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Tailored Site Environmental Insurance for Post-Remedial Risks

By Susan Neuman

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I. Introduction

The history of insurance coverage for site environmental risks reveals a confusing array of different names for the same policy but one constant throughout: the close relationship between the policy and environmental law. The Environmental Impairment Liability (EIL) policy appeared in 1980 and became widely available for the next few years as a direct result of the new liabilities and financial assurance provisions in the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).[1] By 1986, the EIL policy had

1 *See generally* 42 U.S.C. §§ 6901-6992k (for financial assurance requirements, *see id.* § 6924 specifically).

been replaced by the much less available Pollution Legal Liability (PLL) policy. PLL policy coverage became extremely restrictive and expensive as a result of large losses and the unavailability of reinsurance.[2] The version of the policy currently in use first appeared in 1995, as a response to changes in environmental law that limited and mitigated onerous CERCLA liability, often referred to as the Brownfields Movement.[3] It was during this period that different names for the policy proliferated (and continue to do so, possibly because of competition to find the best acronym).[4] In this paper, the first two generations of the policy are referred to as the EIL and PLL policies, respectively. The policy currently in use is referred to as the Site Pollution Liability (SPL) or the new SPL policy.

The new SPL policy differed from its immediate predecessor in form, function, and scope of coverage. Its primary function, which differed from the role of ordinary insurance policies, was to facilitate brownfields transactions.[5] In my professional experience, it has done so very successfully. One explanation for such success is that these policies, unlike other lines of business, are often seen as an investment—a tool for adding value—rather than an expense.[6] In other words, they remove environmental risk from contaminated property by transferring the risk to a financially sound insurer and thus convert distressed properties into solid investments.[7]

As I recall from my experience in drafting some of the new products, insurers were quite eager by 1995 to change the policy in ways that allowed it to fulfill this role. It had to become much broader in coverage and more flexible in operation than its predecessor.[8] For example, PLL policies prior to 1995 included an absolute exclusion for known pollution conditions; SPL policies today have modified this exclusion with an exception for known conditions that have been disclosed in the application process.[9] These new SPL policies are also more flexible than the older products. Prior policies were "contracts

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2 John G. Nevius & Eugene R. Anderson, *Insurance Sold in the Past Can Finance Brownfield Cleanups*, *in* BROWNFIELDS LAW & PRACTICE § 28.01[8][b] (Michael B. Gerrard ed., 2014).

3 Robert M. Horkovich et al., *Site Pollution Liability Insurance*, *in* ENVIRONMENTAL LIABILITY AND INSURANCE RECOVERY 515 (David L. Guevara & Francis J. DeVeau eds., 2012).

4 *See*, *e.g.*, AIG's Pollution Legal Liability Select (PLLS), XLCatlin's Pollution and Remediation Liability (PARL), Colony's Premises Environmental and Remediation Liability (PEARL), and Beazley's Enviro Covered Location Liability Policy – Site Environmental (ECLIPSE) (on file with author).

5 WILLIS GLOBAL RISK SOLUTIONS, ENVIRONMENTAL INSURANCE MARKET REVIEW 2002 6 (2002), http://www.willis.com/documents/publications/services/environmental/Environmental¶df.PDF (last visited June 21, 2015), *archived at* http://perma.cc/98UA-88RK.

6 *Id*.

7 Steven I. Werner, *New Insurance Policies Can Help Manage the Risks Associated with Brownfields Redevelopment*, *in* BROWNFIELDS LAW & PRACTICE § 28.02[1] (Michael B. Gerrard ed., 2014).

8 Susan Neuman, *The New Environmental Insurance Products: When Does it Make Sense to Buy Them?*, ENVTL. L. IN N.Y., Nov. 1998, at 169, 181 [hereinafter *The New Environmental Insurance Products*].

9 *Id*. *See, e.g.*, Champion Dyeing & Finishing Co. v. Centennial Ins. Co., 810 A.2d 68, 71, 74-76 (N.J. Super. Ct. App. Div. 2002) (illustrating in its entirety the near impossibility of covering historic pollution).

of adhesion," offering little room for negotiation over language.[10] The new SPL policies can be tailored or "manuscripted" to fit the specific needs of the insured, including site risks and environmental indemnities.[11]

However, these often indispensable policies have two notable gaps.[12] One is an implementation gap.[13] Tailoring policies to fit environmental indemnities requires environmental, legal, technical, and insurance underwriting expertise on the part of the insurance brokers and underwriters who negotiate policy language and the lawyers who negotiate environmental provisions in purchase and sale (PSA) contracts.[14] As an environmental insurance broker, I have found that effective implementation also requires that these experts work as a team. The lack of such expertise and teamwork can cause ambiguous language, and coverage disputes, resulting in uncovered claims and even the failure of the deal.[15]

A second gap is the general failure of SPL policies to cover post-remedial liabilities, those that arise after No Further Action Letter (NFAs) and liability releases are issued.[16] These post-remedial liabilities are frequently referred to as "Long-Term Stewardship" (LTS)[17] liabilities and, more recently, "Continuing Obligations" (COs).[18] In insurance terms, they primarily consist of reopeners and liabilities associated with institutional or engineering controls (IC/ECs). Reopeners are circumstances listed in NFA letters which could cause the agency to change its mind and take action.[19] I have found as a broker that SPL policies often need to be in place before the NFA or liability release is issued and before coverage for reopener claims can be afforded. The policy will instead contain

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10 *Glossary of Insurance & Risk Management Terms: Contract of Adhesion*, INT'L RISK MGMT. INST., http://www.irmi.com/online/insurance-glossary/terms/c/contract-of-adhesion.aspx (last visited Mar. 10, 2015), *archived at* http://perma.cc/3J6G-W6K3 [hereinafter *IRM Glossary*].

11 Horkovich et al., *supra* note 3, at 516.

12 *See* Susan Neuman, *Filling the Key Gaps in Brownfields Insurance with Alternative Risk Transfer Products*, *in* BROWNFIELDS LAW & PRACTICE § 28.03[1][a] (Michael B. Gerrard ed., 2014) [hereinafter *Filling the Key Gaps in Brownfields Insurance*].

13 *Id.*

14 *Id.* at § 28.03[1][c][i].

15 *Id.* at § 28.03[1][a].

16 *Filling the Key Gaps in Brownfields Insurance*, *supra* note 12, at § 28.03[3][b][ii].

17 Environmental Law Institute, An Analysis of State Superfund Programs: 50 State Study, 2001 Update 45 (Nov. 2002).

18 U.S. ENVTL. PROT. AGENCY, INSTITUTIONAL CONTROLS: A GUIDE TO IMPLEMENTING, MONITORING, AND ENFORCING INSTITUTIONAL CONTROLS AT SUPERFUND, BROWNFIELDS, FEDERAL FACILITY, UST AND RCRA CORRECTIVE ACTION CLEANUPS 17 (Dec. 2002) [hereinafter *Implementing, Monitoring, and Enforcing Institutional Controls*], *available at* http://www.epa.gov/superfund/policy/ic/guide/icgdraft.pdf, *archived at* http://perma.cc/KG9C-6UJ7; U.S. U.S. ENVTL. PROT. AGENCY, INSTITUTIONAL CONTROLS: A GUIDE TO PREPARING INSTITUTIONAL CONTROL IMPLEMENTATION AND ASSURANCE PLANS AT CONTAMINATED SITES 5 (Dec. 2012) [hereinafter *Preparing Institutional Controls*], *available at* http://www.epa.gov/superfund/policy/ic/guide/ICIAP%20guidance%20(FINAL)%20-%2012.04.2012.pdf, *archived at* http://perma.cc/2Z4K-SYXZ; 10; N.J. STAT. ANN. § 58:10B-13(a), (g) (West 2015); *Filling the Key Gaps in Brownfields Insurance*, *supra* note 12, at § 28.03[3][b][1].

19 *Filling the Key Gaps in Brownfields Insurance*, *supra* note 12, at § 28.03[3][c].

an exclusion for cleanup costs arising from known conditions that is designed to be removed upon NFA issuance. The gap and problem lies in the typical language used to forecast if and when the exclusion will be removed. The language is often ambiguous, even equivocal.

When IC/ECs are part of a remedy, the policies also typically exclude them outright and automatically, with no room for negotiation.[20] ICs are legal and administrative restrictions on the use of or access to a site, such as deed restrictions and zoning regulations, while ECs are physical modifications to a site, such as caps, fences, or vapor mitigation systems.[21] These controls are designed to reduce or eliminate the potential for exposure to known pollution conditions.[22] The duty to monitor and maintain IC/EC's can last in perpetuity, which in my experience drafting policies for insurers partly explains why some underwriters are so eager to exclude them. Although some individual policies have been issued in the last few years containing coverage for IC/EC liabilities, the environmental insurance industry has generally refused to address this significant environmental risk.[23]

In my opinion, the industry can now reverse its position. An innovative use of the SPL policy can help insurers become comfortable with the risk by providing them with the very best methods for maintaining IC/ECs as underwriting requirements. Those methods include a web-based system for continuously monitoring and alerting interested parties to potential breaches.[24] By bundling these loss control services with SPL policy coverage provided by a Managing General Agent (MGA), the policy becomes a mechanism for enforcing IC/EC compliance. After a brief examination of the SPL policy's history, this paper focuses on how the new product can fill the post remedial gap with coverage tailored to fit the elements of VCPs, predicated on the best methods of IC/EC maintenance, and integrated into transactions by environmental lawyers.

II. A BRIEF HISTORY OF SITE ENVIRONMENTAL INSURANCE

A. 1980-1986: FIRST GENERATION EIL POLICIES

The new liabilities and financial assurance provisions in RCRA and CERCLA were the impetus for the first generation EIL policies. RCRA regulated hazardous and solid waste, focusing on active and future facilities, and required financial assurance (FA) for Treatment, Storage and Disposal (TSD) facilities.[25] In contrast, CERCLA focused on

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20 *Id.* at § 28.03[3][a].

21 *Id.*

22 *Id.*

23 In my opinion and based on personal experience, this aversion is partly due to fear of unending Superfund liability, and, more recently, the need to underwrite the coverage for the professional competence of the engineers tasked with maintaining IC/ECs.

24 *See* Terradex, *Brownfield Property Loss Control Service* (June 5, 2015), http://blog.terradex.com/wp-content/uploads/2015/05/TerradexLossControl.pdf, *archived at* http://perma.cc/47BB-QRWQ.

25 *See generally* 42 U.S.C. §§ 6901-6992k (for financial assurance requirements, *see id.* § 6924 specifically).

old, abandoned, and uncontrolled hazardous waste sites.[26] Enacted in haste at the tail end of the Carter administration, and poorly drafted,[27] the ambiguities in CERCLA resulted in broad interpretation by the courts to effectuate its remedial purpose.[28] The insurance industry responded with fifty-six EIL programs and issued and sold many policies under those programs.[29]

The EIL policy was essentially designed to address third-party liability arising out of an environmental impairment or a pollution condition (a release, discharge or escape of pollutants into the land, water, or atmosphere) emanating from a specified site.[30] The policy was patterned after the Comprehensive General Liability (CGL) policy.[31] Coverage A of the CGL policy provided coverage for damages because of third-party bodily injury and property damage caused by an occurrence (an accident, including continuous or repeated exposure to the same general harmful conditions).[32] The insuring agreements of the new EIL policy added third-party cleanup costs to third-party bodily injury and property damage; however, these liabilities were caused by an environmental impairment or pollution condition rather than an occurrence during the policy period and had a claims-made rather than notice of occurrence trigger.[33]

Unfortunately, EIL policy language was often imprecise.[34] Some early policies omitted language that scheduled specific sites, with the result that they covered pollution conditions at all of an insured's locations. Claims-made trigger provisions regularly failed to achieve their purpose of eliminating long-tail exposure caused by CERCLA's retroactive liability provisions.[35] What constituted a claim or when the claim was made was often unclear because the term "claim" was not usually defined.[36] By 1986, fifty-five of these programs were discontinued due to a combination of severe losses and reduced availability of reinsurance.[37] The losses were basically a result of insurers misconceiving how to underwrite, rate, and draft policies covering environmental risks.[38]

The fifty-six carriers that entered into the environmental insurance market were CGL carriers. They attempted to apply traditional practices for underwriting and pricing

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26 *See generally id.* §§ 9601-9675.

27 Donald S. Berry, *The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Emerged as a Result of Hazardous Waste Disposal and Cleanup Issues*, *in* BROWNFIELDS LAW & PRACTICE § 3.01[3][a] (Michael B. Gerrard ed., 2014).

28 *Id.*

29 Nevius & Anderson, *supra* note 2, at § 28.01[8][b].

30 Horkovich et al., *supra* note 3, at 506.

31 David Dybdahl, *A User's Guide to Environmental Insurance* 27 (Am. Risk Mgmt. Res. Network), http://www.erraonline.org/usersguide.pdf (last visited June 21, 2015), *archived at* http://perma.cc/4VUX-TFNR. The "C" for "comprehensive" in CGL was replaced by "commercial," because, as I recall, "comprehensive" had connotations of covering everything.

32 *The New Environmental Insurance Products*, *supra* note 8, at 178.

33 Horkovich et al., *supra* note 3, at 506.

34 Susan Neuman, *The Meaning of Champion Dyeing and Finishing*, 15 ENVTL. CLAIMS J. 201, 205 (2003) [hereinafter *Champion Dyeing and Finishing*].

35 Horkovich et al., *supra* note 3, at 507.

36 *Id.* at 508.

37 *Id.*

38 *Champion Dyeing and Finishing*, *supra* note 34, at 204.

