.

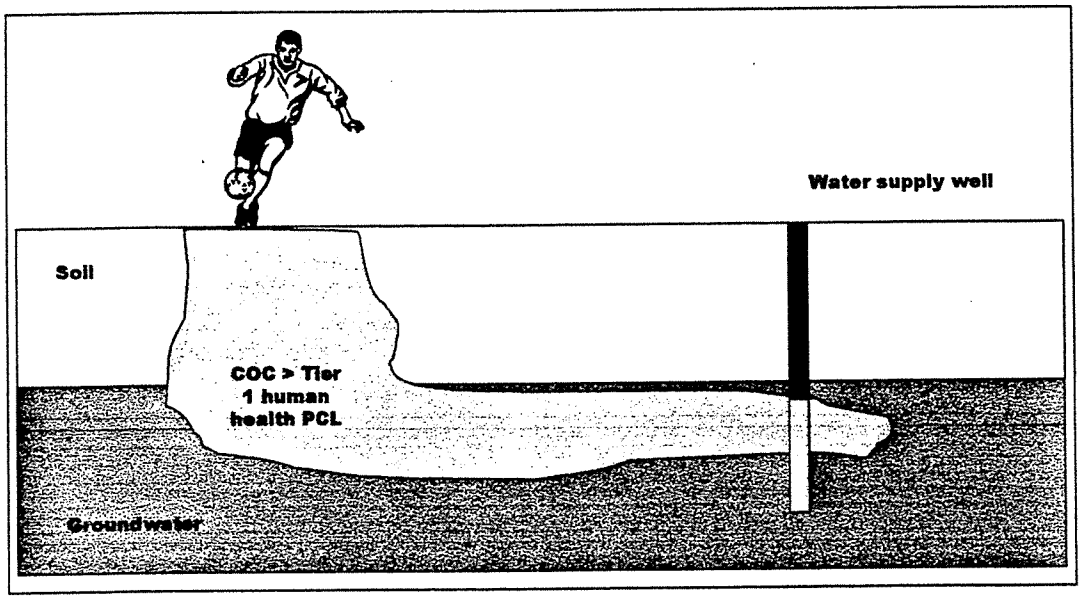

Figure 2. Cross-section of affected property illustrating actual soil contact and groundwater ingestion exposure pathways.

Who must provide notice?

In the course of the assessment, if COCs are determined to be in excess of Tier 1 human health PCLs and there is actual or probable exposure, the person is required to provide the notice to every party who is actually or probably exposed, the property owner (if different), and to the TNRCC. The person is required to provide the notice even if the person conducting actions under TRRP is not the party responsible for the COCs. For example, if the COCs were discovered off-site and actual or probable exposure is occurring at that off-site property, but the person determines that the COCs originated from a

second off-site property (not from the on-site property), the person conducting action under TRRP is still required to provide the §350.55(e) notice for actual or probable exposure. They may indicate in the notice that they are not the responsible party and are only reporting discovered information and may indicate who may be responsible. Alternatively, they may directly contact the third party who is responsible for the COCs and provide them the opportunity to provide notice. However, the person is not released from the responsibility of §350.55(e) in the event that the third party fails to provide notice properly.

As stated in the preceding paragraph, in this situation a notice must also be provided to the TNRCC. When providing the notice to the TNRCC, direct it to the project manager in the TNRCC program area (for example, Corrective Action Section, Voluntary Cleanup Section). Clearly indicate that the information is being sent because there is probable or actual exposure of people to a COC.

What triggers the notification requirement?

The notification requirement for actual or probable human exposure is triggered "upon the receipt of the laboratory analysis from the performing laboratory" that documents that the concentration of the COC that someone is actually or probably exposed to exceeds a Tier 1 human health PCL applicable for the land use (§350.55(e)(1)). The Tier 1 human health PCLs to be used include those associated with direct or indirect exposure pathways such as inhalation, ingestion or dermal contact and would not, for example, include cross-media only exposure pathways such as soil leaching to groundwater. In this instance "applicable" land use means the actual use of the land in comparison to the definitions for residential and commercial/industrial property (§350.4(a)(74) and §350.4(a)(13), respectively) and is not contingent upon landowner consent for placement of an institutional control. A determination of whether notice for actual or probable human exposures is required should quickly commence upon receipt of written analytical laboratory results (e.g., facsimile, e-mail, U.S. Mail, or overnight delivery).

When must notification be made?

Notification must be made as soon as possible, but no later than 60 calendar days from receipt of the laboratory analyses from the performing laboratory. Also, if new information becomes available which indicates that other parties could be exposed, then those other parties and the TNRCC shall be notified as soon as possible, but no later than 14 days of the date actual or probable exposure is determined; unless the exposure determination is made based on the collection and analysis of an additional sample in which case notice must be made within 60 days from receipt of the laboratory analysis. Notification of actual or probable exposure via an exposure pathway that does not have a Tier 1 PCL is triggered when a Tier 2 or 3 PCL for that exposure pathway is exceeded.

What is the required content and form of the notice?

The person must provide a notice of availability of information that must indicate:

- Information is available regarding environmental sample analysis results for samples collected from the specific property;
- Exposure to COCs is possible given certain existing conditions and how that exposure might be occurring (e.g., drinking well water);
- The critical human health PCL(s) (Tier 1, 2, or 3);
- An explanation of what additional information is available; and
- That the notified party can receive the information by submitting a written request to an identified contact point.

It is important to remember that the trigger for notification is an actual or probable human exposure to a COC at a concentration that exceeds a Tier 1 human health PCL, as applicable to land use. However, the

person making the notification may include the Tier 2 or 3 PCLs to indicate that subsequent and more site-specific analysis of the results may conclude that there is no unacceptable exposure (assuming the Tier 2 or 3 PCLs are higher than the maximum COC concentrations for the samples collected).

The form of the notice will typically be written and delivered by mail, by hand delivery, or at a public meeting. In some instances where the name and address of a party to be notified is not known or in areas where access is unrestricted (e.g., park, playground, etc.), the person providing the notice must use and maintain legible signs for as long as the actual or probable exposure conditions exist. The sign should convey enough information so that it is clear to the people actually or probably exposed to COCs that potential exposure to chemicals may occur. An example of a sign is provided as Figure 3.

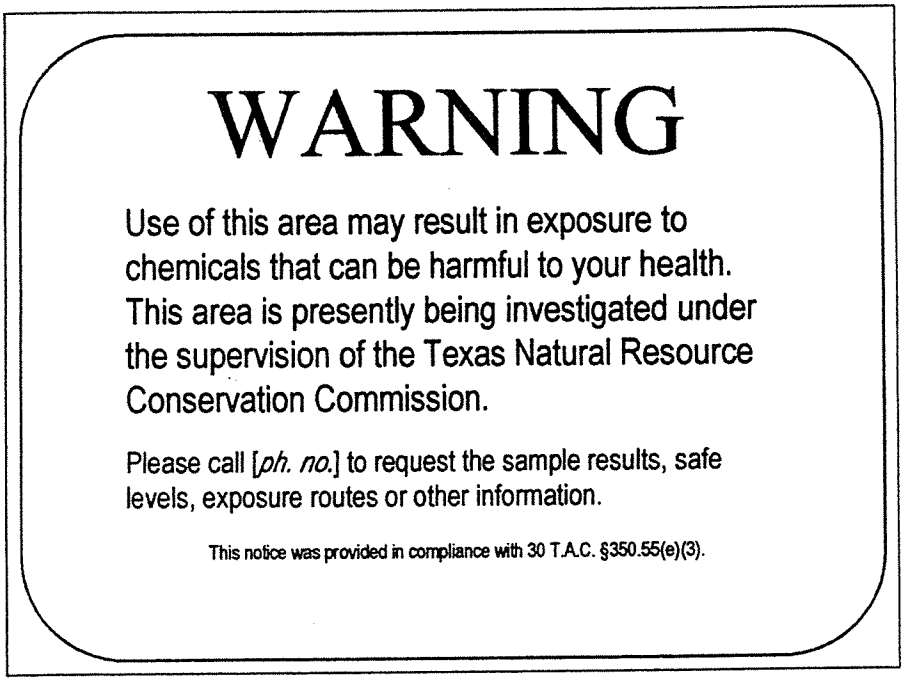

Figure 3. Example Notice Sign for Actual or Probable Human Exposure

Trigger 2. Samples are Collected from Property Owned by Someone Else

These notification requirements occur when environmental samples are collected on property that the person does not own and those results are submitted to the TNRCC. This includes on-site property such as may be the case when the person is leasing the property, and off-site property (Figure 4, on-site property and off-site properties A, B, C, E, F).

What triggers the notification requirement?

The requirements for the notification are triggered by the submission of the sample analysis result to the TNRCC, regardless of the reported concentration. If the analytical results of samples collected from another person's property will be submitted to the TNRCC as part of the APAR or within other TRRP plan or report, then the analytical results for those samples and any subsequently collected samples from that property must be made available to the owner.

Who is required to be notified?

The owner of the property that was sampled must be provided this notice. For municipal entities, notices are required to be delivered to the chief clerk or city secretary.

When must notification be made?

Provide notice no later than at the time the first plan or report that contains the sample analysis result is submitted to the TNRCC. Examples of such plans or reports are the APAR, RAP, etc.

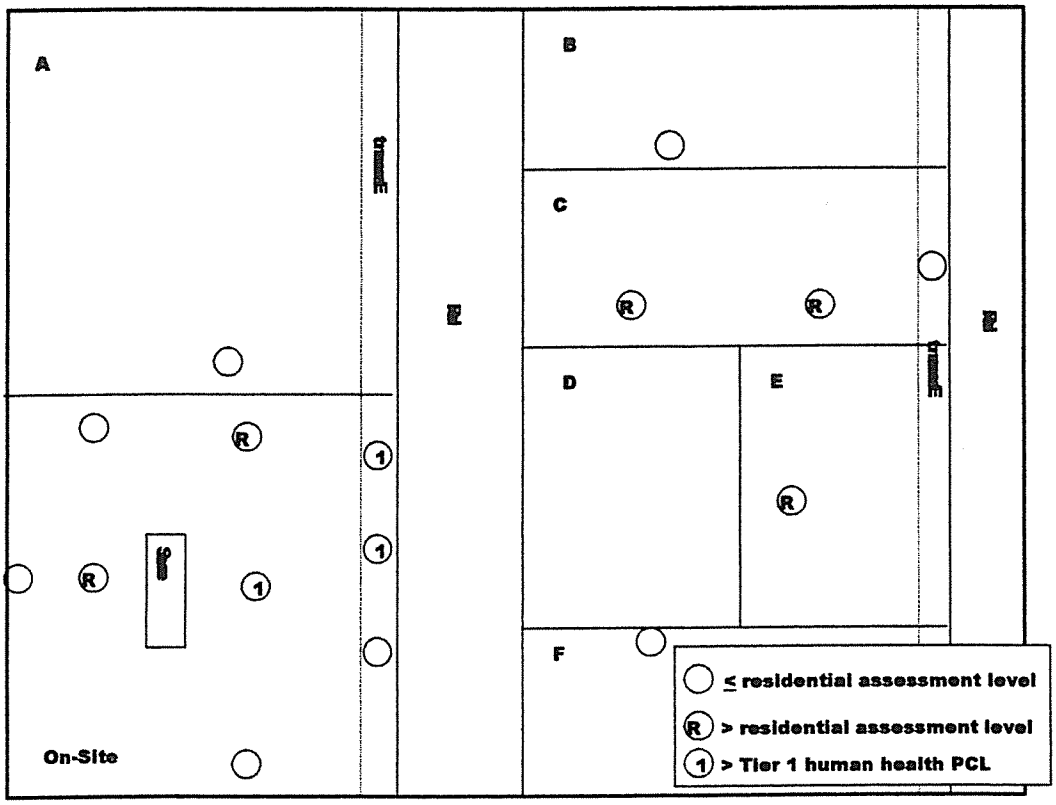

Figure 4. Map view of leased on-site property and off-site properties A – F illustrating locations of samples collected during an affected property assessment

What is the content of the required notice?

The person must provide a notice of availability of information that must indicate:

- Information is available regarding environmental sample analysis results for samples collected from the specific property;
- The critical human health PCL(s) (Tier 1, 2, or 3) for the COC assessed at the property;
- An explanation of what additional information is available; and
- That the notified party can receive the information by submitting a written request to an identified contact point.

Trigger 3. Other Information Indicating the Presence of COCs on Property Owned by Someone Else

In this situation, assessment data collected from on-site and/or off-site property indicate that a COC has affected property owned by others that was not sampled as part of the assessment (Figure 4, property D

and the road between the on-site and off-site property). A final inquiry to make when reviewing the analytical results for the samples collected during the assessment process is whether the results support such a determination. This evaluation necessarily must entail not only a consideration of the concentrations of the COCs for the on-site and off-site samples, but the other information obtained during the assessment process that provide some evidence of migratory pathways, likely routes of exposure, etc.

What triggers the notification requirement?

The submission of information to the TNRCC that indicates that it is more likely than not that a COC originating from on-site activities is present on property owned by others in excess of a residential assessment level.

Who is required to be notified?

The owner of the property affected in excess of the residential assessment level must be provided this notice. For municipal entities, notices are required to be delivered to the chief clerk or city secretary.

When must notification be made?

Provide notice no later than at the time the first plan or report containing that sample analysis result is submitted to the TNRCC. Examples of such plans or reports are the APAR, RAP, etc.

What is the required content of the notice?

The person must provide a notice of availability of information that must indicate that:

- Information is available regarding actual sample analysis results collected from other property(ies) that indicates that it is more likely than not that a COC is affecting that property;
- The critical human health PCLs (Tier 1, 2, or 3);
- An explanation of what additional information is available; and
- That the notified party can receive the information by submitting a written request to an identified contact point.

Trigger 4. Concentration of a COC within an Easement or Franchise Area Exceeds a Tier 1 Commercial/Industrial Human Health PCL

Easement or franchise areas can be located within the property owned by the person conducting the assessment or on property owned by others (Figure 4, Easements 1 and 2). Typical encumbrances to consider include municipal or private utility easements, public and private rights of way, etc.

What triggers the notification requirement?

The submission of sample analysis results or other information to the TNRCC that indicates the concentration of a COC within the easement area exceeds a Tier 1 human health PCL for the applicable land use. The Tier 1 human health PCLs to be used include those associated with direct or indirect exposure pathways such as inhalation, ingestion or dermal contact and would not, for example, include cross-media only exposure pathways such as soil leaching to groundwater. If a Tier 1 human health PCL is exceeded at any depth, then notification requirements apply (Figure 4, Easement 1). If analysis results are submitted to the TNRCC for samples collected from within an easement or franchise area, but the results do not indicate that a Tier 1 human health PCL applicable for the land use is exceeded, then notification is not triggered.

Who is required to be notified?

Notice must be provided to the easement holder/franchisee. For municipal entities, notices are required to be delivered to the chief clerk or city secretary.

When must notification be made?

Notification must be made to the easement holder/franchisee no later than at the time the first plan or report that contains the sample analysis result or other information is submitted to the TNRCC. Examples of such plans or reports are the APAR, RAP, etc.

What is the content of the required notice?

The person must provide a notice of availability of information that must indicate that:

- Information is available regarding environmental sample analysis results for samples collected from the specific easement or franchise area or regarding the sample analysis results for samples collected from other property(ies) that indicates that it is more likely than not that a COC is affecting the easement or franchise area;
- The critical PCLs (Tier 1, 2, or 3);
- An explanation of what additional information is available; and
- That the notified party can receive the information by submitting a written request to an identified contact point.

Trigger 5. An Ecological PCL is the Critical PCL

For some property, the ecological risks may result in more stringent cleanup levels than those needed for human health protection (See §350.55(a) and (b)). When this is the situation, then additional notice provisions are triggered.

What triggers the notification requirement?

Receipt of TNRCC approval for a final ecological PCL and that ecological PCL is the critical PCL for a specific property.

Who should be notified?

Leaseholders, to the extent they are known or obvious, and owners of the property where the ecological PCL is the critical PCL are required to be notified of the ecological PCLs.

When must notification be made?

The notice of availability of the ecological PCLs must be made within 30 days of TNRCC approval of the Tier 2 or 3 ecological risk assessment which contains the final ecological PCLs to be used under Remedy Standards A or B.

What is the content of the required notice?

The person must provide a notice of availability of information that must indicate that:

- Ecological PCLs are available;
- An explanation of what additional information is available; and
- That the notified party can receive the information by submitting a written request to an identified contact point.

Trigger 6. Resubmission of Previously Submitted Information for Property Owned by Someone Else

If any of the information was submitted to the TNRCC for an affected property before TRRP was applicable to that affected property and that information meets the conditions of the scenarios regarding notification triggers 2-5, then notification will be triggered if that information is included in any report or

plan that is submitted under TRRP. If such is the case, then the notification requirements mirror those for each of those situations as described previously in this document. The notification is triggered at the time that information is resubmitted to the TNRCC. For example, if sample analysis results collected from an off-site property were submitted to the TNRCC in 1998 (pre-TRRP), and then those reported concentrations are subsequently included in a table in a report submitted under TRRP, notification would be triggered for those sample analysis results. As another example, for the same case if a COC concentration map was submitted in 1998 that indicated that a COC exceeds a residential assessment level on an off-site property that was not sampled, and an updated version of the map is submitted under TRRP and the same inference can be made, then notification is triggered.

Notification in Accordance with §350.31(i)

TRRP may require the owner of land where a response action is planned or underway to disclose the fact that a response action is planned or underway prior to transfer of the property or signing of lease agreements. The landowner must inform the prospective purchaser or tenant of the property or the existing or planned response actions and of any current or future potential limitations on the use of the property until such time as the institutional control requirements of §350.31(g) are met; or until the Response Action Completion Report (RACR) is approved by the TNRCC when the requirements of §350.31(g) are not applicable. Once those institutional control requirements are met or the RACR is approved, TRRP no longer requires the landowner to make the disclosure. The rule does not require the landowner to provide any proof to the TNRCC that the disclosure has been made, but it is recommended that the landowner document and maintain proof of the disclosure.

R. WALTON SHELTON
Attorney at Law

4408 Spicewood Springs Rd., Ste. 105
P.O. Box 27367
Austin, Texas 78755-2367

Phone (512)338-0191
Fax (512)343-9194

Walt Shelton is an environmental attorney in Austin and a Part-Time Professor at Baylor University.

Mr. Shelton focuses on transactional and regulatory areas of environmental law. He has extensive experience in environmental aspects of lending, real estate, corporate, and other transactional matters. His practice frequently involves issues associated with Brownfield programs, petroleum storage tanks, remediation of contaminated properties, solid waste, and water quality. Mr. Shelton frequently acts in conjunction with environmental consultants and works with attorneys in other areas, such as real estate and corporate attorneys on sales or acquisitions.

Mr. Shelton has been teaching at Baylor Law School for over ten years. He teaches Environmental Law, State and Business Issues in Environmental Law, and Natural Resources. He also teaches Business Law in the Business School at Baylor. In addition to teaching, Mr. Shelton supervises internships at federal and state environmental agencies and directs independent studies.

Mr. Shelton received a B.A. in History, *summa cum laude*, from the University of Texas in 1977, and an M.A. in Religion, *magna cum laude*, from Baylor University in 1979. He earned his J.D. from Baylor Law School in 1989, where he graduated first in his class and was the Editor-in-Chief of the *Baylor Law Review*.

Dan Mueller, P.E.

Mr. Mueller is a registered professional engineer with over 20 years of experience in numerous areas of environmental engineering including water resources (surface and groundwater, drinking water, and NPDES), industrial waste treatment and disposal, and hazardous waste management. His experience includes surface water and groundwater resource management, drinking water system evaluation and design, wastewater design and management (including industrial process water treatment and permitting), RCRA and CERCLA driven investigations, and risk-based closure projects. During recent years site investigation and remediation work has focused on the federal Brownfields program and risk-based closure projects.

Mr. Mueller holds a B.S. in Biology, B.S. in Civil Engineering, and M.S. in Civil Engineering. He is the founding partner in Whitehead & Mueller, Inc. – an environmental engineering, consulting, and remediation firm located in Dallas, Texas – with a practice focused on serving industrial clients in areas of regulatory compliance and facility remediation/closure.

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SUSTAINABLE DEVELOPMENT
AND
ENVIRONMENTAL LAW

"STRAWBERRY FIELDS FOREVER"

MARY K. SAHS
SAHS & ASSOCIATES, P.C.

ROSS RICHARD-CROW

ENVIRONMENTAL SUPERCONFERENCE
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SUSTAINABLE DEVELOPMENT
AND
ENVIRONMENTAL LAW

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SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL LAW

I. SUSTAINABLE DEVELOPMENT: INTERSECTION OF ENVIRONMENTAL LAW AND LAND USE PLANNING

Sustainable development is where environmental law and land use planning intersect. For decades each type of regulation has developed independently, with little regard for the underlying concepts and value systems of the other. Environmental law began basically as a top-down regulatory scheme, but as the decades passed, awareness and understanding of environmental issues and conservation ideas became mainstream in modern society. Environmental law and conservation became grassroots principles as well. "Everyman" began thinking he would like to maintain his local strawberry fields forever. Thus was born the concept of sustainable development. This paper addresses a few of the current regulatory structures that further the goals that sustainable development has come to represent.