CGL policies to site-specific environmental policies.[39] This was typical of an evolving insurance market with a lack of history upon which to base underwriting decisions coupled with faulty underwriting techniques.[40] An SPL policy cannot be successfully underwritten or rated in the formulaic way of a CGL policy.[41] CGL policies are underwritten by examining the general operations of a company and loss projections based on years of loss runs,[42] according to a rating plan authorized by the state insurance department."[43] Site environmental policies, on the other hand, are risk rated on an individual basis by comparing specific Phase I's and Phase II's with comparable reports for other, similar sites.[44] Almost nothing was known about other similar sites in the early 1980's.[45] ASTM International did not publish the Phase I standard until 1993.[46] Consequently, it should not be surprising that an environmental engineering industry hardly existed ten years earlier. In sum, in the early 1980's, the environmental engineering which ought to be the basis of underwriting was rudimentary.[47] Most importantly, underwriters lacked experience and history with these types of policies.[48]

B. 1986-1995: SECOND-GENERATION PLL POLICIES

By 1986, all but one of the fifty-six EIL programs had withdrawn from the market due to adverse loss experience and the unavailability of reinsurance.[49] AIG alone survived because it understood how to underwrite, rate, and draft site environmental policies, to which it gave the name Pollution Legal Liability (PLL).,[50] In 1987 and later in 1992, two offshoots of AIG—ECS (now XLCatlin) and Zurich, respectively—set up separate environmental insurance divisions using underwriting guidelines similar to AIG's.[51] They hired underwriters with environmental technical backgrounds and required lengthy "environmental audits" of historical and operational conditions as key parts of the application process.[52]

Not surprisingly, policy wording and underwriting coming from the three carriers during this period became increasingly more cautious and precise than characteristic of

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39 *Id*.
40 *The New Environmental Insurance Products*, *supra* note 8, at 179.
41 *Champion Dyeing and Finishing*, *supra* note 34, at 204.
42 *Id*.
43 *Id*.
44 *The New Environmental Insurance Products*, *supra* note 8, at 179.
45 *Id*.
46 For a history of the ASTM's adoption of the Phase I standard, *see* David Coyne, *Phase I Environmental Site Assessment Standard Practice 2013 Changes* (Liberty Envtl. Inc. Nov. 7, 2013), http://www.libertyenviro.com/phase-i-environmental-site-assessment-astm-standard-practice-e1527-13/, *archived at* http://perma.cc/PW5V-4JQM; *see also* ASTM E1527-13, STANDARD PRACTICE FOR ENVIRONMENTAL SITE ASSESSMENTS: PHASE I ENVIRONMENTAL SITE ASSESSMENT PROCESS (ASTM International 2013), http://www.astm.org/Standards/E1527.htm, *archived at* http://perma.cc/6LEM-K94X.
47 Coyne, *supra* note 46.
48 *Id*.
49 Nevius & Anderson, *supra* note 2, at § 28.01[8][b].
50 *See Champion Dyeing and Finishing*, *supra* note 34, at 206.
51 *Id*. at 205-06.
52 *Id*. at 206.

the programs that had failed.[53] Coverage lawyers were tasked with making coverage more restrictive yet legally sufficient, capable of prevailing in a coverage dispute.[54] They inserted restrictive definitions into insuring agreements and added multiple exclusions that limited the scope of basic terms."[55] The pollution condition could not be on-site and cleanup costs could not be first-party.[56] This aversion to on-site pollution conditions and first party cleanup costs derived, in my policy drafting experience, from the CGL policy's inherent limitation to coverage for third, not first-party, damages and, indeed, some second generation PLL policies included owned property exclusions.[57] Yet, on-site conditions can be as much—if not more—of a concern in contaminated property transactions as off-site conditions.[58]

The exclusion for pre-existing known pollution conditions was another serious limitation.[59] Perhaps because of the difficulty in determining what is "known" (particularly for older industrial facilities), this exclusion was the subject of many heated coverage disputes and some litigation.[60] Yet, as I learned from experience with contaminated property transactions, coverage for some liabilities arising from known contamination is often precisely what brownfield properties require. The creation of a double trigger of coverage was another serious limitation when coupled with a one-year only term.[61] The claim not only had to be made against the insured during the policy period; it had to be reported to the company during the policy period.[62] Long-tail, delayed manifestation claims often could not easily satisfy the double trigger within the one-year term of the policy.[63] Such limitations made coverage for historical conditions quite difficult and suited the policies more naturally to covering new or operational conditions, which tend to be sudden rather than gradual. In my experience, the policies were largely sold to the owners of very large manufacturing and industrial facilities, the only ones that could afford their very high premiums. An average premium in 1990 for a one-year policy purchased by an industrial facility with $5 million limits and a $50,000 deductible was at

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53 *Id.*

54 Speaking as one of those coverage lawyers, our previous experiences in litigating ambiguous policy language made us greet the opportunity to clean up and clarify similarly ambiguous language with relish.

55 *The New Environmental Insurance Products*, *supra* note 8, at 179.

56 *Id.* An example of restrictive wording to express this thought was the statement in some insuring agreements that the pollution condition had to emanate from an insured site and result in bodily injury, property damage or cleanup costs "beyond the boundaries of the insured site."

57 *Id.* Some SPL policies have them today, but they limit the exclusions to property damage.

58 *Id.*

59 *Id.*

60 *Id.*; *see, e.g.*, Advanced Micro Devices, Inc. v. Great Am. Surplus Lines Ins. Co., 245 Cal. Rptr. 44, 45, 48, 49-50 (Cal. Ct. App. 1988) (outlining the difficulty of proving that a pre-existing condition was unknown in order to get coverage).

61 *Champion Dyeing and Finishing*, *supra* note 34, at 206.

62 *Id.*

63 *See* Champion Dyeing & Finishing Co. v. Centennial Ins. Co., 810 A.2d 68, 71, 73-74 (N.J. Super. Ct. App. Div. 2002).

least $100,000.[64] These high premiums and limited client targets were another facet of the unavailability of PLL coverage during this period.

C. 1995 to the Present: Third Generation SPL Policies

1. Influence of Emerging VPCs

The Brownfields Movement, and in particular the activities of emerging state Voluntary Cleanup Programs (VCPs), was the impetus for converting the old, restrictive and inflexible second generation PLL policy into a broad and flexible SPL policy .[65] As explained by an April 1997 GAO report, VCPs were a crucial part of that movement because they allowed private parties to remediate sites using less extensive administrative procedures and offered some liability relief for past contamination.[66] The VCPs had varying characteristics,[67] but they all gave "volunteers some assurance that if a cleanup were completed according to the [VCP's] requirements, the volunteer's liability would be limited under state law for past instances of contamination."[68] However, the strength of the release varied from a Covenant Not to Sue (CNS), which provided that the state would not take any enforcement action against the volunteer once a cleanup had been completed, to a Certificate of Completion (COC) that might or might not, include a liability release, to an NFA letter certifying, on the basis of the state's review of information provided by the volunteer, that the state did not expect to require further action from the volunteer.[69] NFA letters did not, however, excuse the volunteer from further liability.[70]

2. Characteristics of the New Policies

The Brownfields Movement, including VCP activities, created a new role for environmental insurance policies: the facilitation of brownfields transactions. It is a role that differentiates the policies from other lines of business where insurance is perceived as an expense, not an investment.[71] The second generation PLL policies were clearly much too restrictive to play such role.[72] Beginning in 1995, the five carriers writing site environmental insurance at the time—AIG, Zurich, ECS, Kemper, and United Capitol—developed two new site-specific policies to rectify this situation; the policies were written with contaminated property transactions very much in mind.[73] These were the cleanup

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64 *The New Environmental Insurance Products*, *supra* note 8, at 179.

65 Horkovich et al., *supra* note 3, at 515.

66 U.S. GEN. ACCOUNTING OFFICE, STATE VOLUNTARY PROGRAMS PROVIDE INCENTIVES TO ENCOURAGE CLEANUPS 2-3 (Apr. 1997), *available at* http://www.gao.gov/assets/160/155865.pdf, *archived at* http://perma.cc/P8JX-W6Z9.

67 *Id.* at 5-7.

68 *Id.* at 5.

69 Deborah A. Sivas, *State Voluntary Cleanup Programs (VCPs) Are Intended to Provide Flexibility, Protection from Future Enforcement Liability Actions, and Financial Incentives*, *in* BROWNFIELDS LAW & PRACTICE § 17.01[4][a]-[c] (Michael B. Gerrard ed., 2014) [hereinafter *State Voluntary Cleanup Programs (VCPs)*].

70 *Id.* at § 17.0[4][b].

71 WILLIS GLOBAL RISK SOLUTIONS, *supra* note 5.

72 *See The New Environmental Insurance Products*, *supra* note 8, at 181.

73 *Id.*

cost cap (CCC) policy and a new, multi-part SPL policy.[74] As far as I was able to ascertain, the old PLL policy was only offered to property owners and operators. These new policies, however, targeted the following parties and situations: (1) site owners, (2) developers, (3) contractors/consultants, (4) brownfields redevelopment projects, (5) mergers/acquisitions/divestitures, and (6) real estate transactions.[75]

The CCC policy was a completely new and unusual form designed to address a central deficiency of the prior PLL policies: lack of coverage for known pollution conditions.[76] The CCC policy was not a liability policy, but rather a stop-loss policy that essentially covered cost overruns above an estimated, sometimes guaranteed, cost.[77] Coverage would attach when the costs exceeded the retention level—the estimated costs plus a buffer.[78] The CCC policy was of great value in facilitating some brownfields transactions because it provided certainty by capping or controlling cleanup costs that were at issue in a transaction.[79] The policy quickly became very popular when it was introduced. However, because of plunging interest rates and "horrible loss experience," the CCC policy essentially disappeared from the market starting in 2010.[80] Now, two carriers, Beazley and AXIS, offer the coverage, but in much more limited and tightly underwritten forms.[81]

In addition to the CCC policy, all five of the major environmental carriers, beginning with AIG in 1995, designed a new SPL form that could replace the old second generation policy and fulfill its new role.[82] This policy was distinctly different from its predecessor in terms of scope of coverage as well as form and organization.[83] As opposed to the PLL policy's single insuring agreement,[84] the new policies all had multiple coverage parts—from as few as two to as many as twelve. This organization breaks down the basic elements of the old policy's insuring agreement that covered bodily injury, property damage, and cleanup costs arising from a site pollution condition—based on varying distinctions such as on-site versus off-site, pre-existing versus new conditions, and types of damage or loss.[85] These coverage breakdowns or menus allowed insureds to select the precise coverages they and the transaction required.[86] For example, under AIG's PLLS, an insured could select coverage for on-site cleanup costs arising from pre-existing conditions, on-site cleanup costs from pre-existing conditions, or each of the two arising from new conditions.

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74 *Id.*
75 *Id.*
76 *Id.*
77 *Id.*
78 *Id.*
79 Horkovich et al., *supra* note 3, at 520.
80 AON Risk Solutions, The Return of the Cost Cap: Remediation Cost Overrun Protection 2.0 2 (Aug. 2013), *available at* http://www.aon.com/attachments/risk-services/environmental/The-Return-of-Cost-Cap-2013-FINAL.pdf, *archived at* http://perma.cc/4CCF-3DUY.
81 *Id.*
82 *The New Environmental Insurance Products*, *supra* note 8, at 181.
83 *Id.* at 182.
84 *Id.*
85 *Id.*
86 *Id.*

These breakdowns and menus, however, usually do not suffice to accomplish the necessary tailoring required in specific situations. Additional "manuscripting" is often necessary, particularly whenever known contamination is involved, which is most of the time with brownfields.[87]

These new policies largely filled the holes in the old policies, which rendered them useless in brownfields transactions. The biggest hole was for on-site, first-party cleanup costs.[88] SPL policies now provide coverage for on-site, first-party cleanup costs that is triggered by discovery of a pollution condition and reporting that condition to the company during the policy period.[89] With the discovery trigger, it is possible to cover voluntary cleanup costs and ease the transaction process. The discovery trigger allows buyers to perform Phase II's (invasive investigations) without necessarily having to report findings to a regulatory agency. Another improvement is the lengthening of the policy period to as much as ten years, making it much easier to trigger the policy and to cover long-tail claims[90]

The absolute exclusion for known pre-existing pollution conditions in the PLL policy had posed a particularly serious barrier to coverage for brownfields sites. As I recall, the original thought in 1995 was that the CCC policy would address this problem by applying to known conditions, while the new SPL policy would apply to unknown conditions. However, it soon became clear that SPL policies would have to provide some coverage for known conditions.[91] For one thing, CCC policies do not cover bodily injury and property damage; they are not liability policies and cannot cover reopener liability. The exclusion in the SPL policy for known pollution conditions was therefore modified in 1995 with an exception for known conditions that were disclosed in the application process.[92] The intent of this change was to cover known conditions that were disclosed in the site documents; with the option of specifically excluding some or all of those conditions by endorsement.[93]

III. TWO KEY GAPS IN THE SPL POLICY

A. THE IMPLEMENTATION GAP

In the last twenty years, these newly flexible, broader SPL policies have been an important risk management option for brownfields projects and have helped to eliminate the uncertainty that typically plagued such projects.[94] However, the new SPL policies likewise suffer from particular gaps and problems. One of the most serious is an imple-

87 *Id.*
88 *See* Horkovich et al., *supra* note 3, at 515 (discussing the most significant change and improvement from first-generation to second-generation policies being the addition of these types of coverage).
89 *Id.* at 519.
90 *See The New Environmental Insurance Products*, *supra* note 8, at 181.
91 *See id.* at 182.
92 *Id.*
93 *Id.*
94 Werner, *supra* note 7, at § 28.02[1].

mentation gap.[95] SPL policies covering brownfields are, as stated above, negotiable contracts that should be drafted with the same precision as the environmental indemnity agreements of PSAs.[96] That does not always happen due to a lack of environmental, legal, technical, and underwriting expertise on the part of the drafters.[97] Successful implementation of the insurance requires such expertise at every step of the insurance process.[98]

Implementation at the risk transfer stage includes not only producing a properly worded policy, but also integrating the policy into the environmental terms of a transaction. As stated above, the policies are used to support or substitute for indemnities in PSAs. A brownfields transaction involves *at least* two contracts, the insurance contract and the PSA.[99] The insurance policy needs to be integrated into the other contracts, and when the overall transaction is mishandled (negotiated by non-environmental lawyers or even real estate brokers), it becomes much harder to tailor coverage appropriately.[100]

The implementation problem continues after initial risk transfer in these parallel contracts.[101] Parties to a transaction (and their lawyers) often lose interest in the policies once they have served their primary purpose of facilitating the transaction. The tendency is for the policy to essentially be put in a drawer and forgotten. The policies only receive attention when a claim comes in, which loss control might have prevented; provided, however, that insurers ever performed loss control for these long term policies, which they rarely do.