The sustainable development movement is worldwide. Communities in locations ranging from India to Argentina to Canada are espousing these concepts and implementing these ideas. *Sustainable Development Communications Network* (visited May 25, 2001) <http://www.sdcn.org>.[1] This paper focuses on the United States and more specifically on Texas.

Sustainable development means different things to different people. The definition upon which this discussion relies is from the report of the World Commission on Environment and Development (WCED) called "Our Common Future" and also known as the "Brundtland Report."

> Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT (WCED), OUR COMMON FUTURE 43 (Oxford University Press 1987). On a global scale, sustainable development focuses on improving the quality of life worldwide without increasing the use of natural resources beyond the capacity of the earth to supply them indefinitely. Another aspect of sustainable development is that resources should not be disposed of more quickly than they can be absorbed into the environment.

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[1] The Sustainable Development Communications Network (SDCN) is a group of leading civil society organizations (CSOs) seeking to accelerate the implementation of sustainable development though broader, integrated information and communications about what is known. The SDCN was established in 1998 as a result of the desire of CSOs to take advantage of their mutual interests, distinct geographies and diverse skills by collaborating on communications activities. *Sustainable Development Communications Network* (visited July 12, 2001) http://www.sdcn.org.

Conditions such as freshwater shortages, tropical forest destruction, species extinction, urban air pollution, and climate change have given rise to the interest in sustainable development. The concept of sustainable development, as this discussion will illustrate, encompasses a variety of solutions to a variety of today's environmental challenges. *Sustainable Development Communications Network* (visited May 25, 2001) <http://www.sdcn.org>.

The Center of Excellence for Sustainable Development, a project of the U.S. Department of Energy, has developed a three-pronged approach for making a community truly sustainable. Development must be based on a consideration of economic, environmental and cultural resources. This approach, which links economic considerations with environmental considerations, has been espoused by various communities that have found that traditional approaches to planning and development are creating, rather than solving, societal and environmental problems. *Center of Excellence for Sustainable Development* (visited May 25, 2001) <http.www.sustainable.doe.gov>.[2] This paper focuses on the environmental aspects of sustainable development.

The way we plan the physical layout, or land use, of our communities is fundamental to sustainability. The term "urban sprawl" is increasingly being used to describe development challenges faced by many communities. Urban sprawl increases traffic congestion and commute times, which in turn increases air pollution and requires inefficient use of energy consumption. Urban sprawl also contributes to loss of open space and habitat. Land use planning practices that are designed to combat urban sprawl are often referred to as "smart growth" or "new urbanism." Most of this type of growth has occurred during the last 50 years. *New Urban News* (visited March 25, 2001) <http://www.newurbannews.com/links.html>.[3]

While many of the decisions that contribute to sprawl have been made in the private sector and at local and state levels of government, the role of the federal government remains controversial. As discussed below, some believe that federal environmental legislation has increased sprawl and led to development having a negative effect on the environment. Equally controversial is the issue of whether the federal government has any appropriate role to play in local land use decisions.

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[2] The Center of Excellence for Sustainable Development (CESD) is run by the U.S. Department of Energy (DOE). One of the DOE's core missions is to make sure the nation has ample supplies of clean, affordable energy. Also the DOE's research and development programs are producing cutting-edge technologies that can play an integral part in a community's sustainable development efforts. The website includes a list of codes and ordinances addressing sustainable development including guidelines issued by the National League of Cities, and codes and ordinances from California, Washington, Oregon, Minnesota, Vermont, Missouri, Florida, and Colorado. *Center of Excellence for Sustainable Development* (visited July 12, 2001) <http.www.sustainable.doe.gov>.

[3] The New Urban News began publishing in 1996 in response to a growing interest in the planning and development trend called the "New Urbanism." Also known as "smart growth" and "traditional neighborhood development," the trend focuses on building mixed-use, walkable neighborhoods instead of conventional suburban subdivisions, shopping centers and office parks. *New Urban News* (visited July 12, 2001) <http://www.newurbannews.com/links.html> .

Organizations such as the Natural Resource Defense Council (NRDC) believe that the federal government has an appropriate role to play in assuring that its own actions do not subsidize or cause sprawl or interfere with local initiatives to support smart growth. In that regard, NRDC is working with federal agencies, smart-growth caucuses in the U.S. Congress, and Smart Growth America, which it helped to found, on a range of related issues. Such issues include tax policy, siting of federal facilities, and inner-city investment to promote smart growth. The NRDC also worked hard to secure environmental programs and safeguards in the Transportation Equity Act of the 21st Century and are currently working for implementation of that 1998 law consistent with smart-growth objectives. *Natural Resources Defense Council* (visited March 25, 2001) <http://www.nrdc.org/cities/smartgrowth/ char/charnv.asp>.

The following summarizes examples of recent federal legislation that has addressed various sustainable development principles.

- Brownfields: Most environmental practitioners are familiar with Brownfield development. Such development allows the reuse of abandoned and potentially contaminated properties that are often sited in prime, downtown locations. Programs for encouraging Brownfield development have been established at both the federal and state levels. Such development is considered to be sustainable because it often opens the door to revitalizing urban cores and town centers while relieving some of the pressure to develop outlying green space. Most federal brownfield bills currently under consideration focus on facilitating cleanup by awarding grants to state and local governments for site inventory and assessment, capitalizing revolving loan funds, providing technical assistance and training, and absolving innocent, prospective, and contiguous landowners of liability under the Superfund law. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.[4]

  Introduced by Sens. Lincoln Chafee, Bob Smith, Harry Reid, and Barbara Boxer with broad bipartisan support, the Brownfields Revitalization and Environmental Restoration Act (S. 350) was approved by the Senate on April 25, 2001. The bill would provide legal protection for innocent parties such as contiguous property owners and prospective purchasers, and limit federal enforcement at sites cleaned up under a state response program. It would also authorize $150 million for each of five years to inventory, investigate, assess, and clean up abandoned and underused brownfield sites, and an additional $150 million to enhance state voluntary cleanup programs. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.

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[4] The Northeast Midwest Institute is a Washington-based, private, non-profit, non-partisan research organization dedicated to economic vitality, environmental quality, and regional equity for the Northeastern and Midwestern States. *Northeast Midwest Institute-Smart Growth* (visited July 12, 2001) <http://www.nemw.org/smartgrowth.html>

Rep. Sherwood Boehlert's Recycle America's Land Act (H.R. 324) contains somewhat similar provisions. It passed the House Transportation and Infrastructure Committee in the last Congress but is still in committee. A more limited proposal, the Brownfields Cleanup Act (H.R. 1439), referred to the House Ways and Means Committee on April 4, 2001, would permanently extend the brownfield expensing provision by amending the Internal Revenue Code. This provision allows taxpayers to immediately reduce their taxable income by the cost of their eligible cleanup expenses in targeted areas, thereby encouraging brownfield redevelopment. . *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.[5]

- Preserving and Maintaining Open Space: There are numerous federal proposals to preserve open space for a host of purposes. Preserving open space is considered part of sustainable development because it helps to curb urban sprawl, sustain agricultural lands, protect watersheds, preserve natural habitat, maintain historic and cultural assets, and provide recreational opportunities. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.

  The leading federal open space legislation increases and assures annual appropriations to the Land and Water Conservation Fund (LWCF) through revenues from oil and gas exploration on the Outer Continental Shelf. The Conservation and Reinvestment Act (H.R. 701), currently in the House Committee on Resources, is almost identical to a broadly supported bill that passed the House and was favorably reported by the Senate Energy and Natural Resources Committee in the last Congress. The Act would allocate more than $3 billion annually to the Land and Water Conservation Fund at its fully authorized level of $900 million and also support wildlife restoration, historic preservation, urban forestry, and shoreline restoration and conservation for coastal states. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/ smartgrowth.html>.

  In urban areas, the Revitalizing Cities Through Parks Enhancement Act (H.R. 994) would authorize federal grants to nonprofit community groups to develop open space on municipally owned vacant lots. The bill was referred to the House Subcommittee on Housing and Community Opportunity on March 19, 2001. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.

  A final example is the Cooperative Landscape Conservation Act (H.R. 1381), which would authorize $100 million a year for fiscal years 2002 through 2007 to provide matching grants for the acquisition of permanent

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5 The Institute's brownfield page provides a more detailed review of brownfield legislative proposals.

conservation easements on private lands. "The easements would apply to land that provides important wildlife, fisheries, recreational, open space, and other conservation benefits consistent with continuing the traditional land uses of private landowners." The bill is still in committee. Executive comment was requested from the Interior Department on April 17, 2001. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/ smartgrowth.html>. See also, discussion of Conservation Easements, below.

- Creating Tax Incentives for Land Conservation: The Paul Coverdell Open Space Conservation Farmers and Ranchers Relief Act (H.R. 882) encourages private land conservation by allowing a limited tax credit for qualified conservation expenditures. The Open Space Preservation Act (H.R. 892) would exclude from gross income the sale or exchange of farmland that is under a covenant prohibiting converting the land to other uses. As of March 6, 2001 both bills were in the House Committee on Ways and Means. Other legislation (S. 312 and S. 315) exempts the federal conservation reserve payments from taxable income thereby encouraging farmers to participate in the Conservation Reserve Program. As of June 12, 2001 hearings had been held on both bills in the Senate Committee on Finance. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>. See also the discussion of Wildlife Management Tax Designation, below.

- Supporting Land Use Planning: According the Northeast Midwest Institute, 80 percent of voters believe the federal government should help local communities address the challenges associated with growth and development. The same national poll showed that 75 percent of those surveyed support federal incentives such as those included in the Community Character Act (H.R. 1433). This bill would establish a $60-million grant program for federal assistance to states to reform outdated land use planning statutes. The grant guidelines call for planning that follows the model of sustainable development: coordinating transportation, housing, and education with infrastructure investments and conserving historic, scenic, and natural resources. The bill was referred to the House Committee on Resources where Executive comment was requested from Housing and Urban Development. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.

- Encouraging Home Rehabilitation: The expense of rehabilitating aging historic homes in established communities can drive prospective homeowners to new housing developments. The rehabilitation of historic homes would be encouraged by the Historic Homeownership Assistance Act (H.R. 1172). This bill is currently in House Committee. The Act provides a 20% tax credit for qualified expenditures for restoring and renovating a property for use as a

principal residence. *Northeast Midwest Institute-Smart Growth* (visited June 1, 2001) <http://www.nemw.org/smartgrowth.html>.

Thus, despite controversy, the federal Congress is actively pursuing a variety of bills that impact the way local communities develop. See also discussion of the Clean Air Act and Clean Water Act and Smart Growth, below.

II. SMART GROWTH INITIATIVES

It is generally recognized that two main features of land use practices in the United States over the past several decades have led to haphazard, inefficient, and unsustainable urban sprawl:

- Zoning that isolates employment, shopping and services, and housing locations from each other;
- Low-density growth planning aimed at creating automobile access to increasing expanses of land.

As a result, land use planning for sustainability considers factors such as transportation, development density, energy efficiency, natural corridors and open space, and growth management. Some strategies being used to address such factors are transit-oriented design, mixed-use zoning, urban growth boundaries, infill development, greenways, brownfield redevelopment, transfer of development rights, open space protection, urban forestry, land trusts, agricultural land protection, and solar access protection. *Center of Excellence for Sustainable Development* (visited May 25, 2001) <http.www.sustainable.doe.gov>.[6] The emphasis on such strategies is often referred to as "Smart Growth" and "New Urbanism."

As mentioned above, controversy exists as to whether the federal government has a legitimate role to play in furthering the concepts of smart growth. The other side of the discussion focuses on whether federal environmental legislation has played an inadvertent role, both fostering and deterring smart growth. What follows is a discussion of the effects, both positive and negative, of the federal Clean Air Act and Clean Water Act on sustainable development, or smart growth patterns.

A. Development Patterns and Air Quality: The Clean Air Act and Sustainable Development

Zoning that isolates employment, shopping and services, and housing locations from each other and low-density growth planning aimed at creating automobile

[6] The website includes links to a wide variety of resources on mixed land use strategies, greenways, solar access protection, urban forestry, agricultural land protection, brownfield development, open space, and transfer of development credits. These resources include government guidelines, ordinances, and statutes.

access to increasing expanses of land has resulted in what has become known as "urban sprawl." One feature of urban sprawl is an increase in the use of the automobile. Between 1950 and 1990, passenger vehicle miles nationwide grew at a rate of 4.2 percent a year. In Seattle, traffic grew fivefold from 1960 to 1990. In the nation's capital the situation has been much the same—with traffic nearly tripling between 1973 and 1994. Vehicle use in California grew more than four times faster than population growth from 1970 to 1990. The end result of all of this driving is that the nation's air quality has suffered. Motor vehicle emissions are responsible for over one-quarter of the nitrogen oxide, carbon monoxide, and volatile organic compounds released into the air each year. The U.S. Environmental Protection Agency predicts that if present rates of automobile use continue, air quality gains made through technological improvements—catalytic converters, and regulation—will be eroded within the next eight years. *Smart Growth Network* (visited June 1, 2001) <http://www.smartgrowth.org>.[7]

Urban sprawl has no objective definition. Generally, however, it is characterized by the following:

_ Low population density;
_ Rapid population growth in areas adjacent to the metropolitan center;
_ Rapid development of rural, wilderness, and agricultural areas;
_ Low per capita use of public transportation;
_ High per capita vehicular use;
_ Low average occupancy per vehicle;
_ Heavy roadway congestion; and
_ Lengthy commute (time and distance).

CURTIS MOORE, NORTHEAST-MIDWEST INSTITUTE, SMART GROWTH AND THE CLEAN AIR ACT 7 (2001) <http://www.nemw.org/ smartgrowth.html>.

Many communities believe that Smart Growth is the answer to urban sprawl. It has been shown that features of Smart Growth such as compact, pedestrian and transit friendly communities can have a positive impact on air quality because they decrease the number of passenger vehicle miles. The Smart Growth Network website cites a 1990 nationwide Personal Transportation Survey for the findings that households living in city centers take 18 percent fewer trips, make on average 18 percent shorter trips, and travel 36 percent fewer miles than those living in the suburbs. This means that city center residents reduce smog-forming emissions by reducing the number of "cold starts" (starting the car when it has not been used for the past few hours), which is a major source of ozone pollution, and cutting vehicle miles traveled. *Smart Growth Network* (visited June 1, 2001) <http://www.smartgrowth.org>.

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[7] The Smart Growth Network helps create national, regional, and local coalitions to encourage metropolitan development that is environmentally smart, fiscally smart, and economically and socially smart. The Smart Growth Network is a growing coalition of developers, planners, government officials, lending institutions, community development organizations, architects, environmentalists, and community activists—all stakeholders in the development process. *Smart Growth Network* (visited July 12, 2001) http://www.smartgrowth.org.

Interestingly, the federal Clean Air Act ("CAA") has been both criticized as a cause of sprawl and praised as a useful tool to curb it. For example, some believe that by barring increases in air pollution in urban areas where the air is unhealthy, the law drives businesses and development to outlying areas. This increases sprawl and the air pollution from the increase in vehicular travel. CURTIS MOORE, NORTHEAST-MIDWEST INSTITUTE, SMART GROWTH AND THE CLEAN AIR ACT 3 (2001). See also id. at 9 –14 and 21 – 24 for a more detailed discussion of these issues.

Others argue that the Clean Air Act actually deters sprawl by providing an incentive for transit-oriented, compact development, and urban revitalization. This argument credits the conformity provisions of the CAA as a factor in spurring new types of urban development that facilitate transit use and pedestrian traffic and reduce automobile dependence. Id. at 3. See also id. 15 – 16 and 25 – 32 for a more detailed discussion of these issues.

How does the Clean Air Act encourage sprawl? The CAA places more stringent requirements on building or expanding polluting facilities within "nonattainment" areas, where the air does not meet federal standards. These are generally urban areas. Such requirements mandate elevated pollutant removal efficiencies or the installation of pollution controls. In addition, new facilities in nonattainment areas must offset emissions, often by 1.5 tons of pollutant reduction for every ton of pollutant increase. As a result, these requirements provide incentives to build new emission sources beyond urban centers, in outlying areas where the air quality still meets federal standards. By building further from the urban core, these industries encourage sprawl as the employees follow the jobs. Id. at 4, 9 – 14, and 21- 24.

Nonetheless, a study done by the Northeast-Midwest Institute found that such incentives are not actually causing polluting facilities to locate in exurban areas. This may be because the permitting process in either location is lengthy and complicated. The 1990 Clean Air Act Amendments dramatically expanded the geographical boundaries of nonattainment areas, making exurban development undertaken simply to evade Clean Air Act regulations became much more difficult. The evidence suggests that because these nonattainment areas often span great distances—in some cases spanning several counties — such move to attainment, rural areas is not occurring. Thus the Northeast-Midwest Institute concluded that the more stringent requirements for nonattainment areas do not contribute significantly to urban sprawl. Id.

According to Curtis Moore, author of the study, the Clean Air Act's conformity requirements and the conformity-related provisions of the 1991 Intermodal Surface Transportation and Efficiency Act (ISTEA) may have begun to spur "smart growth" to reduce transportation impacts on air quality. The conformity requirements compel the integration of transportation and air pollution control

strategies. This in turn creates a powerful incentive for increased local coordination; stronger regional planning across neighboring jurisdictions; and efforts to promote growth based on clean technologies. The EPA is supporting these efforts by developing land use methodologies that improve air quality and providing guidance on quantifying the air quality benefits of compact development. CURTIS MOORE, NORTHEAST-MIDWEST INSTITUTE, SMART GROWTH AND THE CLEAN AIR ACT 4 (2001). See also id. at 15 – 16 and 25 – 32.

Mr. Moore discusses ways in which smart growth measures, the Clean Air Act, and conformity provisions provide an impetus for improving the quality of life in urban communities by linking clean energy and revitalization, and strengthening regional planning. Mr. Moore sees a role for the federal government: provide guidance, research, and technical assistance to reinforce the connection between clean air regulations and smart growth. Id. at 5, 15 – 16 and 25 – 32.

As some of you may have observed in the Central Texas area, some cities are linking smart growth development with efforts to meet clean air standards. Smart growth initiatives such as promoting redevelopment and revitalization that minimize air emissions, attracting clean industries, and developing innovative transportation solutions help to meet Clean Air Act goals.[8] Communities such as Atlanta, Georgia and Portland, Oregon provide examples of regional planning authorities designed to achieve transportation conformity while encouraging smarter growth. Such regional planning authorities attempt to improve coordination across agencies and jurisdictions, engage the broader community in creating a vision for regional development, and ensure the implementation of transportation and land use plans. Id.

The Northeast-Midwest Institute sees a role for the federal government and specifically for the EPA. The Institute believes that EPA could expand its existing efforts to help state and local authorities account for the air quality benefits of local development choices in their State Implementation Plans (SIPs) and conformity determinations. The agency also could consolidate key data on population and transportation generated by metropolitan areas in order to support efforts to allow air emissions reduction credit for land use measures. Id. at 6.

B. Development and Water Quality: The Clean Water Act and Sustainable Development

It is generally recognized that because of the increase use of impervious surfaces, sprawl development greatly contributes to polluted runoff in many urban, suburban, and rural areas. The effect of this conversion is that stormwater, which prior to development would have been filtered and captured by natural landscape, is trapped above impervious surfaces, accumulates and runs off into streams, lakes, and estuaries, picking up pollutants along the way.

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[8] See the Clean Air Force website at www.cleanairforce.org.

Streambeds are widened, flooding is increased, and groundwater recharge is reduced as the amount of impervious surface within a watershed grows. According to the Smart Growth Network, the use of greater than 10 percent impervious surface within a watershed significantly impacts local water bodies. Greater than 30 percent impervious surface is quite damaging to local water bodies. The Network cites a recent National Water Quality Inventory as reporting that runoff from urban areas is the leading source of damage to estuaries and the third largest source of water quality damage to lakes. *Smart Growth Network* (visited June 1, 2001) <http://www.smartgrowth.org>.

Some argue that compact development generates higher runoff and pollutant loads within a development, thereby increasing total runoff and pollutant loads. The Smart Growth Network takes the position, however, that such increases are offset by reductions in surrounding undeveloped areas. The Network cites studies of differing growth scenarios for a South Carolina community that found that dispersed development patterns yielded 43 percent more runoff than compact patterns and resulted in higher pollutant and sediment loading. Id.

Many communities are working to promote smart growth strategies that can reduce runoff.[9] An example of a Texas municipality's attention to the issue of watershed protection and polluted runoff is the City of Austin's Watershed Protection Department Master Plan. The Plan addresses such issues as onsite stormwater detention requirements, expanded integrated pest management requirements, impervious cover limitations, parking ratios, steep slope and cut and fill regulations, water quality critical and transition zone setbacks, treatment of natural forested property, tree replacement, wastewater irrigation regulations, and water quality permits. Jim Knight, "Smart Growth Initiatives," September 10, 1999, presented at the Land Development Seminar sponsored by the Real Estate Section of the Travis County Bar Association.