Filling the implementation gap requires clients—buyers and sellers of contaminated properties—to hire the right environmental experts: environmental insurance brokers with the legal and technical expertise to manuscript brownfields policies, environmental engineers and consultants to perform site investigations and remediation, and transactional environmental lawyers who understand how to use the insurance policies to facilitate transactions. It is also necessary for these professionals to work as a team to integrate the policy with the PSA, which they do not always do.[102] Teamwork is particularly necessary to filling the post-closing loss or risk control gap. Risk control is a major side of risk management, comparable to risk financing. Risk management requires a risk manager. The usual fragmentation of the brownfields risk management process is counterproductive and contributes to the implementation problem.

B. The Post-Remedial Gap

Another major gap in these policies is their failure to provide adequate coverage for post-remedial/post-closure liabilities—those that arise subsequent to issuance of an NFA letter or liability release. Post-remedial liabilities have also been referred to as Long-

95 *Filling the Key Gaps in Brownfields Insurance*, *supra* note 12, at § 28.03[1][a].
96 *Id.*
97 *Id.* at § 28.03[1][c](i).
98 *Id.*
99 *Id.* at § 28.03[1][c].
100 *See id.*
101 *See id.*
102 An example was an environmental lawyer who recently told me that he viewed environmental insurance as a "necessary evil" in transactions.

Term Stewardship Liabilities[103] and more recently as Continuing Obligations liabilities (COs).[104]

The 2002 Brownfields Amendments to CERCLA provided that, to maintain their defenses to CERCLA liability, innocent owners, bona fide prospective purchasers, and contiguous owners must: (1) provide full cooperation, assistance, and facility access to persons who are authorized to conduct response actions at a facility; (2) comply with any land use restrictions established or relied on in connection with the response action; and (3) not impede the effectiveness of any institutional control employed at the facility in connection with a response action.[105] The Environmental Protection Agency's (EPA) guidance refers to Land Use Restrictions and IC limitation provisions as ongoing obligations that apply even if the restrictions or controls were not in effect when the person bought the property.[106] These requirements create additional and open-ended liabilities arising out of failure to maintain IC/ECs over known conditions left in place that last "in perpetuity."[107]

People familiar with site environmental insurance will acknowledge that, in insurance terms, COs, LTS or post-remedial risks consist of two basic parts: the reopener risk and the IC/EC liability risk. When the policy covers cleanup costs arising from known pollution conditions, it is covering reopener, which is the risk of a new regulatory agency claim or requirement to take "further action" with respect to such known conditions. Insurers are willing to provide coverage for this risk, with a claims-made or governmental mandate trigger, once an NFA or liability release has been issued. However, the coverage requires preparation at an earlier stage. The sites with NFAs are not always the ones involved in transactions. More typically, the NFA is yet to be achieved, although perhaps it will be soon. Therefore, the policy must exclude known cleanup costs,[108] but forecast or provide a transition to reopener coverage by stating when the exclusion will be removed.[109] However, the exclusions typically do not simply state that they will be removed. The wording of these forecasts can be highly qualified; it may state that the exclusion "may be removed or amended" and only "at the insurer's sole discretion." Once an NFA letter is actually issued, it can be very difficult to get the exclusion removed or can take considerable time.

The other aspect of post-remedial risk, in insurance terms, involves liabilities associated with the use of IC/ECs over contamination left in place pursuant to Risk-Based

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103 Environmental Law Institute, *supra* note 17.

104 David R. Gillay, Partner, Barnes & Thornburg LLP, SouthEastern States Vapor Intrusion Symposium: Phase I ESA Update (Oct. 1, 2014) (the slideshow accompanying the presentation can be found at http://www.sesvis.com/wp-content/uploads/2014/07/SESVIS-Speaker-Dave-Gillay-Wed.pdf, *archived at* http://perma.cc/KL9N-3MDA).

105 42 U.S.C. §§ 9601(40)(E), 9601(40)(F), 9601(35)(A), 9607(q)(1)(A)(iv), 9607(q)(1)(A)(v).

106 Memorandum from Susan E. Bromm, Dir., U.S. Envtl. Prot. Agency Office of Site Remediation Enforcement, to Dir., Office of Site Remediation and Restoration, Region I, et al. 6 (Mar. 6, 2003), *available at* http://www2.epa.gov/sites/production/files/documents/common-elem-guide.pdf, *archived at* http://perma.cc/4BLA-75G4.

107 *See* Lawrence P. Schnapf, *Institutional Controls (ICs) Play an Important Role in Site Cleanups*, *in* BROWNFIELDS LAW & PRACTICE § 27.01[1] (Michael B. Gerrard ed., 2014).

108 *Id.*

109 *Id.*

Corrective Action (RBCA) standards.[110] This use of IC/ECs creates liabilities for failure to maintain them, liabilities that can last in perpetuity.[111] SPL policies typically exclude liability arising out of failure to maintain IC/ECs, and some exclude anything having to do with ECs, such as installation or operation. In my experience, many underwriters attach these exclusions to SPL quotes automatically with no room for debate, whenever IC/ECs are part of a remedy. This means that, together with dubious reopener coverage, the policies exclude most post-remedial liability.[112]

IV. Filling the IC/EC Gap

The post-remedial gap can be filled by tailoring policies to the elements and benefits of some current VCPs and, with respect to IC/ECs in particular, using the best methods of maintaining the controls as underwriting requirements. An endorsement to the SPL policy can provide IC/EC liability coverage conditioned upon use of those best methods.

A. Elements and Benefits of Current VCPs

Today, most states have VCPs, which are generally less variable than when the 1997 GAO Report was issued. They share many basic elements designed to benefit brownfields projects;[113] however, significant variations can manifest in the details of these elements.[114] The shared elements are generally described below. Tailoring policies to the elements and benefits of particular VCPs can help fill the post-remedial gap.

1. Streamlined Investigatory Procedures

VCPs generally seek to minimize investigation and remediation costs by authorizing streamlined procedures. Although each state has its own tailored procedures, they usually include:

(1) Submission of the VCP application, including site investigation reports and remedial action work plans, to the state agency;
(2) Determination of eligibility by the agency;
(3) Creation of a cleanup agreement between the volunteer and the state;
(4) Remediation of the site by the volunteer; and
(5) Issuance by the agency of an NFA, CNS, or COC once the agency has determined that agreed upon remediation standards have been met.[115]

In general, it is much easier to obtain appropriate and cost-effective coverage for sites enrolled in VCPs with genuinely streamlined procedures. Streamlined procedures

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110 *Filling the Key Gaps in Brownfields Insurance*, *supra* note 12, at § 28.03[3][a], [3][b][ii].
111 *Id.* at § 28.03[3][a], [3][b][ii].
112 *Id.* at § 28.03[3][b][ii].
113 *State Voluntary Cleanup Programs (VCPs)*, *supra* note 69, at § 17.01[1].
114 *Id.*
115 Deborah A. Sivas, *Procedures for Conducting a VCP*, *in* Brownfields Law & Practice § 17.03 (Michael B. Gerrard ed., 2014) [hereinafter *Procedures for Conducting a VCP*]; Lawrence P. Schnapf, *Financial Incentives Play Increasingly Important Role in Brownfields Redevelopment*, *in* Brownfields Law & Practice § 27.01[2][a] (Michael B. Gerrard ed., 2014).

provide predictability and usually a speedier remedial process, which in turn permits coverage to be timed most advantageously.[116]

2. RBCAs and ICs/ECs

Most VCPs establish RBCA standards that take future land use into account.[117] The use of RBCA standards allows residual contamination to be left in place provided that the contaminated soil or groundwater is subject to IC/ECs that reduce the risk of exposure.[118] However, despite such controls, uncertainty exists regarding their effectiveness, and ineffective controls can cause reopener.[119] In addition, the lack of state oversight to ensure compliance is a concern.[120] Contracting parties need to establish a mechanism for enforcing IC/ECs as state environmental authorities often lack resources to exercise regular oversight.[121]

As explained below, insurance coverage for IC/EC risks can provide an enforcement mechanism. This is done by predicating coverage on the best methods of maintaining IC/ECs, bundling these methods with the insurance policy, and allowing an MGA to serve as the risk manager by hiring an engineering company to perform the maintenance services.

3. Reduced Levels of Governmental Oversight

Most VCPs claim to reduce governmental oversight, but this is highly variable.[122] Many states require "periodic updates and approvals, and some insist on an ongoing supervisory role," while others delegate authority to licensed professionals who use state protocols to "ensure that the cleanup is performed to state standards."[123] Some states eschew enforcement during the remediation period. For example, the Texas Commission on Environmental Quality may not initiate an enforcement action against an applicant in compliance with a VCP agreement for any contamination or release that is the subject of the agreement.[124]

A lack of enforcement means a lack of regulatory risk prior to closure. The lack of regulatory risk decreases, and the risk of claims for coverage of cleanup costs from unknown conditions lessens, particularly for sites in programs with very thorough investigative procedures.

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116 The New York City VCP is a particularly streamlined and speedy program. *See, e.g.*, NYC Office of Environmental Remediation, NYC Voluntary Cleanup Program, http://www.nyc.gov/html/oer/html/voluntary-cleanup-program/vcp.shtml (last visited July 19, 2015), *archived at* http://perma.cc/PN7P-GBTM.

117 *See State Voluntary Cleanup Programs (VCPs)*, *supra* note 69, at § 17.01[2], [4][b].

118 Schnapf, *supra* note 115, at § 27.01[2][a].

119 *Id.* at § 27.01[2][c][i].

120 *Id.* at § 27.01[2][c][iii].

121 R. Timothy Weston & Craig P. Wilson, *Determining and Structuring Future Cleanup Obligations*, *in* BROWNFIELDS LAW & PRACTICE § 7.08[3][d][v] (Michael B. Gerrard ed., 2014).

122 *State Voluntary Cleanup Programs (VCPs)*, *supra* note 69, at § 17.01[3].

123 *Id.* (Some of the states opting for the delegation method are Massachusetts, Connecticut, New Jersey, and Ohio.)

124 TEX. HEALTH & SAFETY CODE ANN. § 361.606(e) (West 2013).

4. Liability Protections/Closure

Many state VCPs now offer assurances to volunteers that the state is satisfied with the cleanups, usually in the form of NFAs, COCs, or CNSs.[125] However, some of these assurances—NFAs in particular—fail to eliminate uncertainty about cleanup liability.[126] Most NFAs contain reopeners, which provide that enforcement action is not precluded in certain circumstances, including the discovery of pre-existing, unknown conditions.[127] In addition, liability protections that come with CNSs or some COCs usually only apply to cleanup costs and not to private parties seeking common law tort damages from site owners. Cleanup costs may be limited to those arising from known conditions.[128] Unless the EPA and the state have entered into a Memorandum of Agreement, the EPA could at some point require additional cleanup.[129]

VCPs with stronger closure mechanisms combined with streamlined procedures make the VCP process predictable and allow it to be separated into two phases: pre- and post-remedial. Each phase has different associated liabilities. If coverage is tailored to those specific liabilities, the result can be better coverage, including post-remedial coverage, at a lower price.

5. Financial Incentives

Financial incentives vary by state and can include low interest loans, direct grants, tax abatements and tax credits.[130] States tend to provide these incentives to project that they believe will be of greatest public benefit.[131] For example, Texas state law authorizes municipal tax abatements for certain VCP properties located in reinvestment zones.[132]

Even when financial incentives include or are directed at insurance, they are not often used or have little effect. An example is New York's insurance tax credit that was phased out in the 2015 New York Brownfield Cleanup Program Reforms.[133]

B. The Best Methods of Maintaining IC/ECs

In addition to taking advantage of some of the elements and benefits of VCPs, another important way of filling the IC/EC coverage gap is to make the best methods of maintaining IC/EC's available to underwriters as requirements for coverage.

There is some agreement among environmental regulators and consultants that the best methods for IC/EC maintenance are found in a program that combines monitoring and certification by a qualified engineering company to ensure that the controls continue to be effective.[134] A 2010 West Virginia report on ICs refers to this approach as

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125 *State Voluntary Cleanup Programs (VCPs)*, *supra* note 69, at § 17.01[4][a].
126 *Id.* at § 17.01[4][b].
127 *Id.*
128 *Id.* at § 17.01[4][b]-[c].
129 *See id.* at § 17.01[5].
130 *Id.* at § 17.01[6].
131 *Id.*
132 Tex. Tax Code Ann. § 312.211 (West 2013).
133 N.Y. Dept. Envtl. Conservation, *2015 Enacted Budget Brownfield Cleanup Program Reforms* (2015), *available at* http://www.dec.ny.gov/chemical/101350.html (last visited June 21, 2015), *archived at* http://perma.cc/3UUP-YWVB.
134 *Preparing Institutional Controls*, *supra* note 18, at 10.