The Clean Water Act and sustainable development are interrelated. In particular three of the Act's programs have the potential to promote smart growth development communities recognize opportunities to integrate water quality and smart growth goals. In general, water quality has received relatively minor consideration in most development and planning decisions when compared with the need for road construction, tax liabilities and incentives, government subsidies, land costs, and political issues. Nevertheless, the Clean Water Act's stormwater permitting program, the combined sewer overflow and sanitary sewer overflow programs, and the total maximum daily load program are having an increasing effect at the margin. JAMES M. MCELFISH, JR. AND SUSAN CASEY-LEFKOWITZ, NORTHEAST-MIDWEST INSTITUTE, SMART GROWTH AND THE CLEAN WATER ACT 3 (2001) <http://www.nemw.org/ smartgrowth.html>.

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[9] See NATURAL RESOURCES DEFENSE COUNCIL, STORMWATER STRATEGIES: COMMUNITY RESPONSES TO RUNOFF POLLUTION (1999), which highlights innovative stormwater programs from across the country.

1. Stormwater Permitting Program

The 1987 amendments to the Clean Water Act established a program requiring permitting of industrial and municipal discharges of stormwater. Phase 1 of the program regulates discharges from large municipal separate storm sewer systems (MS4s), industrial activities, and activities at large construction sites. Phase 2 regulates discharges from MS4s in smaller urbanized areas and activities at smaller construction sites.[10] Id. at 4. See also id. at 11 –32 for a detailed discussion of this issue.

The stormwater permit program largely affects development on a site-specific and technical basis. Its requirements have minimal influence on the location of new development. The design and financing techniques of stormwater systems do provide some opportunities to promote smart growth, infill development, and green infrastructure such as the retention of open space and maintenance of natural drainage ways. On the other hand, the stormwater program does not stimulate sprawl. For example, although the Phase 1 MS4 program increases operations and maintenance costs for some urban areas, the increase is not so great as to disadvantage such areas in comparison with new development on the exurban fringe. Likewise the Phase 2 MS4 program does not appear likely to promote a preference for development outside of the urbanized areas subject to the program. This is because the program provides so much flexibility and so few minimum requirements. Because the construction site stormwater program applies both inside and outside urbanized areas, it does not create an incentive to construct in exurban areas to avoid regulation. Id.

The Northeast-Midwest Institute provides some recommendations for utilizing the Clean Water Act stormwater permitting program to encourage smart growth. For example, the Institute suggests that States promote integrating multiple jurisdictions under general stormwater permit applications, making planning and management of both growth and stormwater more efficient. It would also create a forum for discussion of regional development issues. The Institute also recommends that the U.S. Environmental Protection Agency (EPA) allow State and local governments to link stormwater permits to water quality objectives. This would could lend support to communities' efforts to influence the location of development. Id.

The Institute also suggests that States and EPA could encourage municipalities to improve stormwater management on a watershed basis through smart growth measures, such as transferable development rights, mixed use, and compact development. This could be done by offering such municipalities some relief from requirements to implement some stormwater control measures in exchange for such an improvement. Id.

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[10] On September 14, 1998, the Texas Natural Resource Conservation Commission (TNRCC) took charge of the National Pollutant Discharge Elimination System (NPDES) program, formerly administered by the U.S. Environmental Protection Agency. The program, which is called the TPDES (Texas National Pollutant Discharge Elimination System) program, includes stormwater regulation.

Other recommendations include steps similar to those taken by the City of Austin in its Watershed Protection Department Master Plan. They include land use ordinances limiting impervious cover, resource protection zoning that restricts incompatible land uses and limits the scale of development to prevent threats to water quality. Id. See also Jim Knight, "Smart Growth Initiatives," September 10, 1999 at p. 2.

2. Combined Sewer Overflow and Sanitary Sewer Overflow Programs

In addition to the stormwater permitting program, the combined sewer overflow and sanitary sewer overflow programs can have an impact on sustainable development. Years ago the sewer collection lines constructed in municipal sewer systems were designed to handle both sanitary sewage and stormwater runoff from streets, roofs, and buildings. During periods of rainfall, untreated sewage is discharged from the systems. This is known as combined sewer overflows (CSOs). When stormwater, groundwater, and other waters enter sanitary sewer collection lines, these sewer lines then discharge in a similar manner. This discharge is called sanitary sewer overflows (SSOs). JAMES M. MCELFISH, JR. AND SUSAN CASEY-LEFKOWITZ, NORTHEAST-MIDWEST INSTITUTE, SMART GROWTH AND THE CLEAN WATER ACT 9 (2001). See also id. at 33 – 50 for a detailed discussion of this issue.

The CSO/SSO programs can be used as leverage to support smart growth, while also ensuring that smart growth efforts reduce sewer related water pollution problems. Under EPA regulations, systems with CSOs were to implement nine minimum controls by January 1, 1997. Sanitary sewer overflows SSOs are illegal under the Clean Water Act. The EPA has brought enforcement actions focusing on both problems. The relationship between the CSO/SSO programs and smart growth development is primarily financial. One would suspect that the high cost of CSO/SSO repairs in aging neighborhoods might discourage investments in those neighborhoods, thereby encouraging development in outlying areas. The Northeast-Midwest Institute found, however, that urban sprawl already was well advanced in many cities before CSO/SSO repairs caused fees and taxes to rise. The study also found that such repairs have made core urban areas more attractive to redevelopment and infill in those instances where the repairs were made in conjunction with revitalization of waterfront revitalization or riparian restoration. Id. at 6 and 33 - 50.

In its report, the Northeast-Midwest Institute made a number of recommendations for utilizing the Clean Water Act CSO/SSO program to encourage smart growth. Most recommendations involve focusing funding for CSO/SSO rehabilitation on urban areas, especially those restoring waterfronts as part of downtown revitalization. This could be accomplished through setting a priority for such projects for the State Revolving Load Fund and using such projects as Supplemental Environmental Projects. Id.

3. Total Daily Maximum Load Program

In addition to the stormwater permitting program and the combined sewer overflow and sanitary sewer overflow programs, the Total Daily Maximum Load program can have an impact on sustainable development. Section 303(d) of the Clean Water Act requires states to identify polluted waters and calculate the total maximum daily load (TMDL) of specific pollutants that each stream segment can absorb and still meet water quality standards. Through this process, allowable limits for these pollutants are calculated and pollutant loads are distributed among discharge sources. Point and nonpoint source pollution are considered when setting the maximum daily loads. Id. at 7 and 51 - 62.

The primary relationship between the TMDL program and smart growth or sustainable development is controlling nonpoint pollution through better control of stormwater discharges. Methods include reducing the quantity and peak flow of stormwater, and retaining more land in open space and buffers Additionally, sustainable development land use practices normally include planning for future growth to evaluate the patterns of development that will protect water quality and those that will not. Id.

James McElfish and Susan Casey-Lefkowitz of the Northeast-Midwest Institute make several recommendations for using the TDML Program to encourage sustainable development. For example, they suggest that states and municipalities could create opportunities for incorporating growth management in allowance for future loadings. This could be done by examining the water quality effects of potential development in a particular watershed or region, and allocating pollutant loads among present and future users in a way that discourages urban sprawl. Likewise, States and the EPA could explicitly recognize smart growth techniques as providing reasonable assurances sufficient to satisfy allocations for future growth or to reduce the margin of safety needed to account for uncertainty. Id. at 8 and 51 - 62.

Another suggestion is that EPA should encourage States to prioritize waterways where infill, redevelopment, and other smart growth techniques are in place or can be put into place relatively quickly. This would afford an opportunity for regulators to promote priority schemes that give preference to developing TMDLs that will serve a locally oriented smart growth agenda while improving water quality. Likewise, regulators could couple TMDL considerations when deciding whether to grant permits that facilitate growth and development, such as wastewater facility expansion permits, site plan approvals, or water withdrawal permits, particularly in impaired watersheds. Id.

A final recommendation is for States to promote conservation development techniques by encouraging incorporation of river corridor protection criteria,

buffers, best management practices, operating standards, and other water quality requirements into local ordinances. Id.

As some of you may have observed in Austin, Texas, cities can link smart growth development with efforts to meet Clean Water Act goals. An example of urban sustainable development in Texas is the City of Austin's Smart Growth Initiative. In January 1995, the City appointed the Citizens' Planning Committee, which made 12 recommendations for growth strategies for Austin. The Smart Growth Initiative was launched in February 1998. Smart Growth Austin has evolved to assist the City meet three broad growth goals:

- "Determine how and where Austin grows: Smart Growth Zones are defined to determine "where" development ought to occur. Neighborhood planning and pedestrian and transit-oriented design principles help determine "how" development ought to occur.

- Improve the quality of life: Promote development that restores community vitality to the urban core, protects the character of existing neighborhoods, preserves environmental quality and provides alternatives to the automobile.

- Enhance the tax base: Through strategic investments and regional partnerships, focus capital expenditures to enhance Austin's tax base."

CITY OF AUSTIN, SMART GROWTH INITIATIVE: MATRIX APPLICATION PACKET 2 (Jan. 6, 1999, rev'd. July 5, 2000). The City developed a Smart Growth Criteria Matrix to assist it in analyzing development proposals within the Desired Development Zone. This tool allows the City to measure how well the project accomplishes the City's Smart Growth goals. If it significantly advances the Initiative, financial incentives may be provided. Id.

Underlying much of the City's Initiative is the value that Austin has traditionally placed on its springs, rivers, and lakes. In meeting the Smart Growth goals of improving the quality of life and determining where and how development ought to occur, watershed protection ranks high in priority. Watershed protection in Austin includes onsite stormwater runoff detention, drainage easements, integrated pest management, impervious cover limitations, parking ratios, and designation of zones in which development is preferred, based on watershed protection principles. Jim Knight, "Smart Growth Initiatives," September 10, 1999 at p. 3.

Thus land use planning for sustainability, sometimes called Smart Growth or the New Urbanism, illustrates the interface between land use planning and environmental law. Such initiatives consider factors such as transportation, development density, energy efficiency, natural corridors and open space, and growth management. They seek to address issues such as urban sprawl,

growing traffic congestion, the absence of a sense of place, and air pollution resulting from auto dependence.

III. DEVELOPMENT AND OPEN SPACE: CONSERVATION EASEMENTS

By Ross Richard-Crow, Esq.

How can development be a threat when we have so much habitat and farmland? The United States has over 400 million acres—20 percent of our total land base—in agricultural production and more than 600 million acres of forest and wetland. The fact is, however, that as urban areas expand and development moves to the edges of the metropolitan areas, it begins to compete. During the past half-century development has been winning the battle. According to the American Farmland Trust (AFT), from 1982 to 1992, 400,000 acres of prime agricultural land, or 45.7 acres per hour per day, was lost to suburban and urban development. The US Fish and Wildlife service reports that urban and suburban development accounted for 21 percent of total net wetland losses from 1985 to 1995. *Smart Growth Network* (visited June 1, 2001) <http://www.smartgrowth.org>.

The environment is adversely impacted by the loss of open spaces. First, many of the natural landscape features—forests, wetlands, etc.—are lost. Second, the functions that these features provide—runoff control, wildlife migration, etc.—are lost. Additionally, when farmland is lost to development, the use of lesser quality soils for production is hastened; thereby heightening conversion of forest and wetlands for crop production; and increasing dependency on irrigation, fertilizers and chemicals. Id.

Increasingly open space is being preserved through conservation easements. Depending on your perspective, conservation easements are either an excellent means for private landowners to preserve land for future generations or a threat to development efforts. Public agencies, land trusts and other conservation groups laud the virtues of conservation easements, while developers have at times sought to restrict their use. Generally, however, conservation easements are widely accepted in Texas and throughout the United States as critical to conservation efforts and recently have even been promoted by the Office of the Governor in Texas.[11]

Most states allow for the creation of conservation easements. In Texas and 19 other states, private landowners can restrict development and use of their property under the Uniform Conservation Easement Act. In Texas it is codified at TEX. NAT. RES. CODE ANN. §§ 183.001 et seq. (Vernon 2000). According to the

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[11] An official website for former Governor George W. Bush stated that "With 97 percent of Texas land in private ownership, private landowners play a significant role in ensuring the success of natural resource conservation efforts across Texas." As a primary example of a private landowner's role, the site discusses the donation of a conservation easement by the Ayers family "of 4,700 acres to The Nature Conservancy of Texas to help protect the Barton Creek and Edwards Aquifer watersheds." (visited 4/13/01) http://www.governor.state.tx.us/TexasStars/stewards.html.

Land Trust Alliance, in the United States, Texas appears to be midrange in the number of acres set aside, but the ratio of conservation easement land to land area is relatively low.[12] The relatively small use of conservation easements in Texas is due in part to the fact that Texas, compared to many other states, still has a considerable amount of open space. Also, some Texas property owners have been reluctant to put any restrictions on the use of their property. Conservation easements are growing in popularity, however, in part because of tax benefits and increasing public awareness regarding their use.

A conservation easement, besides fulfilling a landowner's desire to preserve her property in a natural condition for generations to come, also provides several tax benefits. Conservation easements can result in savings on income tax, estate tax and property tax, which is often an important consideration in their creation. A discussion of tax consequences is beyond the scope of this paper.[13]

A conservation easement is a voluntary legal agreement by which a landowner restricts all or a portion of their property from certain future development, usually in perpetuity. All restrictions are negotiated by the landowner and none in particular are required. The restrictions are enforced by a qualified conservation group or governmental entity. A property must have significant conservation or natural habitat value to be protected by a conservation easement.

The conservation easement is an interest or right in property, which is less than a full or fee simple interest. The easement is written in deed form and filed with the official recorder of deeds. Landowners typically seek the advice of an attorney in drafting conservation easements and there are a number of attorneys in Texas who have developed expertise in this area. The Texas Parks and Wildlife Department publishes, "Conservation Easements: A Guide for Texas Landowners" which provides an excellent overview of conservation easements in Texas and their advantages to landowners.[14]

The Texas Natural Resources Code defines a conservation easement as follows:

> [A] non-possessory interest of a holder in real property that imposes limitations or affirmative obligations designed to:
>
> (A) retain or protect natural, scenic, or open-space values of real property or assure its availability

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[12] The actual number of conservation easements in Texas is even smaller relative to other states. Large ranches in West Texas comprise a significant portion of the acreage in Texas having conservation easements.

[13] But see, "Landowner Considerations Regarding Conservation Easements," by Thomas R. Kelsey, presented at the Fall Seminar 2000 sponsored by The Bexar Land Trust and The Real Estate Council of San Antonio, October 25, 2000; and "Conservation Easements and Federal Taxes," by A. Ryland Howard, presented at the 17th Annual Nonprofit Organizations institute, January 26 – 28, 2000.

[14] TEXAS PARKS AND WILDLIFE DEPARTMENT, CONSERVATION EASEMENTS: A GUIDE FOR TEXAS LANDOWNERS (2000).

for agricultural, forest, recreational, or open-space use;
(B) protect natural resources;
(C) maintain or enhance air or water quality; or
(D) preserve the historical, architectural, archeological, or cultural aspects of real property.

TEXAS UNIFORM CONSERVATION EASEMENT ACT, TEX. NAT. RES. CODE ANN. §183.001 (Vernon 2000).

The agreement must designate a holder of the easement. Id. at §183.001(2). The holder must be a governmental unit or qualified nonprofit organization. Id. The holder makes certain that the provisions of the easement are enforced. Under the uniform act adopted by Texas a third party qualified to be a holder and given the right of enforcement in the conservation easement can also enforce the provisions of the Act. Id. at §183.001(3). A conservation easement, like any other easement, may be transferred. Id. at §183.002. A conservation easement is for unlimited duration unless stated otherwise. Id. A conservation easement must be created in writing, acknowledged and recorded in the deed of records. Id. Although a conservation easement is created in perpetuity, it may be terminated. Termination, however, carries with it tax consequences. A conservation easement is valid even if the easement would not normally be valid under Texas common law. Id. at § 183.004.

What is happening in Texas with conservation easements?

Conservation easements, though gaining in popularity, have not seen as much use in Texas as in some other regions of the country. There may be several reasons for this. With the large expanses of open space in Texas, development pressures have not been as intense in Texas as in regions such as the Northeast United States or California. Also, many Texans have an independent mindset regarding the use of their property and have not always readily embraced conservation values. Interestingly, however, it has been several traditional Texas ranching families that have turned to conservation easements to preserve from development, the ranch lands that their families have grown to love. One of the considerations is estate taxes, which have forced some families to break up large estates for development purposes. Families wishing to significantly lower estate taxes and preserve the use of the property for future generations have found that conservation easements are an effective mechanism for accomplishing this purpose.

The big picture in Texas

About two-thirds of Texas counties have some acreage protected under conservation easements, ranging from as few as 26 acres to as many as 65,229 acres. Conservation easements are showing increasing popularity. Texas property protected by conservation easements increased from 116,161 acres in 1999 to 156,226 acres in 2000. Approximately 100,000, or close to two-thirds of the 156,226 acres protected by conservation easements in Texas, are in 3 west Texas counties. In Jeff Davis County, 65,229 acres are protected by conservation easements. Culberson County and Val Verde County have 20,506 acres and 14,157 acres in conservation easements, respectively. This apparently is due to the donation of conservation easements on some larger ranches in west Texas. Other Texas counties with many acres protected by conservation easements are Anderson with 5,297 acres, Travis with 4,830 acres, Jackson with 4,823 acres, Grayson with 4,066 acres, and Bandera with 3,969 acres. Several other Texas counties have two to three thousand acres covered by conservation easements.

Public entities use of conservation easements

As a method of protecting sensitive watershed areas and drinking water resources from possible degradation due to development, the City of Austin became the first Texas municipality to purchase conservation easements. In May 1998, Austin voters approved Proposition 2, a smart growth initiative authorizing a $65 million bond issue for the purchase of a minimum of 15,000 acres of land and/or conservation easements. The purpose of the initiative is to provide watershed protection for both Barton Springs and the Edwards Aquifer, a primary source of water for central Texas. The Greater Austin Chamber of Commerce and Save Our Springs, an environmental organization dedicated to protecting Barton Springs, formed an unprecedented alliance, working together for the passage of Proposition 2. This effort proved that developers and conservationists are not necessarily at odds regarding the use of conservation easements. Measures such as Austin's Proposition 2 are part of a growing national trend. In 2000, voters approved 174 of 209 approved ballot measures to fund open space providing $7.5 billion for land conservation.[15]

On the other hand, one conservation easement donation made in 1986 has been the source of considerable controversy involving litigation in federal courts and legislative battles on the federal and state level. In December 1986, the Fish and Wildlife Service (FWS) accepted the donation of a conservation easement of 3,802 acres from the Little Sandy Hunting and Fishing Club. Under the conservation easement, the estate burdened by the easement could still continue to be used for a hunting and fishing lease, but further development was restricted. The Sabine River Authority (SRA) and water developers in Texas

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[15] LAND TRUST ALLIANCE, VOTERS INVEST IN OPEN SPACES: 2000 REFERENDA RESULTS (March 2001) (visited April 27, 2001) http://www.lta.org/publicpolicy/referenda2000.htm.

view this conservation easement as a deliberate measure to block the development of a reservoir site on the Sabine River to be called Waters Bluff. Conservation organizations such as Friends of the Sabine argue that repeated studies since the early seventies had identified this area as containing the best and largest old-growth bottomland hardwood forest and that FWS had identified Little Sandy Hunting and Fishing Club as a Priority 1 site. Conservationists state that FWS had already been discussing Little Sandy as a potential site for a conservation easement when SRA approved the site as a potential reservoir site.

Organizations and governmental bodies at the local, state, and federal level expressed frustration that FWS did not consult with them when preparing a draft environmental assessment (DEA) for the Little Sandy Hunting and Fishing Club conservation easement site. Among those expressing this concern were the Texas Water Development Board, the Texas Water Commission, the Bureau of Reclamation, the Army Corps of Engineers, the Interstate Conference on Water Policy, Water Resources Congress, Western States Water Council, National Water Resources Association, Texas Society of Professional Engineers, and various local organizations. Though several of these organizations expressed agreement with FWS' conservation goals, some stated their belief that FWS had not properly considered alternatives. The Bureau of Reclamation, for example, expressed the opinion that FWS' conservation goals could still be met by constructing the reservoir in a manner that created habitat for migratory birds. On SRA's request FWS received written comments and held public hearings prior to the donation of the easement, however, this did not result in any change in the various parties' position on the issue.

After the donation of the easement to FWS, SRA authority filed suit against FWS, claiming that in creating the refuge, FWS had not followed procedures required under the National Environmental Policy Act,[16] the Fish and Wildlife Conservation Act,[17] and the Administrative Procedures Act.[18] The federal district court held that FWS had complied and denied SRA any relief. The Fifth Circuit upheld the ruling and the Supreme Court refused any further appeal.