"Third Party Inspections/Certifications."[135] The EPA's guidance issued in 2002 and later in 2012 recommends a combination of monitoring, inspections, and certifications.[136] However, only a few states (e.g. New Jersey and New York) require monitoring and certification to preserve the remedy.[137] As stated above, some states do not mandate any method whatsoever for maintaining IC/ECs.

Annual certification can provide powerful assurances that the controls are maintained.[138] The engineering company is responsible for annually certifying that the IC/ECs are protective of human health and the environment.[139] Based on monitoring activities, the engineer certifies that controls are protective. Should there be a breach that causes exposure, the breach will have to be repaired so that recertification is possible.[140] Provided the engineer is competent and well versed in IC/EC maintenance, his or her certification should instill confidence that the controls have been maintained. Yet the certification is only so good as the monitoring program on which it is based.

Monitoring can be enhanced if combined with another highly effective method of maintaining IC/ECs—the One-Call System. Five states have one-call or "call before you dig" laws requiring a phone call or, increasingly, electronic notice of a planned dig. The EPA has recognized the value of a similar system for IC notification, which it has used increasingly at environmental sites.[141] Such a reporting system can prevent breaches as described above by continuously monitoring the site for any activity that could potentially cause a breach. As the EPA has recognized, this can be accomplished through a computerized, web-based tracking and notification system.[142]

C. IC/EC Liability Coverage Endorsement

Coverage for IC/EC liability based on the best techniques described above is now afforded under SPL policies covering pre-existing known and unknown conditions. An

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135 W. VA. DEP'T OF ENVTL. PROT., WV INSTITUTIONAL CONTROLS FOCUS GROUP INTERIM REPORT 18 (Sept. 9, 2010), *available at* http://www.dep.wv.gov/dlr/oer/voluntarymain/Documents/WVDEP%20IC%20Focus%20Group%20Interim%20Report%209%2010%20Final.pdf, *archived at* http://perma.cc/686U-F99X.

136 *Implementing, Monitoring, and Enforcing Institutional Controls*, *supra* note 18, at 17; *Preparing Institutional Controls*, *supra* note 18, at 5, 10.

137 N.J. STAT. ANN. § 58:10B-13(a), (g) (West 2015); *Filling the Key Gaps in Brownfields Insurance*, *supra* note 12, at § 28.03[3][b][1].

138 *Id*.

139 *Id*.

140 *See id*.

141 Mike Sowinski, *Slowly But Surely: One Call Systems Increasingly Used for Environmental Cleanup Sites* (Terradex May 9, 2012), http://blog.terradex.com/2012/05/09/slowly-but-surely-one-call-systems-increasingly-used-for-environmental-cleanup-sites/, *archived at* http://perma.cc/WV3P-VTPY; U.S. Envtl. Prot. Agency, Office of Solid Waste and Emergency Response (OSWER), *OSWER Directive 9355.7-18: Recommended Evaluation of Institutional Controls: Supplement to the "Comprehensive Five-Year Review Guidance"* 3-4 (Sept. 13, 2011), http://www.epa.gov/superfund/cleanup/postconstruction/641333.pdf, *archived at* http://perma.cc/VTP6-LG36.

142 U.S. Envtl. Prot. Agency, OSWER Fact Sheet: Entering Institutional Controls into One-Call Systems (July 2010), http://www.epa.gov/oswer/docs/iwg/onecall_systems.pdf, *archived at* http://perma.cc/4QVP-XBYS.

endorsement to the policy excludes liability for failure to monitor, maintain, or enforce IC/ECs, except where an approved engineering company: (1) continuously monitors the site for actual or potential breaches, alerts the insured and insurer to such breaches, and produces a plan for their remedy; and (2) annually certifies the protectiveness of the IC/ECs and their consistency with the remedial plan. This language builds a loss control and claims prevention process into the policy. If the controls are continuously monitored for potential breaches, and alerts are given, the likelihood of a claim is virtually eliminated.

However, the language of the endorsement raises serious implementation issues. To begin with, the continuous monitoring required by the endorsement mandates the use of a system like Terradex's patented web-based tracking system.[143] The first question is therefore whether anyone will buy a policy that requires the additional costs of such a system. There is also the question of how the Terradex loss control services are incorporated into the policy as the insurer's loss control, i.e., how to ensure that the alerting and reporting system is implemented with respect to the policy. My experience is that many changes can occur in the course of ten years; brokers, engineers, lawyers, and insureds can change. The usual system of the client separately hiring a broker to place coverage, an engineering company to perform the monitoring, and a lawyer to negotiate the PSA is too fragmented. A risk manager is needed throughout the whole process including the loss control process.[144]

But who should be the risk manager? The answer to that question is the insurance company, or a Managing General Agent (MGA) for the insurance company. An MGA is a specialized type of insurance broker or agent in which an insurer vests underwriting authority and which performs certain functions that insurers ordinarily handle such as underwriting, pricing, settling claims, and loss control.[145] Examples of environmental MGAs include ECS (now XLCatlin), Freberg Environmental, and Beacon Hill.

As described in a blog on the Terradex website, the MGA provides risk management by bundling Terradex's loss control services with the SPL policy and procuring those services through the SPL proposal.[146] The MGA will hire Terradex under a ten year Master Services Agreement to include the web-based monitoring services as well as inspection and certification services, with predictable fees. The quote will include costs for these loss control services charged back to the insured as a separate loss control fee. In this way, the premium will be adjusted downward to compensate for the loss control fees, the unlikelihood of a claim, and the elimination of the usual reduplication of engineer-

143 Sowinski, *supra* note 141.

144 I learned this lesson with respect to a 10 year post-remedial policy for a TCE-contaminated groundwater site in New York that had received a COC. It was well implemented at the risk transfer stage, but not so well thereafter due to changes in or a lack of personal relationships, particularly mine with the buyer. Three years into the policy period, I learned that the site was being sold in three weeks and the approved engineering company had changed. The engineer who had been doing the work had taken the business with him to a new companyhe subsequently told me that he knewnothing about the insurance policy.

145 *IRM Glossary*, *supra* note 10.

146 Terradex, *supra* note 24.

ing services in the underwriting of these policies.[147] By hiring Terradex under a Master Services Agreement, the MGA can maintain control over implementation of the process and thus can assist the insured in complying with its COs.[148]

Use of an environmental structured settlement can have the same effect and may be preferable for large transactions and insureds. In a structured settlement, the net present value of known remediation or monitoring costs funds payments over 20 or 30 years through annuities provided by a life insurance company that are distributed through a trust.[149] This mechanism can remove the liability from the client's balance sheet.[150]

The endorsement raises another question;, it does not address the long-term element in long-term stewardship. That element can be addressed by attaching a renewal endorsement to a 10 year policy. I have observed that some underwriters are willing to offer such an endorsement, depending upon the acceptability of the overall risk. Typical endorsements promise to offer terms on renewal if certain conditions are met: the insurance company must still be in business and still writing the same line of coverage, the insured must have complied with policy conditions, and there cannot have been more than a certain number of claims or percentage of losses. Insurers who provide the post-remedial coverage described above have indicated willingness to add such a renewal endorsement to the policies.

D. EXAMPLES

1. TAILORING THE QUOTE TO FIT THE VCP

The following discussion is based on my experience working as an environmental insurance broker on a quote for a New Jersey site that was not quite ready for closure. It illustrates successful manuscripting of post-remedial coverage.

A developer was interested in buying a former machinery manufacturing site in New Jersey where the prior owner (also the Responsible Party (RP)) had been conducting a cleanup under the Industrial Site Recovery Act (ISRA) since the mid-1990's. In 2012, the case was transferred to the Licensed Site Remediation Professional (LSRP) program pursuant to New Jersey's Site Remediation Reform Act.[151] The prior owner's LSRP applied for a Classification Exception Area (CEA), which was granted with "indeterminate" duration. A CEA is an IC that provides notice of groundwater pollution in a localized area caused by a discharge at a contaminated site where the groundwater contamination is being addressed through natural attenuation.[152] The LSRP has since ap-

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147 Insurers pay in-house or outside engineers to provide underwriting support, particularly for complex risks, which requires revisiting and repeating the entire risk analysis process.

148 *See* Terradex, *supra* note 24.

149 Paul J. Lesti, *Environmental Structured Settlements* (Lesti Structured Settlements, Inc. April 11, 2007). http://www.lesti.com/files/lestipaul_financially_guarantee_l_t_stewardship_obligations_april_11_2007__rtm_.pdf, *archived at* http://perma.cc/N8YV-MSZF.

150 *Id.*

151 N.J. STAT. ANN. § 58:10C (2014).

152 N.J. Dept. Envtl. Prot., Final Guidance on Designation of Classification Exception Areas 2-3 (Nov. 1998), http://www.nj.gov/dep/srp/guidance/cea/ceaguid2.pdf, *archived at* http://perma.cc/V9KS-229J. This guidance has not been updated for some time. *See* N.J. Dept. Envtl. Prot., *Ground Water Classification Exception Area (CEA) Guidance Document: Document Description and Interim Update Information* (2013), http://www.nj.gov/dep/srp/guidance/cea/cea_guide.htm (last visited June 21, 2015), *archived at* http://perma.cc/HA4J-UJ3N.

plied for a Response Action Outcome (RAO), which will not be issued until NJDEP approves the Remedial Action Permit (RAP) required for all sites with ICs or ECs. To comply with the permit, the permittee must perform periodic monitoring and biennial certification of IC/EC protectiveness.

There were two odd things about this matter from a transactional perspective. First, the RP had indemnified the seller for pre-existing known conditions, but the indemnity did not necessarily transfer to the current buyer. Second, the seller was largely financing the seller's purchase. What was driving the need for insurance was the buyer's discomfort with assuming post-remedial environmental risk absent indemnity protection.

My discussion with the buyer's environmental lawyer identified two environmental issues of concern to her client: (1) chlorinated solvents in the groundwater being remediated by natural attenuation under a CEA (an IC); and (2) unknown contamination. In insurance terms, the chlorinated solvents raised reopener and IC/EC liability coverage issues.

I obtained a quote from Beazley, to my knowledge the only carrier at the time actively providing IC/EC coverage. Basic coverage in the proposal was for: (1) third party bodily injury, property damage, and cleanup costs from pre-existing known and unknown conditions; and (2) first party cleanup costs due to unknown conditions triggered by discovery. It was important that the discovery trigger remained intact and no other exclusions, such as for Voluntary Site Investigations, were added that might complicate a subsequent sale. While the current buyer planned no excavation or redevelopment that might reveal unknown conditions, a future buyer might want to do invasive investigations.

An endorsement in the quote excluded cleanup costs due to chlorinated solvents in groundwater with reopener language that said that if an NFA were issued, the endorsement "may be deleted or modified . . . upon the Underwriters' review and approval . . . which approval shall not be unreasonably withheld or delayed."[153] This language was improved by substituting RAO for NFA. Doing so was important since RAO's provide much more certainty than NFAs. To draft RAOs, LSRPs must use a "shell document" and follow it exactly with a few allowable variations.[154] Also, the fact that an LSRP was the regulatory agency precluded any unexpected enforcement before the RAO was issued. Although I would have preferred the language simply to state that Underwriters would remove the exclusion, the combination of the RAO change, the "will not unreasonably withhold or delay" language, and discussions with the underwriter, satisfied me that the exclusion would indeed be removed when the RAO was issued.

The new edition of the Eclipse policy form attached to the quote had an exclusion for "failure to monitor, maintain or enforce the Institutional Controls or Engineering Controls for a Covered Location." This was troubling at first, but, in fact, the presence of the exclusion was a good, not bad, sign. It signaled that Beazley, which as stated above, was at the time the only carrier actively providing IC/EC coverage, was open to modifying the exclusion. Since the insured had no control over maintenance of the CEA, the

153 On file with author.

154 *See* N.J. Dept. Envtl. Prot., Site Remediation Program, Guidance for the Issuance of Response Action Outcomes, 20-26 (May 25, 2011), http://www.nj.gov/dep/srp/guidance/srra/rao_guidance.pdf, *archived at* http://perma.cc/2WPF-KPW5.

underwriter agreed to inserting "by the insured" in the exclusion in the second version of the quote.

2. Integrating Post-Remedial Insurance into the Transaction

The following discussion illustrates my experience in working with an environmental lawyer who understood how to use post-remedial insurance to resolve contentious issues in the settlement of a dispute involving a site in Massachusetts.

The site had been undergoing a cleanup since the 1990's under federal law and a state VCP. The former owner and RP, a large multi-national company, was in negotiations with the current owner (a City) over the scope of the final Remedial Plan, which had inconsistencies with the City's development plan. The RP needed the City's cooperation with its Activity and Use Limitations (AULs), but the City needed the RP's cooperation with unknown contamination revealed by the City's development activities. The RP used a post-remedial policy quote as a bargaining chip. Since the policy would cover both the RP's AULs and the City's unknown contamination, the RP proposed that the two parties split the premium. The City consented to the proposal and the dispute was settled.