The SRA and others sought federal legislation to overturn the easement, which was introduced by Congressman Ralph Hall (D-TX) in 1987 and 1989. The Texas Parks and Wildlife Department and numerous conservation and sportsmen's organization in Texas opposed the bill. The bill, which faced strong opposition from national conservationists concerned about the precedent such legislation would set, never reached the House Floor.

As long as the Little Sandy conservation easement remains in place the Water Bluffs reservoir cannot be built. Since the federal government holds the conservation easement, the SRA cannot condemn the land. Water developers in

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16 National Environmental Policy Act of 1967, 42 U.S.C. §§ 4321 et seq. (2000).
17 Fish and Wildlife Conservation Act of 1980, 16 U.S.C. § 2901 et seq. (2000).
18 Administrative Procedures Act, 5 U.S.C. § 551 et seq. (2000).

Texas are concerned that persons who want to block proposed reservoir sites will donate a conservation easement to the federal government on land within the proposed reservoir site thus blocking the entire project. Water developers believe that many potential reservoir sites in east Texas with bottomland hardwoods similar to the Little Sandy area could be thwarted in this manner. The bottomland hardwoods in east Texas are habitat for migratory birds and water developers are concerned that the federal government would accept conservation easements in these potential reservoir areas pursuant to the federal Migratory Bird Conservation Act,[19] the National Wildlife Refuge System Administration Act, the Migratory Bird Hunting Stamp Act and the Emergency Wetlands Resources Act. The SRA has stated that twelve proposed reservoir sites which are also identified by the Bottomland Hardwood Preservation Program as prospective conservation areas are given a high priority rating, and represent 70% of the reservoir yield available for Texas' and its citizens' future.

During the recent session of the Texas legislature, water developers sought legislation that would require consent from the governor's office for any federal acquisition of state land under the Migratory Bird Act and for any conservation easement. Senate Bill 1643, sponsored by Senator David Bernsen, would have amended Section 83.004 of the Parks and Wildlife Code to require approval from the governor's office before the United States could acquire an area of land in Texas for a migratory bird reservation. The governor could delegate his responsibilities in this regard "to a state agency or other persons." Section 83.004 of the Parks and Wildlife Code does not directly concern conservation easements, but exists to give state consent to acquisitions by the federal government within the state for purposes of the Migratory Bird Act and is similar to statutes in other states.

Senate Bill 1643, however, also sought to amend Section 183.001 et seq. of the Texas Natural Resources Code, the Texas statute regarding conservation easements. The proposed language would require review and approval by the governor before an easement could be accepted by the holder. Similar to the amendment of Park and Wildlife Code, the governor could delegate his responsibilities under this section to a state agency or other person.

Opponents of the legislation complained that the amendments contained in Senate Bill 1643 would unnecessarily burden and complicate the conservation easement process in Texas and further argued that such a provision may be unconstitutional. Ultimately the legislation was defeated, but it is expected to resurface in future legislative sessions. Supporters of the legislation intend to introduce a revised version of the bill next session that will greatly narrow the scope of the legislation. The revised version would only require consent from the governor for a conservation easement when the easement is donated to the federal government and may impact a reservoir site.

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[19] Migratory Bird Conservation Act, 16 U.S.C. § 715 et seq. (2000).

IV. WILDLIFE MANAGEMENT TAX DESIGNATIONS

Another tax incentive exists for maintaining open spaces in Texas. In 1995 the Texas Constitution was amended to allow, for property tax valuation purposes, agricultural appraisal for land used to manage wildlife. Texas voters approved Proposition 11, which amended Article VIII, Section 1-d-1 of the Texas Constitution. This amendment was implemented by House Bill 1358, which makes wildlife management an agricultural use that qualifies the land for agricultural appraisal. COMPTROLLER OF PUBLIC ACCOUNTS, TEXAS PROPERTY TAX: GUIDELINES FOR QUALIFICATION OF AGRICULTURAL LAND IN WILDLIFE MANAGEMENT USE (1996) at p. 1 ("GUIDELINES").

Under H.B. 1358, which amended Chapter 23 of the Tax Code, the Comptroller, with the assistance of the Texas Parks and Wildlife Department (TPWD) and the Texas Agricultural Extension Service, issued guidelines to county appraisal districts on qualifying land used to manage wildlife for agricultural appraisal. Subchapter D controls the requirements for qualifying land for agricultural appraisal and also instructs county appraisal districts on how to appraise qualified agricultural land. Land used for wildlife management must first meet all the legal requirements of land qualified for agricultural appraisal.[20] Then it must meet wildlife management requirements as discussed below. TEX. TAX CODE ANN., Chapter 23, Subchapter D (Vernon 1996). GUIDELINES at p. 1.

Thus after passage of H.B. 1358 and Proposition 11, land on which the owner engages in wildlife management and which meets other requirements for agricultural appraisal is qualified for agricultural appraisal and is technically in agricultural use. This paper refers to agricultural land used for wildlife management as land in wildlife management use.

The Texas Tax Code, Section 23.51(1) defines qualified agricultural land as:

> Land that is currently and principally devoted to agricultural use to the degree of intensity typical for the area and has been used for agriculture or timber[21] for at least five of the preceding seven years.

TEX. TAX CODE ANN § 23.51(1)(Vernon 1996). Section 23.51(2), Tax Code, includes wildlife management in the definition of agricultural uses of land. Id. at § 23.51(2). Section 23.51(7), defines wildlife management as follows:

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[20] The general requirements of land qualified for agricultural appraisal, however, are outside the scope of this paper. The Comptroller publishes the "Manual for the Appraisal of Agricultural Land" that discusses in detail the qualification of land for agricultural appraisal, the rollback tax penalty for change of use and appraisal of agricultural land. A copy can be obtained by writing to the Comptroller, Property Tax Division, P.O. Box 13528, Austin, Texas 78711-3528. GUIDELINES at 1, note 1.

[21] Land qualified for timber appraisal is not eligible for wildlife management use. See discussion in GUIDELINES at 3.

> Actively using land that at the time the wildlife management began was appraised as qualified open-space land under this subchapter in at least three of the following ways to propagate a sustaining breeding, migrating, or wintering population of indigenous wild animals for human use, including food, medicine, or recreation.
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> (a) habitat control
> (b) erosion control
> (c) predator control
> (d) providing supplemental supplies of water
> (e) providing supplemental supplies of food
> (f) providing shelters, and
> (g) making census counts to determine population.

Id. at § 23.51(7).

The interim Guidelines for Qualification of Agricultural Land in Wildlife Management Use issued by the Texas Comptroller of Public Accounts in 1996 discuss the requirements that land must meet to qualify for wildlife management use, how to value this land, and each of the seven wildlife management activities mandated by state law. COMPTROLLER OF PUBLIC ACCOUNTS, TEXAS PROPERTY TAX: GUIDELINES FOR QUALIFICATION OF AGRICULTURAL LAND IN WILDLIFE MANAGEMENT USE (1996) ("GUIDELINES").

A. Qualified and Appraised as Agricultural Land

As mentioned previously, to qualify for agricultural appraisal under the wildlife management use, land must first be qualified for agricultural appraisal under Chapter 23, Subchapter D, Tax Code (also called 1-d-1 or open space agricultural appraisal). During the year before the owner changes to the wildlife management use, the land must have been qualified and appraised as agricultural land. GUIDELINES at p. 3.

There are two exceptions. The law limits wildlife management use to land qualified under Subchapter D of Chapter 23. Because timberland is qualified under Tax Code, Chapter 23, Subchapter E, land qualified for timber appraisal is not eligible to qualify for wildlife management use. Similarly, land qualified for agricultural appraisal under Article VIII, Section 1-d, Texas Constitution and Chapter 23, Subchapter C, Tax Code, (also called 1-d agricultural appraisal) is not eligible for wildlife management use. GUIDELINES at p. 3.

1. The Primary Use Requirement

Because the law requires agriculture to be the primary use of the land in order to qualify for agricultural appraisal, land in wildlife management use must likewise be the primary use. For example, land devoted to wildlife management can be used as a residence for the owner, but the land will not qualify if residential use and not wildlife management is the land's primary use. This primary use requirement has become the focus of controversy between taxing authorities that do not want to see their tax roles shrink and developers who see the wildlife management use designation as a way to decrease the cost of their development. See discussion below. GUIDELINES at p. 4.

In making the designation, a chief appraiser considers the following issues:

- Is the owner implementing an active, written, wildlife management plan that shows the owner is engaging in activities necessary to preserve a sustaining breeding population on the land?
- Do the owner's management practices emphasize managing the population to ensure its continued existence over another use of the land?
- Has the owner engaged in the wildlife management practices necessary to sustain and encourage the population?
- Are there improvements appropriate and necessary to control or sustain the wildlife population?

GUIDELINES at pp. 3-4.

An important consideration is that an owner may use land for purposes that are secondary to wildlife management if the secondary use is compatible. For example, an owner may engage in wildlife management and also operate a business in which bird watchers stay on the land overnight and watch for birds during the day (known as a bird and breakfast operation). GUIDELINES at p. 4.

The Guidelines suggest that an owner develop a Wildlife and Habitat Management Plan as clear evidence that the owner's use of the land is primarily for wildlife management. Such a Plan should provide information on the property's history and current use, establish the landowner's goals for the property, and provide a set of activities designed to integrate wildlife and habitat improvement. Although an owner may formulate her own Plan, assistance or review is available from the Texas Parks and Wildlife Department, the Texas Agricultural Extension Service, the United States Department of Agriculture's Natural Resource Conservation Service, the Texas Forest Service, and other qualified wildlife biologists. GUIDELINES at p. 7.

An adequate Plan is likely to include elements of all seven listed wildlife management activities designed to overcome deficiencies that limit wildlife or harm their habitats. The wildlife management activities should be practiced

routinely or consistently as part of an overall habitat management plan. In addition, some activities that are appropriate for certain regions of Texas would be inappropriate in others. The Texas Parks and Wildlife Department has developed regional wildlife and habitat management plans, listing the activities appropriate to Texas' ten ecological regions. Id.

2. The Degree of Intensity Requirement

Wildlife management land usually requires a management of the land that encourages long-term maintenance of the wildlife population. This degree of intensity standard must be met for at least three of the seven wildlife management activities authorized by Texas Tax Code § 23.51(7). In evaluating whether the degree of intensity of use is adequate, the chief appraiser considers such issues as the following:

- Is fencing typical in the area for managing the target wildlife population, and what is the typical population size?
- How many of the following activities are typical in the area: habitat management, predator management, erosion control, providing supplemental supplies of food or water, providing shelter and engaging in census counts?

The Texas Parks and Wildlife Department has developed regional wildlife management plans detailing specific management activities appropriate for each ecological area. GUIDELINES at p. 5.