V. Conclusion

A product is available that can fill the post-remedial/Continuing Obligations hole in the SPL policy. It is basically the same SPL policy that first appeared in 1995 and is available today, ten years later, but with an endorsement covering IC/EC liability. The coverage in the endorsement is conditioned upon an approved engineering company using the best methods of maintaining IC/ECs, including a web-based continuous monitoring and reporting system as well as annual certification. Once the product is in place, its loss control system will be properly implemented. An MGA will hire the engineering company that performs the loss control services and will act as risk manager throughout the policy period. In that way, the product provides an IC/EC enforcement mechanism which is otherwise lacking from most state authorities.[155]

There still may remain a question about how to implement this product at the initial risk transfer stage. It should be clear from the first example that implementing such post-remedial insurance policies will usually require considerable tailoring. This is because there are so many variables involved in post-remedial situations other than the usual variables such as types, media, liabilities, and areas of contamination. One is the stage of remediation, which is not always clearly defined. Post-remedial coverage does not only apply to strictly post-remedial sites but is often needed shortly before the closure mechanism will be issued. Other variables include elements of VCPs, particularly the nature of the closure mechanism, which is even more variable from state to state than may have been previously suggested. The state's approach to requiring methods of maintaining IC/EC's is another important variable—from not at all in some states to actual enforcement in New Jersey through a permitting system.

155 *See* Schnapf, *supra* note 115, at § 27.01[2][c][iii].

The other part of initial implementation is fitting the insurance into the indemnity goals of the parties. The second example suggests that environmental lawyers can use post-remedial SPL insurance in the same way they have used pre-closure SPL insurance in the past, as a deal facilitator and bargaining chip. Where IC/EC liability is an issue in a transaction, the policy can be the means of transferring the risk and saving the deal. However, the issue goes beyond the fate of a specific transaction. As stated earlier, "contracting parties need to establish a mechanism" for IC/EC enforcement.[156] That means that the contracting parties' environmental lawyers need to draft provisions that establish that mechanism. If enough of them do so, a solution to the Long Term Stewardship Problem may be within sight.

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156 *Id.*

Legislative and Executive Efforts to Modernize NEPA and Create Efficiencies in Environmental Review

By Helen Leanne Serassio

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I. Introduction

The National Environmental Policy Act (NEPA) recently celebrated its 45th anniversary.[1] However, it faces a looming mid-life crisis and many fundamental questions, including whether it is time for a face-lift, a newer model, or if NEPA is even still necessary. NEPA continues to play an important role in the federal decision-making process by providing the public with an opportunity to comment on and influence proposed federal actions that affect them.[2] Ultimately, the NEPA process can result in better decisions by providing the decision-maker with relevant information concerning both positive and negative impacts of the proposed actions.

Congress passed NEPA in 1969[3] and transformed the federal government's approach to decision-making and the public's role in the decision-making process. NEPA's para-

1 *See* National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321-4347 (2009).

2 *See id.*

3 *See id.* While passed by Congress in 1969, NEPA was signed into law by President Nixon on January 1, 1970.

digm shift reflected a widespread desire to address concerns regarding the worsening state of the human and natural environment.[4] Prior to NEPA's enactment, the primary focus of then-existing environmental law was conservation (rather than pollution) and its effects on human health. By the 1960s, the United States was inundated with a variety of environmental concerns from the Cuyahoga River catching fire, the Santa Barbara oil spill, national forests being clear cut, and the highway system literally dividing communities.[5] Environmental issues were taking center stage in national politics and prompted congressional actions.

Passed with unanimous consent in the Senate, NEPA established a national policy for the environment, required consideration of environmental impacts of federal decision-making, and gave the public access to relevant information.[6] Congress recognized the profound impact of man's activity on the interrelations of all components of the natural environment.[7] Consequently, Congress declared it the continuing policy of the federal government, in cooperation with state and local governments and other concerned public and private organizations, to use all practicable means and measures to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations of Americans.[8] With the passage of NEPA, Congress established the White House Council on Environmental Quality (CEQ)[9] and declared for the first time that federal agencies must consider the environment, in conjunction with other pertinent factors, when making decisions.[10]

In addition to establishing a national policy on the environment, NEPA requires federal agencies to consider the potential impacts of their proposed actions on the envi-

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4 *See id.*

5 *See, e.g.*, Jonathan H. Adler, *The Fable of the Burning River, 45 Years Later*, THE WASH. POST, June 22, 2014, http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/06/22/the-fable-of-the-burning-river-45-years-later, *archived at* http://perma.cc/3FK5-784U; Dan Duray, *The Santa Barbara Oil Spill of 1969: A Lesson in Offshore Drilling*, THE HUFFINGTON POST, July 22, 2008, http://www.huffingtonpost.com/2008/07/14/the-santa-barbara-oil-spi_n_112605.html, *archived at* http://perma.cc/Q2RE-VFSK.

6 *See* 42 U.S.C. §§ 4321-4370(f).

7 *Id.* § 4331(a).

8 *See id.*

9 *See* 42 U.S.C. § 4342. Under NEPA, the CEQ is responsible for implementing NEPA, developing applicable regulations, advising the President on national policies and priorities, and coordinating and resolving disputes among federal agencies' activities relating to the environment. While NEPA did not give the CEQ the authority to implement regulations, President Carter gave the authority to the CEQ in 1977 in Executive Order 11,991, 42 Fed. Reg. 26,967, 26,967 (1977). The CEQ's NEPA regulations apply to all federal agencies and are generic in nature. Each federal agency is required to supplement the CEQ regulations with their own NEPA procedures specific to the agency's unique activities. 40 C.F.R. § 1507.3 (1978). Multiple Supreme Court decisions have held that the CEQ's interpretation of NEPA's requirements is owed "substantial deference" by the courts. *See, e.g.*, Andrus v. Sierra Club, 442 U.S. 347 (1979); Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989); Marsh v. Or. Natural Res. Council, 490 U.S. 360 (1989).

10 *See* 42 U.S.C. §§ 4321-4370(f).

ronment.[11] Moreover, federal agencies must inform the public of the potential significant environmental impacts of their proposed actions and explain how their decisions address these impacts.[12] It is well established that NEPA is a procedural statute and that it does not mandate particular results, but rather establishes a process to ensure that federal agencies take a "hard look" at the environmental consequences of their actions.[13] Once an agency has taken the requisite hard look, it is free to decide that other interests outweigh the environmental costs it has identified.[14] As noted by the Supreme Court, "NEPA merely prohibits uninformed–rather than unwise–agency action."[15] These deceptively simple requirements of NEPA have generated consternation within the federal government, interested stakeholders, and the public as agencies continue to strive to integrate the principles and requirements of NEPA into their decision-making processes.[16]

This article examines recent congressional efforts to modify NEPA and executive branch actions to increase efficiency in NEPA. It also offers some practical suggestions for keeping NEPA effective and relevant as it enters its middle age. Part II of this paper looks at why Congress wants to reform NEPA and the incremental steps it has taken to add efficiencies to individual federal agencies' NEPA review processes. Part III then analyzes how the executive branch has used its administrative power to create NEPA efficiencies with general applicability to the federal government and actions tailored specifically to infrastructure. Lastly, Part VI provides four potential administrative solutions that would result in efficiencies by creating succinct NEPA documents that have a minimal litigation risk.

II. Legislative Efforts to Create NEPA Efficiencies

Since the first Congressional oversight hearing on NEPA in 1998,[17] Congress has been actively working to address concerns that NEPA review hinders efficient decision-

11 *See id.*
12 *See id.*
13 *See Methow Valley*, 490 U.S. at 333.
14 *Id.* at 350.
15 *Id.* at 351.
16 *See id.* at 332.
17 *Problems and Issues with National Environmental Policy Act of 1969: Hearing Before the H. Comm. on Resources*, 105th Cong. (1998), *available at* http://commdocs.house.gov/committees/resources/hii47866.000/hii47866_0f.htm, *archived at* http://perma.cc/TD4M-ZGBX. Interestingly, the focus of the hearing was the Clinton Administration's alleged "neglect, abuse, and avoidance of its NEPA responsibilities." *Id.* (statement of Don Young, Chairman, House Committee on Resources). At the time of the hearing, CEQ had only one person working on administering NEPA and Congress was concerned that CEQ was allowing exemption of NEPA review on federal projects for political reasons. The costs, delays, and inconsistent application of NEPA were debated for the first time and since then have been central issues that the legislative and executive branch and have worked to address.

making by proposing amendments or exemptions to the NEPA process.[18] The genesis of these concerns, which arises from federal, state, and local governments and other interested stakeholders, has been supported by reports on NEPA that document delays in federal decision-making processes.[19] Opponents of NEPA tout the inefficiencies of NEPA by focusing on Environmental Assessments (EAs) and Environmental Impact Statements (EISs) that are thousands of pages long and take several years to finalize.[20] However, the fact that some NEPA documents for usually large, complex, and highly controversial actions take a long time to finalize and generate a voluminous amount of paper does not mean that NEPA is inherently inefficient. The information below shows that most federal actions promptly move through NEPA review.

Some Congressional members appear motivated by the belief that NEPA review causes project delays and, consequently, causes economic harm to the United States. While EAs and EISs receive the brunt of criticism for delaying federal decision-making, the vast majority of federal decisions may use "categorical exclusions" (CEs) established by individual federal agencies.[21] Projects funded under the American Recovery and Reinvestment Act of 2009 (ARRA)[22] illustrate this point.[23] Enacted in 2009, ARRA's goal was to stimulate the economy by providing over $700 billion to various federal agencies to provide contracts, grants, or loans for multiple activities including transportation,

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18 *See, e.g.*, Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594 (2005) [hereinafter *Energy*]; Healthy Forests Restoration Act of 2003, Pub. L. No. 108-148, 117 Stat. 1887 (2003) [hereinafter *Forests*]; Water Resources Development Act of 2007, Pub. L. No. 110-114, 122 Stat. 1041 (2007) [hereinafter *Water 2007*]; Water Resources Reform and Development Act of 2014, Pub. L. No. 113-121, 128 Stat. 1193 (2014) [hereinafter *Water 2014*]; Moving Ahead for Progress in the 21st Century Act, Pub. L. No. 112-141, 126 Stat. 405 (2012) [hereinafter *MAP-21*]; Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Pub. L. No. 109-59, 119 Stat. 1144 (2005) [hereinafter *SAFETEA-LU*].

19 *See, e.g.*, U.S. HOUSE OF REP., RECOMMENDATIONS TO IMPROVE AND UPDATE THE NATIONAL ENVIRONMENTAL POLICY ACT (July 31, 2006), *available at* http://www.arcticgas.gov/sites/default/files/documents/2006-nepa-task-force-recommendations.pdf, *archived at* http://perma.cc/WJ6R-76BN.

20 U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-370, NATIONAL ENVIRONMENTAL POLICY ACT: LITTLE INFORMATION EXISTS ON NEPA ANALYSES (Apr. 2014) [hereinafter GAO], *available at* http://gao.gov/assets/670/662546.pdf, *archived at* http://perma.cc/H4FA-D9AM.

21 Categorical exclusions are categories of actions that federal agencies have demonstrated which do not individually or cumulatively have a significant effect on the environment and, therefore, an EIS or EA is not required. 40 C.F.R. § 1508.4 (1978). CEs typically require very little or no documentation and thus are quickly applied to a proposed action. However, it is important to note that a CE does not exempt a proposed action from other environmental analysis so, for example, if the proposed action is near a historic site, Section 106 analysis would still need to be performed to determine if there is an adverse effect to the historic site.

22 American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009).

23 *See* THE AMERICAN RECOVERY AND REINVESTMENT ACT, BREAKDOWN OF FUNDING (last updated June 2012), *available at* http://www.recovery.gov/arra/Transparency/fundingoverview/Pages/fundingbreakdown.aspx, *archived at* http://perma.cc/322K-PDZU.

infrastructure, energy, environment, and housing.[24] The CEQ tracked federal NEPA reviews for projects under ARRA and found that federal agencies applied CEs for 96% of the 193,000 projects.[25]

In addition to the time it takes to complete NEPA review, the cost of the review has also come under considerable scrutiny.[26] However, limited data exists on the current time and cost involved in preparing an EIS.[27] The general consensus is that EISs have become lengthy and costly documents to prepare, with costs ranging from $250,000 to $2 million.[28] The U.S. Department of Energy (DOE) tracked some cost data associated with NEPA analyses, and a recent U.S. Government Accountability Office (GAO) report highlighted that the DOE data demonstrates the average payment to a contractor to prepare an EIS from 2003 to 2012 was $6.6 million, with a range of $60,000 to as high as $85 million.[29]

These concerns over the time and cost it takes to perform the requisite NEPA analysis have spurred numerous pieces of legislation to amend NEPA and its applicability to specific federal agencies. In response to concerns that NEPA is inefficient and burdensome, Congress has taken a surgical approach to NEPA by enacting legislation that amends specific federal agencies' NEPA procedures or exempts certain federal actions from NEPA review. Agencies that have been impacted by this approach include, but are not limited to: the U.S. Department of Transportation (DOT) (primarily the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA)), the U.S. Department of Energy (DOE), the U.S. Forest Service (USFS), the U.S. Army Corps of Engineers (USACE), and the U.S. Department of the Interior (DOI). Congress sought to address specific delays for certain actions by: (i) creating legislative categorical exclusions for specific federal actions; (ii) mandating project environmental review streamlining processes; (iii) limiting participating agency input; (iv) establishing administrative review requirements and/or limits on judicial review; (v) creating specific agency conflict resolution procedures; (vi) limiting public participation; and (vii) assigning NEPA compliance responsibilities to states.[30]

With this ad hoc approach, Congress has created a complex NEPA compliance matrix. Depending on the proposed federal action, the processes that must be followed for NEPA compliance vary.[31] This is problematic for two reasons. First, if multiple federal agencies are involved in a proposed action in which one agency may be funding a project while another has to issue permits, the process becomes difficult to harmonize to address both agencies' NEPA requirements. Efficiencies in one agency has may be negated by

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24 *See id.*

25 *The Council on Environmental Quality's FY 2013 Funding Request and the Effects on NEPA, National Ocean Policy and other Federal Environmental Policy Initiatives: Hearing on Serial No. 112-100 Before the Comm. on Natural Res.*, 112th Cong. 9 (2012) (statement of Nancy Sutley, Chairwoman, Council on Environmental Quality).

26 GAO, *supra* note 20, at 11.

27 *Id.*

28 *Id.* at 13.

29 *Id.*

30 *See, e.g.*, *MAP-21*, *supra* note 18; *SAFETEA-LU*, *supra* note 18; *Energy*, *supra* note 18; *Water 2014*, *supra* note 18; *Forest*, *supra* note 18.

31 *See* 42 U.S.C. § 4332 (2014).

the other agency's NEPA procedures. For example, if only the lead agency has the authority to limit the number of alternatives it must analyze in the EIS, it may still have to examine additional alternatives to satisfy the cooperating agencies' needs. It is critical to ensure that all agencies' NEPA procedures are met so all of them can use the NEPA document (either an EIS or EA) without having to perform a supplemental analysis prior to adopting the document. Doing so saves time in the decision-making process by decreasing redundancy.

The second difficulty with having different NEPA requirements for various federal agencies is that it can be difficult for the public to determine when and how they can participate in the NEPA process for a specific agency's action because different federal agencies follow different standards. Additionally, for applicants looking for federal funding or approval, it can become challenging to comply with NEPA in a timely manner if they need to spend a significant amount of time identifying and resolving the differences between applicable federal agencies' NEPA requirements.[32]

A. CONGRESSIONAL NEPA REFORM IN THE CONTEXT OF SURFACE TRANSPORTATION

Congress's efforts to decrease the time it takes to complete NEPA review have been influenced by NEPA streamlining concepts created in various surface transportation infrastructure reauthorizations.[33] These concepts include: (i) early coordination between federal agencies, the applicant, and interested stakeholders; (ii) a formal issue resolution process; (iii) delegating authority to states for NEPA compliance; (iv) establishing a litigation deadline; and (v) integration of state environmental review documents into the NEPA process.[34] Since the passage of the Transportation Equity Act for the 21st Century (TEA-21) in June 9, 1998,[35] Congress has included different provisions in each subsequent surface reauthorization bill to make NEPA review more efficient for surface transportation infrastructure projects.[36] It is interesting to note that many of the provi-

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32 For example, the U.S. Army Corps of Engineers (USACE) may limit the scope of its NEPA analysis to the regulatory decision it has to make under a Section 404 permit under the Clean Water Act. This analysis would not include the scope of the rest of the applicants' proposed project. If the applicant needs additional federal approvals and decides to seek funding from another federal agency, it may be surprised to discover that these other federal agencies must analyze the entire scope of the proposed project (and alternatives to the proposed project) in their individual NEPA analysis.

33 *See* H.R. REP. NO. 113-363, pt. 1, at 2, 6-8 (2014).

34 *See, e.g.*, Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, 112 Stat. 107 (1998) [hereinafter *TEA-21*]; *MAP-21*, *supra* note 18; *SAFETEA-LU*, *supra* note 18.

35 *TEA-21*, *supra* note 34. This Act required the Secretary of Transportation to establish a coordinated environmental review process for the Department to work with other federal agencies to ensure that major highway and transit projects were advanced on an agreed upon timeframes. Furthermore, the coordinated process would use concurrent reviews, allowed states to include their environmental reviews in the coordinated environmental review process, authorized the Secretary to approve state requests to provide funding to affected federal agencies to meet established time limits, and created an issue resolution process for when the Secretary of Transportation found that a project-related environmental issue had not been resolved with another federal agency.

36 *See, e.g.*, *MAP-21*, *supra* note 18; *SAFETEA-LU*, *supra* note 18.

sions included in TEA-21 are concepts that the CEQ's NEPA regulations already promote.[37] The primary difference between the two is that Congress provided explicit direction and authority on issue resolution and the use of state environmental documents in the NEPA process for surface transportation projects, whereas the CEQ's NEPA regulation is limited to promoting these concepts. By providing clear statutory authority in TEA-21 for the FHWA and the FTA to use state environmental documents in NEPA analyses, Congress decreased litigation risk for these two agencies over this issue.[38] Congress also authorized the Secretary of Transportation to approve state requests to provide funding to affected federal agencies to meet established time limits.[39] Insufficient staff and resources can lead to delay in environmental reviews.[40] With this provision, Congress began to address the resource challenge that agencies face to engage in timely review and relieved some pressure by creating a new financial resource for these agencies.[41] Consequently, this facilitates timely review of environmental review documents related to specific surface transportation projects.[42]

Congress expanded upon its NEPA streamlining efforts for surface transportation projects with the passage of Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).[43] SAFETEA-LU incorporated significant changes to the environmental review process by creating a new review process for high-

37 For example, Section 1309 of TEA-21 established a coordinated environmental review process for highway and transit projects in which USDOT would work with other federal agencies to ensure a timely review of these projects. *TEA-21*, *supra* note 34. This section emphasized using concurrent rather than sequential reviews, established a dispute resolution process between the Department and other federal agencies, and allowed states the option of including their environmental reviews in the coordinated environmental review process. *Id.* In comparison, the CEQ's regulations provide for: eliminating duplication with state and local procedures, 40 C.F.R. § 1500.5(h), 1506.2 (1978); reducing delay by emphasizing early interagency cooperation, 40 C.F.R. § 1500.5(b) (1978); combining environmental documents with other document, 40 C.F.R. § 1506.4 (1978); and a referral process to CEQ when agencies cannot reach agreement concerning proposed major federal actions that may cause "unsatisfactory environmental effects." 40 C.F.R. § 1504 (1978).

38 *See TEA-21*, *supra* note 34, at 232.

39 *Id.* at 234.

40 Insufficient staff and resources are two of the biggest hurdles federal agencies face when working to meet their NEPA requirements in a timely manner. Budgets of federal agencies continue to, with few exceptions, be decreased by Congress in annual appropriations, yet the workload remains. Statutory provisions, like the one in TEA-21, allow another source of funds for federal agencies; however, this shifts already limited funds from one federal agency to another. Allowing agencies to require applicants to prepare the draft NEPA documents helps address the resource issue; however, agencies still have a major role to play and need staff to review the draft NEPA documents prepared by applicants. Additionally, agencies must fulfill their cooperating agency duties (which include reviewing and commenting on NEPA documents) in a timely manner and this requires having the necessary staff and resources to do so.

41 *TEA-21*, *supra* note 34, at 234.

42 *Id.* at 217.

43 *SAFETETA-LU*, *supra* note 18.

way, transit, and multimodal projects for projects advanced with EISs.[44] FHWA has credited Section 6002 of the SAFETEA-LU for decreasing the average NEPA review time almost by half from 73 months to 36.85 months.[45] Section 6002 also set a 180-day statute of limitations for lawsuits challenging federal agency approvals for a highway or transit capital project.[46] Setting a clear statute of limitations on claims[47] challenging these approvals was significant because federal courts are divided on whether to apply the Administrative Procedure Act (APA)[48] when determining what statute of limitations applies to NEPA cases or whether the doctrine of laches should apply.[49]

SAFETEA-LU has two additional sections that provide states the ability to assume NEPA responsibilities in certain circumstances. Under Section 6004, states could assume responsibility for categorical exclusions after entering into an memorandum of understanding (MOU) with the Secretary of Transportation.[50] Furthermore, Section 6005 established a pilot program for five states, allowing them to apply to DOT to assume almost all DOT environmental responsibilities under NEPA and other environmental laws (excluding the Clean Air Act and transportation planning requirements).[51] By placing direct responsibility for NEPA with states, these two sections go beyond what the CEQ's regulations permit.[52]

With passage of the most recent surface transportation reauthorization in 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21),[53] Congress added new provisions to the environmental streamlining effort to accelerate project delivery. Most

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44 23 U.S.C. § 139 (2012); *SAFETEA-LU*, *supra* note 18, at 1857-65. This includes project initiation, defining the project's purpose and need, coordination and setting a schedule for the review, and establishing a process for identifying and resolving issues. SAFETEA-LU also created the new category of "participating agencies" to give more state, local, and tribal agencies a formal role in the environmental process. *Id.* at 1859-60.

45 OFFICE OF PROJECT DEV. & ENVTL. REVIEW, FED. HIGHWAY ADMIN., U.S DEPT. OF TRANSP., BIANNUAL ASSESSMENT OF SAFETEA-LU SECTION 6002 IMPLEMENTATION EFFECTIVENESS 9 (2010).

46 *SAFETEA-LU*, *supra* note 18, at 1862.

47 23 U.S.C. § 139(l) (2012).

48 Administrative Procedure Act, 5 U.S.C. §§ 501-706 (2011).

49 Some courts argue that, because NEPA violations are brought under the APA, these cases should follow the APA's statute of limitations. *See, e.g.*, Friends of Tim Ford v. Tenn. Valley Auth., 585 F.3d 955, 964 (6th Cir. 2009). Under the doctrine of laches, an environmental action may be barred if; (1) there has been unreasonable delay in bringing suit; and (2) the party asserting the defense has been prejudiced by the delay. *See* Park Cnty. Res. Council, Inc. v. U.S. Dep't of Agric., 817 F.2d 609, 617 (10th Cir. 1987).

50 *SAFETEA-LU*, *supra* note 18, at 1869-72.

51 *Id.* at 1867-72. Five States (Alaska, Ohio, Oklahoma, Texas, and California) were specifically named in Section 6005. The delegation authority is limited to highway projects and is for specific projects within a State or a programmatic delegation. California is the only state to enter into a Memorandum of Understanding (MOU) with the Federal Highway Administration, the agency to which the U.S. Department of Transportation delegated the authority to enter into MOUs.

52 *Compare id.* at 1868-69, *with* 40 C.F.R. §§ 1501.5, 1501.6 (1979). The CEQ's regulations allow states to be joint-led and cooperating agencies but do not allow federal agencies to assign responsibility for NEPA compliance to states.

53 *MAP-21*, *supra* note 18.

notably, Congress created new CEs for emergencies, projects within the right-of-way, and projects with limited federal assistance.[54] It also made Section 6005 of SAFETEA-LU a permanent program, opened the program to any state that wants to assume NEPA responsibilities, amended the statute of limitations to 150 days, created an issue resolution process that fines federal agencies for not making decisions in a timely manner, codified the use of planning products in NEPA, and mandated combining the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) to the "maximum extent practicable."[55] The project delivery provisions in MAP-21 illustrate Congress's interest in providing states a greater role in the NEPA process, requiring federal agencies to engage early in the NEPA process and to resolve issues that delay timely decision-making, and decreasing duplication of efforts in the environmental review process.[56]

B. Expanding Surface Infrastructure NEPA Efficiencies to Other Federal Actions

The perceived success of SAFETEA-LU and MAP-21 in expediting project review has prompted inclusion of similar concepts in recent bills that would apply beyond transportation infrastructure projects, notably the Reducing Environmental Barriers to Unified Infrastructure and Land Development Act of 2013 ("REBUILD Act"),[57] the Responsibly and Professionally Invigorating Development Act of 2013 ("RAPID Act"),[58] and the Federal Permitting Improvement Act of 2013.[59]

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54 *Accelerating Project Delivery*, Fed. highway Admin., http://www.environment.fhwa.dot.gov/strmlng/index.asp (last visited Mar. 1, 2015), *archived at* http://perma.cc/46H5-HSYN. While not the first time Congress has done this, it is unusual for Congress to create CEs. Under the CEQ's NEPA regulations, an agency can develop a CE for specific actions if it can demonstrate that, through time and experience, these activities normally do not have a significant impact on the environment. After getting the CEQ's approval for the new CE, a federal agency then has to publish it for public comment before finalizing the CE. By statutorily creating a CE, Congress bypasses the CEQ's oversight and eliminates the possibility of the public to comment on the appropriateness of the CE. *See NEPA and Project Development*, Fed. Highway Admin., http://environment.fhwa.dot.gov/projdev/docuce.asp (last visited Mar. 1, 2015), *archived at* http://perma.cc/C23G-6KTP; Memorandum for Heads of Federal Departments and Agencies on Establishing and Applying Categorical Exclusions under the National Environmental Policy Act (Feb. 18, 2010), *available at* http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-categorical-exclusions-draft-guidance.pdf, *archived at* http://perma.cc/2DFB-SAMN.

55 *See MAP-21*, *supra* note 18, at Subtit. C. Under the CEQ's regulations, no decision on a proposed federal action may be made until thirty days after publication of the notice of the FEIS. 40 C.F.R. § 1506.10(b)(2) (1979). FEIS documents are issued by a federal agency after the agency has received and addressed comments to the Draft EIS. 40 C.F.R. § 1502.9 (1978). The Record of Decision (ROD) states what the agency's decision is, identifies what alternatives were considered by the agency, and describes whether all practicable means to avoid or minimize environmental harm from the selected alternative have been adopted, and if not adopted, the reason why. If mitigation is adopted, the document will describe monitoring and enforcement for the mitigation. 40 C.F.R. § 1505.2 (1978).

56 *See MAP-21*, *supra* note 18, at Subtit. C.

57 *See* H.R. 2097, 113th Congress (2013).

58 *See* H.R. 2641, 113th Congress (2013).