3. The Historical Use Requirement

Land must have qualified for 1-d-1 agricultural use and been appraised as 1-d-1 agricultural use in the year before the owner changes its use to wildlife management. Consequently, the time period test to determine if the land has been used for agriculture for five of the preceding seven years is usually not necessary. GUIDELINES at p. 5.

B. Qualified for Wildlife Management Use

1. Sustaining Breeding, Migrating, Or Wintering Population Of Indigenous Wild Animals Requirement

Qualified wildlife management use under Texas Tax Code § 23.51(7) requires that the land must be used to propagate a sustaining breeding, migrating or wintering population of indigenous wild animals. TEX. TAX CODE ANN § 23.51(7)(Vernon 1996).

The Guidelines define "indigenous wild animals" as those native to Texas or that naturally migrate through Texas and that are living naturally in the area. The

Texas Parks and Wildlife Department will determine whether an animal species is considered indigenous. GUIDELINES at p. 3.

"A sustaining breeding population" is defined by the Guidelines as "a group of indigenous wild animals that is large enough to live independently over several generations." The population will not die out because it produces enough animals to continue as a viable group. The Guidelines further define "a migrating population of indigenous wild animals" as "a group of animals moving between seasonal ranges." "A wintering population of indigenous wild animals is a group of animals living on its winter range." Id.

2. Produced For Human Use Requirement

The law requires an owner to propagate the wildlife population for human use, such as food, medicine or recreation. TEX. TAX CODE ANN § 23.51(1)(Vernon 1996). Food and medicine uses result in a product and require active participation. A recreational use may include any type of use for pleasure or sport, such as bird watching, hiking, hunting, and photography. Recreational use is defined so broadly that it includes the owner's passive enjoyment in owning the land and managing it for wildlife. GUIDELINES at pp. 3-4.

3. Listed Wildlife Management Activities Requirement

Under the law, an owner must perform at least three of seven listed wildlife management activities on the land. TEX. TAX CODE ANN § 23.51(1)(Vernon 1996). The Guidelines define these activities as follows:

- Habitat Control (Habitat Management): actively using the land to create or promote an environment that is beneficial to wildlife on the land.
- Erosion Control: actively reducing or keeping soil erosion to a minimum for the benefit of wildlife.
- Predator Control (Predator Management): Managing the population of predators to benefit the owner's target wildlife population.
- Providing Supplemental Supplies of Water: Actively providing water in addition to the natural sources.
- Providing Supplemental Supplies of Food: Providing food or nutrition in addition to the level naturally produced on the land.
- Providing Shelter: Actively creating or maintaining vegetation or artificial structures that provide shelter from the weather, nesting and breeding sites or "escape cover" from enemies.
- Making Census Counts to Determine Population: Undertaking periodic surveys and inventories to determine the number, composition or other relevant information about a wildlife population to measure if the current wildlife management practices are serving the targeted species.

GUIDELINES at p. 4.

The Guidelines provide a detailed explanation of the kinds of practices that chief appraisers should examine to determine if property owners are satisfying the law's requirements with regard to the wildlife management activities. See GUIDELINES at pp. 9-15. Some of the required activities may require permits from federal, state or local governments. For example, before improving a wetland or controlling grackles or cowbirds, an owner may need a permit. Before a planned burning, an owner may be required to provide a map of the acreage. GUIDELINES at p. 7.

C. Determining Appraised Values

The owner who switches from another agricultural use to wildlife management use must initially pay the same amount of property taxes that would have been paid if the land had remained in its former agricultural use. Land qualified for wildlife management should have the same appraised value as before conversion to wildlife management use. For example, if the land was in Irrigated Cropland I before the owner switched its use to wildlife management, the land should be placed in the wildlife management category, but will be appraised at the Irrigated Cropland 1 value. GUIDELINES at p. 5.

D. Notifying the Chief Appraiser of Change to Wildlife Management Use

The law does not require an annual application for agricultural use once the land has qualified. When an owner changes agricultural uses to wildlife management, the owner must notify the chief appraiser in writing before May 1 of the year in which the owner wants to qualify under wildlife management use. This allows the chief appraiser to determine if the land qualifies for wildlife management use. The same is true if an owner changes from wildlife management use to another qualifying agricultural use. Additionally, individual county appraisal districts may have notification requirements for changing the use of small portions of land from one qualified agricultural use to another. GUIDELINES at pp. 5-6.

E. The Developing Controversy

Property owners and local taxing authorities have been at odds about subdivisions in which portions of lots are designated as wildlife management areas. Tax appraisers, who are losing hundreds of thousands of tax dollars a year, say that the land is a group of big back yards and should not qualify for the wildlife management designation and the associated tax breaks. Statewide more than 175,000 acres, with a market value of $228 million, were designated for wildlife management in 1999 alone. Because of the designation, the land was valued at a mere $11 million for tax purposes. Gary Susswein, *Parks agency may decide wildlife-land tax struggle,* AUSTIN AMERICAN-STATESMAN, Apr. 4, 2001, at B1. See also Gary Susswein, *The day in brief,* AUSTIN AMERICAN-STATESMAN, Apr. 6, 2001, at B3.

Although the Comptroller's Office has the authority to promulgate regulations regarding the wildlife management designation, up to now they have failed to do so. In 1996 the Office issued the interim Guidelines, which have no binding legal effect. An effort was made during the recent legislative session to get the legislature to regulate this burgeoning tax area. The enacted legislation, however, does not go quite that far. House Bill 3123 basically requires the Texas Parks and Wildlife Commission to assist the comptroller to establish rules for private property to qualify for the special wildlife management tax designation. This bill was signed by the governor and will be effective September 1, 2001. It amends Subchapter D, Chapter 23, Texas Tax Code by adding Section 23.521 to read as follows:

> Sec. 23.521. STANDARDS FOR QUALIFICATION OF LAND FOR APPRAISAL BASED ON WILDLIFE MANAGEMENT USE.
>
> (a) The Parks and Wildlife Department, with the assistance of the comptroller, shall develop standards for determining whether land qualifies under Section 23.51(7) for appraisal under this subchapter. The comptroller by rule shall adopt the standards developed by the Parks and Wildlife Department and distribute those rules to each appraisal district. On request of the Parks and Wildlife Department, the Texas Agricultural Extension Service shall assist the department in developing the standards.
>
> (b) The standards adopted under Subsection (a) may require that a tract of land be a specified minimum size to qualify under Section 23.51(7) for appraisal under this subchapter, taking into consideration one or more of the following factors:
>
> (1) the activities listed in Section 23.51(7);
>
> (2) the type of indigenous wild animal population the land is being used to propagate;
>
> (3) the region in this state in which the land is located; and
>
> (4) any other factor the Parks and Wildlife Department determines is relevant.
>
> (c) The standards adopted under Subsection (a) may include specifications for a written management plan to be developed by a landowner if the landowner receives a request for a written management plan from a chief appraiser as part of a request for additional information under Section 23.57.
>
> (d) In determining whether land qualifies under Section 23.51(7) for appraisal under this subchapter, the chief appraiser and the appraisal review board shall apply the standards adopted under Subsection (a) and, to the extent they do not conflict with those standards, the appraisal manuals developed and distributed under Section 23.52(d).

The bill also repeals section 23.52(g) and directs the Texas Parks and Wildlife Department to develop the new standards. The comptroller is then to adopt the standards by rule and distribute to each appraisal district. The rules will apply to tax years beginning on or after January 1, 2002.

CONCLUSION

This paper has presented three examples of the intersection of environmental law and land use planning: Smart Growth, conservation easements, and Texas' wildlife management tax designation. Gone are the days when environmental law was solely within the realm of the esoteric. From the local community to the federal government, interest is high in improving the quality of life by embracing the principles of sustainable development. Whether the community and the nation continue to explore these principles and whether they decide that such concepts actually improve the quality of life, will be for generations of our children to determine. For now, however, every environmental law practitioner should be familiar with the sustainability precepts in order to provide a full range of services for her clients.

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MARY K. SAHS is currently in solo practice as Sahs & Associates, P.C. Her practice focuses on environmental, water and administrative law. Ms. Sahs, an honors graduate of the University of Texas School of Law, has practiced in the fields of environmental, water and administrative law for over fifteen years. She served as a hearings examiner and the Public Interest Counsel at the Texas Water Commission. For several years she was an assistant city attorney for a number of small municipalities in central Texas. Her appellate experience includes work as a briefing attorney for nationally renowned attorney, Michael E. Tigar. She is licensed to practice in Texas and is admitted to practice in the Northern, Eastern, and Western Districts of Texas.

Ms. Sahs served for many years as an officer of the Environmental and Natural Resources Law Section of the State Bar of Texas, including serving as a co-editor of the Environmental Law Journal. She is co-editor of West's Texas Practice Series, Environmental Law volumes. She is also program chair of the Central Texas Chapter of the Air & Waste Management Association.

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7/01

Ross Richard-Crow, Esq.

ROSS RICHARD-CROW. Mr. Richard-Crow is currently working with the firm of Booth, Ahrens & Werkenthin, P.C. He previously was an associate with Sahs & Associates, P.C. for four years. He is a graduate of the University of Texas School of Law and was licensed to practice in Texas in 1987. He returned to the practice of law in 1997 after a successful career in consumer protection, and as a media consultant for an environmental technologies company. He lived for several years in Japan. Mr. Richard-Crow's practice focuses on environmental, water and administrative law. He also continues his interest in consumer protection law. In addition, he counsels clients on media related issues and lobbying at the federal level.

7/01

There are no papers for this section.

THE THIRTEENTH ANNUAL TEXAS ENVIRONMENTAL SUPERCONFERENCE

Beatlemania Quiz

(To be turned in during the Thursday afternoon break)

1. The IRS theme song

   _____

2. Fall over Doris, and you'll be this

   _____

3. When your boss wanted that project

   _____

4. Highly-placed jester

   _____

5. What you get when you cross Mrs. Roosevelt and gymnast Cathy

   _____

6. On the other hand, Swede wouldn't

   _____

7. Superman's sister-in-law

   _____

8. This title constitutes a very brief telephone conversation

   _____

9. Parents say this to small children before crossing the street

   _____

10. Lifeguard, psychiatrist, and servants

_____

11. Except in the red light district

_____

12. Sally's fruitful, long-lived sister

_____

13. The song title that suits a deck of cards

_____

14. What you need to do when your spouse is going to interrupt your tryst with someone else

_____

15. Best advice for people approaching a porcupine

_____

16. How often law firms want their associates to bill

_____

THE THIRTEENTH ANNUAL TEXAS ENVIRONMENTAL SUPERCONFERENCE

Name that Tune

(To be turned in during lunch break on Friday)

Example: _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____