The REBUILD Act gave federal agencies the authority to delegate responsibilities to state governments.[60] The primary objective of the RAPID Act is to provide for streamlined federal approvals for construction projects.[61] The RAPID Act would require only one NEPA document to be prepared for any required federal approvals, allow lead agencies to adopt environmental documents prepared by a state, outline the role of participating agencies, limit the alternatives to be analyzed, require establishment of a coordination plan for coordinating public and agency participation and commenting, set deadlines for environmental reviews, establish an issue resolution process, and set a limitation on judicial review.[62] The Federal Permitting Improvement Act of 2013 would apply to any construction activity with an initial investment of more than $25,000,000 that requires authorization or review by a federal agency and involves renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, or other sector as decided by the Federal Chief Permitting Office.[63] The Federal Permitting Improvement Act contains streamlining procedures similar to those in the RAPID Act and would also create a Federal Permitting Improvement Council tasked with improving coordination between agencies and would require the maintenance of on online database to track the status of federal reviews and authorizations for applicable projects.[64]

While these bills took their inspiration from SAFETEA-LU and MAP-21, they also added new concepts that could have dramatic impacts on federal interagency review, judicial review, and the quality of federal decision-making.[65] For example, under the RAPID Act, if a federal agency declines an invitation by the lead agency to be a participating agency, it is precluded from submitting comments on any document prepared under NEPA.[66] This provision does not recognize the fact that agencies may decline an invitation to participate for various reasons, including a lack of resources and staff.[67] In

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59 *See* S. 1397, 113th Congress (2013).

60 *See* H.R. 2097, 113th Congress (2013).

61 *See* H.R. 2641, 113th Congress (2013). The REBUILD Act would: (1) allow applicants to prepare their own NEPA documents; and (2) allow only one EA or EIS to be prepared for a project. All federal agencies with associated actions would be required to rely on the EA or EIS prepared by the lead agency, create a one-year deadline for EAs and a two-year deadline for EISs, and would place limits on the range of alternatives, public and interagency commenting, and judicial review.

62 *Id*.

63 *See* S. 1397, 113th Congress (2013).

64 *See id.* As noted by one NEPA scholar, it is widely acknowledged that the coordination problem between federal agencies on large infrastructure projects is a "root cause of much of the permitting dysfunctionality that surrounds reviews of major infrastructure projects." *See* David J. Hayes, *Leaning on NEPA to Improve the Federal Permitting Process*, 45 ENVTL. L. REP. NEWS & ANALYSIS 10018, 10019 (2015). The Federal Permitting Improvement Act would address federal coordination issues by codifying administration efforts in this area.

65 *See* H.R. 2097, 113th Congress (2013); H.R. 2641, 113th Congress (2013); S. 1397, 113th Congress (2013).

66 *See* H.R. 2641, 113th Congress (2013).

67 *See id.* The CEQ's NEPA regulations recognize the reality that agencies are constrained by resources by providing that an agency may decline a request to be a cooperating agency due

other words, this could force agencies to overcommit resources and staff to preserve the ability to comment on the NEPA document for the proposed project.[68]

Another problematic provision in the RAPID Act would prohibit lead agencies from acting upon, responding to, or including any comment submitted by a participating agency that concerns matters outside the authority and expertise of the participating agency.[69] This provision is incredibly shortsighted. Participating agencies often provide valuable input into a NEPA document beyond the authority of their agency and can assist lead agencies in spotting issues that can be resolved prior to releasing the document for public comment.

The deadlines set in the proposed acts could lead to a de facto approval of actions with environmental impacts.[70] These provisions set arbitrary and unrealistic deadlines for approvals and include a provision that failure to act by a federal agency will be treated as an approval of the permit, license, or similar application that requires federal approval.[71] As a result, Congress is threatening the federal government's ability to make informed decisions by placing strict time limits on NEPA review.

Requiring agencies to make quick decisions does not guarantee that agencies are making good or informed decisions. Furthermore, these provisions would add more workload to federal agencies without providing the necessary resources and without ensuring that projects receive the critical input that permitting agencies provide. As the 114th Congress sets its agenda, NEPA reform will inevitably remain on the forefront,[72] and Congress should remember the fundamental principle of NEPA to ensure informed decision-making and public involvement and not undermine these valuable concepts.

III. Executive Branch Efforts to Create NEPA Efficiencies

Over the past decade, the executive branch, primarily through the CEQ's leadership, has been seeking efficiencies by increasing interagency coordination,[73] avoiding redundancy in environmental review,[74] and facilitating timely resolution of interagency con-

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to other program commitments precluding the agency's involvement. 40 C.F.R. § 1501.6(c) (1978).

68 *See* H.R. 2641, 113th Congress (2013).

69 *See id.*

70 *See id.*

71 *Id.* § 560(i)(4)(c).

72 H.R. 211, 114th Cong. (2015). Representative Ken Calvert reintroduced the REBUILD Act on January 8, 2015 to demonstrate the on-going Congressional interest in NEPA reform.

73 A recent report by the Administration has identified lack of interagency coordination as one of the main reasons that infrastructure projects advance so slowly. *See generally* Steering Comm. on Fed. Infrastructure Permitting and Review Process Improvement, Implementation Plan for the Presidential Memorandum for Modernizing Infrastructure Permitting (May 2014), *available at* http://www.permits.performance.gov/pm-implementation-plan-2014.pdf, *archived at* http://perma.cc/7CXY-533M.

74 *See, e.g.*, Presidential Memorandum, Office of the Press Sec'y, White House, Modernizing Federal Infrastructure Review and Permitting Regulations, Policies, and Procedures (May 17, 2013), *available at* http://www.whitehouse.gov/the-press-office/2013/05/17/presidential-

flict.[75] While some of the actions have been of sector-specific Executive Orders or Presidential Memorandums, the CEQ took the majority of these actions under its authority to implement NEPA by issuing new guidance and facilitating actions that increase coordination and communication throughout the NEPA review process.[76] As discussed below, recent initiatives have focused on early coordination between federal agencies and stakeholders, negotiating timelines to review critical documents and decisions, expediting issue resolution, and utilizing technology to create efficiencies in gathering information and NEPA tracking.[77]

Infrastructure projects have been the focus of multiple executive actions seeking to expedite project delivery and environmental review.[78] To start, President George W. Bush signed Executive Order 13,274, "Environmental Stewardship and Transportation Infrastructure Project Reviews," on September 18, 2002, to emphasize the importance of expedited review for high-priority transportation projects.[79] Executive Order 13,274 established an interagency task force to coordinate and resolve any review and permitting issues in a timely manner.[80] It gave high-level attention to high-priority transportation projects and allowed critical issues that could delay approval to be quickly elevated and resolved to prevent unnecessary delay of the approval.[81] One problem with this approach was its limited applicability to high-priority projects.[82] While focusing resources can result in timely approval of designated projects, not all projects can be designated high-priority.[83] With the limited resources that federal agencies have, other proposed projects will inevitably experience delay before the priority projects can be advanced.[84]

On August 31, 2011, President Barack Obama introduced a Presidential Memorandum, "Speeding Infrastructure Development through More Efficient and Effective Permitting and Environmental Review,"[85] and also signed Executive Order 13,604[86] on March 22, 2012, both of which have expanded the concept of giving priority review to

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memorandum-modernizing-federal-infrastructure-review-and-pe, *archived at* http://perma.cc/MD2G-ENP5.

75 Exec. Order No. 13,604, 77 Fed. Reg. 18,887, 18,887 (2012).

76 *See, e.g.*, Final Guidance on Improving the Process for Preparing Efficient and Timely Environmental Reviews Under the National Environmental Policy Act, 77 Fed. Reg. 14,473 (Mar. 12, 2012) (to be codified at 40 C.F.R. § 1500).

77 For an in-depth discussion on the challenge of multiple-agency review, *see* Hayes, *supra* note 64, at 10,019-20.

78 *See, e.g.*, Presidential Memorandum, *supra* note 74; Exec. Order No. 13,604, 77 Fed. Reg. 18,887 (2012); Exec. Order No. 13,274, 67 Fed. Reg. 59,449 (2002).

79 Exec. Order No. 13,274, 67 Fed. Reg. at 59,449.

80 *Id.*

81 *Id.*

82 *See generally* Exec. Order No. 13,274, 67 Fed. Reg. 59,449.

83 *See generally id.*

84 The Task Force sought to develop tools that could be applied beyond the high-priority projects and created the Integrated Planning Working Group. The working group examines the challenges to linking local planning activities and decisions with project-specific environmental reviews, approvals, and permitting processes.

85 Presidential Memorandum, Office of the Press Sec'y, White House, Speeding Infrastructure Development through More Efficient and Effective Permitting and Environmental Review (Aug. 31, 2011), *available at* http://www.whitehouse.gov/the-press-office/2011/08/31/presi-

certain projects.[87] The Presidential Memorandum broadened the focus beyond transportation projects to infrastructure projects identified as high-priority and job-creating.[88] Executive Order 13,604 built upon lessons learned from the Presidential Memorandum and expanded its applicability to all infrastructure projects, not just high-priority and job-creating infrastructure projects.[89] This Executive Order directed federal agencies to "take all steps within their authority, consistent with available resources, to execute federal permitting and review processes with maximum efficiency and effectiveness, ensuring the health, safety, and security of communities and the environment while supporting vital economic growth."[90] Executive Order 13,604 also directed that these steps must be transparent, consistent, and predictable, and that agencies should agree to set and meet timelines for completing reviews.[91]

Under these efforts, the Federal Infrastructure Projects Dashboard ("Dashboard") was created.[92] This tool allowed federal agencies to publicly track schedules and status information on pending federal actions for the expedited infrastructure projects and increased transparency and accountability by providing public access to information that it did not have before.[93] By publicly tracking federal reviews and decisions on key aspects of a project, federal agencies are held accountable for any delay and thus have an incentive to resolve issues in a timely manner.[94] Another benefit of the Dashboard is that it increases public involvement in the federal decision-making process by providing central access to information on the proposed projects, the federal environmental review processes, and the federal agencies involved in environmental and permitting decisions on the project.[95] At first blush, how the role of the Dashboard results in efficiencies in the NEPA review process may not be apparent. The Dashboard assists federal agencies by requiring that they post their agreed-upon schedules for a specific project as well as for the detailed milestones to meet.[96] Once this schedule is posted, agencies are publicly

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dential-memorandum-speeding-infrastructure-development-through-more, *archived at* http://perma.cc/3CN9-CU9X [hereinafter *Speeding Development*].

86 Exec. Order No. 13,604, 77 Fed. Reg. 18,887, 18,887 (2012).

87 *Id.*

88 *Speeding Development*, *supra* note 85, at 1.

89 Exec. Order No. 13,604, 77 Fed. Reg. at 18,888.

90 *Id.* at 18,887.

91 *Id.*

92 *Id.*

93 *See* WHITE HOUSE, IMPLEMENTING EXECUTIVE ORDER 13604 ON IMPROVING PERFORMANCE OF FEDERAL PERMITTING AND REVIEW OF INFRASTRUCTURE PROJECTS: A FEDERAL PLAN FOR MODERNIZING THE FEDERAL PERMITTING AND REVIEW PROCESS FOR BETTER PROJECTS, IMPROVED ENVIRONMENTAL AND COMMUNITY OUTCOMES, AND QUICKER DECISIONS 2 (June 2012), *available at* http://www.permits.performance.gov/sites/all/themes/permits2/files/federal_plan.pdf, *archived at* http://perma.cc/SB56-WZKH.

94 *Id.*

95 *See id.*

96 Press Release, Office of the Press Sec'y, White House, Fact Sheet – Building a 21st Century Infrastructure: Modernizing Infrastructure Permitting (May 14, 2014), *available at* http://www.whitehouse.gov/the-press-office/2014/05/14/fact-sheet-building-21st-century-infrastructure-modernizing-infrastructu, *archived at* http://perma.cc/V8AB-7BAQ.

held responsible for keeping to the schedule or documenting the causes of any delay.[97] The increased level of accountability helps to ensure that federal agencies are not unnecessarily sidetracked in their NEPA review process. Since its creation, over thirty high-priority federal infrastructure projects have completed their environmental review and permitting process significantly quicker than before.[98]

The NEPA process itself is inherently efficient because it provides the platform for agencies to coordinate permitting and planning activities at all levels of the government, thereby avoiding duplicate or sequential reviews and providing the opportunity for potential issues to be identified and resolved early in the process.[99] However, NEPA documents have become voluminous and unwieldy today, and the lack of early and continued coordination between agencies results in unnecessary sequential reviews and delays in the decision-making process. The CEQ has taken multiple steps to advance broad reforms to modernize the overall NEPA process that achieve the original intent of NEPA and meet streamlining objectives. These efforts include issuing new guidance,[100] developing practice guides on synchronizing NEPA with other statutory requirements,[101] and launching a pilot program that tests innovative approaches to NEPA that can be used government-wide.[102] The guidance documents and memoranda clarify NEPA's emphasis on simplicity, efficiency, consistency, and collaboration in the review process address: (1) NEPA review during emergencies,[103] (2) clarify the use of CEs;[104] (3) the use of mitigation commitments in EAs;[105] (4) process improvements for preparation and review

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97 *Id.*

98 *Id.*

99 *See* 42 U.S.C. § 4332 (2014).

100 Guidance documents are not legally binding; however, the Supreme Court has said that the CEQ's interpretation of NEPA is "entitled to substantial deference." Andrus v. Sierra Club, 442 U.S. 347, 358 (1979).

101 *See, e.g.*, COUNCIL ON ENVTL. QUALITY, NEPA AND NHPA: A HANDBOOK FOR INTEGRATING NEPA AND SECTION 106 (Mar. 2013) [hereinafter *Handbook*], *available at* http://www.whitehouse.gov/sites/default/files/nepa_and_nhpa_handbook.pdf, *archived at* http://perma.cc/J5HX-UBVL; EXEC. OFFICE OF THE PRESIDENT OF THE U.S. & GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, STATE OF CALIFORNIA, NEPA AND CEQA: INTEGRATING FED. AND STATE ENVTL. REVIEWS (Feb. 2014) [hereinafter *Integrating Reviews*], http://www.whitehouse.gov/sites/default/files/page/files/nepa_ceqa_handbook_feb2014.pdf, *archived at* http://perma.cc/Y4FC-NQ4J.

102 *See* COUNCIL ON ENVTL. QUALITY, WHITE HOUSE, *CEQ NEPA Pilot Program*, *available at* http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/nepa-pilot-project (last visited Feb. 15, 2015), *archived at* http://perma.cc/HKM3-3SAT.

103 *See Handbook*, *supra* note 101, at 34.

104 COUNCIL ON ENVTL. QUALITY, WHITE HOUSE, *Final Guidance Clarifying Use of Categorical Exclusions*, *available at* http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/categorical-exclusion-guidance (last visited Feb. 15, 2015), *archived at* http://perma.cc/QCB9-WK7B; Press Release, Council on Envtl. Quality, White House, White House Council on Environmental Quality Issues Guidance to Help Federal Agencies Ensure the Integrity of Environmental Reviews (Nov. 23, 2010), *available at* http://www.whitehouse.gov/administration/eop/ceq/Press_Releases/November_23_2010, *archived at* http://perma.cc/6A8Q-JVKD.

105 Press Release, Council on Envtl. Quality, White House, White House Council on Environmental Quality Issues Mitigation and Monitoring Guidance under NEPA (Jan. 14, 2011),

under NEPA;[106] (5) effective use of programmatic NEPA reviews;[107] and (6) inclusion of greenhouse gas emissions and climate change analyses in NEPA documents.[108]

The concept of efficiency is embedded in the CEQ's NEPA regulations.[109] The regulations direct federal agencies to perform concurrent rather than subsequent reviews, identify and resolve issues in a timely manner, and to harmonize statutory differences when possible.[110] Recently, the CEQ has worked with agencies to issue guidance on integrating NEPA and the National Historic Preservation Act Section 106 reviews,[111] and on streamlining into a single review process requirements of NEPA and California's environmental review process.[112] Moreover, federal agencies have institutionalized efficiency by entering into interagency agreements detailing roles and responsibilities and developing tools to maximize concurrent reviews.[113]

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available at http://www.whitehouse.gov/administration/eop/ceq/Press_Releases/January_14_2011, *archived at* http://perma.cc/46LK-S7UF; COUNCIL ON ENVTL. QUALITY, WHITE HOUSE, *Final Guidance Clarifying Appropriateness of "Findings of No Significant Impact" and Specifying When There is a Need to Monitor Environmental Mitigation Commitments*, *available at* http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/mitigation-and-monitoring-guidance (last visited Feb. 15, 2015), *archived at* http://perma.cc/PRL6-4BGS.

106 Memorandum from Nancy H. Sutley, Chair, Council on Envtl. Quality, on Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act to the Heads of Federal Departments and Agencies (Mar. 6, 2012), *available at* http://www.whitehouse.gov/sites/default/files/microsites/ceq/improving_nepa_efficiencies_06mar2012.pdf, *archived at* http://perma.cc/BW7F-XBHG.

107 COUNCIL ON ENVTL. QUALITY, WHITE HOUSE, Quality, *Final Guidance for Effective Use of Programmatic NEPA Reviews* (Feb. 15, 2015), *available at* http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/programmatic-reviews, *archived at* http://perma.cc/6C78-LM4A. When performed correctly, programmatic NEPA analyses can provide efficiencies in project development and permitting.

108 COUNCIL ON ENVTL. QUALITY, WHITE HOUSE, *Revised Draft Guidance for Greenhouse Gas Emissions and Climate Change Impacts*, *available at* http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance (last visited Feb. 15, 2015), *archived at* http://perma.cc/6D77-DH5Y.

109 *See* COUNCIL ON ENVTL. QUALITY, WHITE HOUSE, *Steps to Modernize and Reinvigorate NEPA*, *available at* http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa (last visited Mar. 1, 2015), *archived at* http://perma.cc/ZM22-5HG9.

110 40 C.F.R. §§ 1500.2(c), 1500.5, 1502.25, 1506.2 (1978).

111 *See Handbook*, *supra* note 101, at 4.

112 *See Integrating Reviews*, *supra* note 101, at 2.

113 *See, e.g.*, Fed. Highway Admin., Nat'l Marine Fisheries Serv., U.S. Army Corps of Engineers, U.S. Envtl. Prot. Agency & U.S. Fish and Wildlife Serv., Applying the Section 404 Permit Process to Federal-Aid Highway Projects (Sept. 1988), *available at* https://collaboration.fhwa.dot.gov/dot/fhwa/ReNepa/Lists/aReferences/Attachments/216/Red_book.pdf, *archived at* https://perma.cc/MB58-HHTJ (detailing how agencies can synchronize NEPA and other regulatory reviews, such as USACE's regulatory review or Endangered Species Act (ESA) consultation); Fed. Highway Admin., *Memorandum of Understanding between the U.S. Coast Guard and Fed. Highway Admin. and Fed. Transit Admin. and Fed. R.R. Admin. To Coordinate and Improve Bridge Planning and Permitting*, U.S. DEP'T OF TRANSP. (Dec. 2013), *available at* http://environment.fhwa.dot.gov/strmlng/MOU_multimodal_bridge_permits.pdf, *archived at* http://perma.cc/GFY5-KLTB; FED. HIGHWAY ADMIN., PLANNING AND

In addition to issuing new NEPA guidance documents, the CEQ launched a NEPA Pilot Program in March 2011 to solicit and implement ideas from federal agencies and the public about innovative approaches to NEPA implementation that could save time and cost.[114] The CEQ selected five submissions that have been implemented along with other federal agencies: (i) two projects use information technology (IT) solutions to improve the NEPA process;[115] (ii) one project gathered lessons learned from experienced NEPA practitioners to develop best practice principles for preparing more efficient NEPA reviews;[116] (iii) one project sought new ideas and solutions for efficient review of large-scale projects that involve multiple stakeholders;[117] and (iv) another project evaluated the Forest Service's effectiveness on two innovative and collaborative restoration projects.[118] Each of these pilot projects has produced valuable insights and generated new ideas and approaches that apply throughout the federal government, such as utilizing GIS to gather information needed for environmental reviews.[119] The CEQ is encouraging federal agencies to incorporate concepts and tools developed from these pilot projects and recently issued a report providing ten recommendations to federal agencies on modernizing NEPA implementation,[120] including:

(i) Agencies should refine and develop their NEPA management and public engagement IT tools by leveraging existing tools and working collaboratively across the Federal Government to ensure the compatibility of IT tools;

(ii) Agencies should have a suite of NEPA IT tools at their disposal and be able to choose which ones they need to meet their needs, depending on the project and step in the NEPA review process;

(iii) Agencies should review the Best Practice Principles for developing Environmental Assessments and incorporate them into their NEPA practices;

(iv) Agencies should provide comments to CEQ on which Best Practice Principles for Environmental Assessments should be incorporated into CEQ guidance;

ENVTL. LINKAGES FOR HISTORIC PRESERVATION (June 1, 2012), *available at* http://environment.fhwa.dot.gov/histpres/HistPres_PEL_report.pdf, *archived at* http://perma.cc/SY83-FGL3.

114 *See CEQ NEPA Pilot Program*, *supra* note 102.

115 *Id.* One pilot included developing web-based tools to shorten the time needed to manage environmental reviews for NPS and the Forest Service. The other pilot focused on the public release of EPA's geographic information systems (GIS) database of environmental data known as NEPAssist.

116 *Id.*

117 *Id.* The focus of this pilot project is the Northeast Rail Corridor high-speed, inter-city passenger rail project.

118 *See id.*

119 *See id.*

120 Memorandum from Michael Boots, Council on Envtl. Quality, on Nat'l Envtl. Policy Act Pilot Projects Report and Recommendations (Jan. 26, 2015), *available at* http://www.whitehouse.gov/sites/default/files/docs/ceq_nepa_pilots_conclusion_recommendations_jan._2015.pdf, *archived at* http://perma.cc/PS4R-DKEA.

(v) Agencies should encourage use of EPA's NEPAssist geospatial IT tool by program and project managers as well as NEPA practitioners;
(vi) Agencies should ensure their IT tools are compatible to ensure ease of use with NEPAssist;
(vii) Agencies should consider developing and using a Statement of Principles in lieu of the more complex and time-intensive process required to adopt a formal Memorandum of Understanding when developing cooperating or participating agency agreements with other Federal, tribal, state, or local governmental entities;
(viii) Agencies should review the final best practices report for the FRA's Northeast Corridor Future project when developing a large-scale (temporal and spatial) NEPA review;
(ix) Agencies should review the final reports for the USFS 4FRI and Fivemile-Bell restoration projects and use the best practices when developing a large-scale (temporal and spatial) NEPA review;
(x) Agencies should optimize the use of collaborative stakeholder groups for developing and implementing monitoring for the effects of proposed projects and the effectiveness of proposed mitigations.[121]

Many of these recommendations provide practical and useful suggestions to create efficiencies by utilizing IT tools for NEPA management and public engagement and promoting best practices for large-scale NEPA review and for EAs.[122]

The executive branch has been actively working to identify and implement efficiencies in NEPA review. While some efforts are targeted to certain activities within the federal government, such as infrastructure, the lessons learned have broad applicability and can be widely used to generate efficiencies. Below, I offer some modest suggestions that complement these recent efforts by the executive branch.

IV. Suggestions for Administrative Solutions to Create NEPA Efficiencies

Perhaps the most effective action agencies can take to increase efficiencies in the NEPA review process is to get back to the basics with NEPA and halt efforts to make NEPA documents litigation-proof. This proposed solution is not new. Various proponents of NEPA reform have advanced them, and yet agencies still create encyclopedia EISs, EAs, and (to a lesser extent) CEs.[123] The remaining question, however, is why federal agencies continue to create such lengthy documents in spite of the general consensus that NEPA documents need not be so voluminous. The vast majority of CEs, EAs, and EISs are not litigated.[124] On average, NEPA lawsuits represent only two-tenths

121 *Id.*
122 *Id.*
123 Extensive documentation for CEs is counter to the CEQ's NEPA regulations, and courts have held that the more rigorous requirements for EAs and EISs do not apply to CEs. *See, e.g.*, Ctr. for Biological Diversity v. Salazar, 706 F.3d 1085, 1097 (9th Cir. 2013).
124 GAO, *supra* note 20, at 19.

of one percent of more than 50,000 actions that are documented by federal agencies each year under NEPA.[125] Furthermore, when NEPA documents are litigated, the federal government has been successful in the majority of these cases.[126] In fact, the cases that the federal government usually lose are those in which the agency failed to follow a procedural step or relied upon flawed data.[127] One possible reason for agencies' encyclopedic NEPA documents is a misunderstanding of judicial interpretation of NEPA review requirements.

Based upon this supposition, I offer some practical administrative suggestions that reflect NEPA case law and provide tools for creating tailored NEPA documents.[128] First, federal agencies should use their discretion to tailor NEPA documents so they are not encyclopedic. Agencies must recognize and use their discretion to determine the necessary length of their NEPA documents, the methodologies to use, and the depth of the analysis necessary to make an informed decision.[129] Second, as long as an agency has completed its review in good faith, it is not necessary to engage in a battle of experts with other agencies in their NEPA review. If the agency's decision is not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," it will with-

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125 *See NEPA: Lessons Learned and Next Steps: Hearing Before the Comm. on Res.*, 109th Cong. (Nov. 17, 2005) (statement of Robert G. Dreher), *available at* http://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=1100&context=cong, *archived at* http://perma.cc/LZ9Q-ECUA.

126 *See, e.g.*, Natural Res. Def. Council, Inc. v. U.S. Dept. of Transp., 770 F.3d 1260 (9th Cir. 2014); Alliance for the Wild Rockies v. U.S. Dept. of Agric., 772 F.3d 592 (9th Cir. 2014); Ctr. for Food Safety v. Vilsack, 718 F.3d 829 (9th Cir. 2013); Great Old Broads for Wilderness v. Kimbell, 709 F.3d 836 (9th Cir. 2013); Hoosier Envtl. Council v. U.S. Army Corps of Eng'rs, 722 F.3d 1053 (7th Cir. 2013).

127 *See, e.g.*, Ky. Riverkeeper, Inc. v. Rowlette, 714 F.3d 402, 413 (6th Cir. 2013) (holding that the USACE's EA did not meet NEPA's regulatory requirement to examine cumulative impacts); W. Watersheds Project v. Abbey, 719 F.3d 1035, 1054 (9th Cir. 2013) (holding that the U.S. Bureau of Land Management (BLM) failed to look at a reasonable range of alternatives by not including consideration of any alternatives that would have reduced grazing levels on the allotment in light of the monument's protected objects.); Native Ecosystems Council v. U.S. Forest Serv., 418 F.3d 953, 964 (9th Cir. 2005) (stating that the "hard look" standard is not fulfilled when an agencies relies on "incorrect assumptions or date in an EIS."); N.M. ex rel. Richardson v. Bureau of Land Mgmt., 565 F.3d 683, 715 (10th Cir. 2009) (finding that the BLM acted arbitrarily and capriciously because it "failed to conduct a thoroughgoing environmental analysis of its chosen land management alternative, failed to consider the reason able alternative of closing the entire Otero Mesa to fluid mineral development, and failed to demonstrate that it examined the relevant data regarding the likely impact of development on the Aquifer. Each of these failures was more than a mere flyspeck and thwarted NEPA's purposes by preventing both BLM and the public from accessing the full scope of required environmental information.").

128 These recommendations include observations of case law from the Supreme Court and various circuit courts. Therefore, when considering these recommendations for specific actions, federal agencies would be prudent to verify that the circuit with jurisdiction over their proposed action follows these observations. Some of the court decisions turn on the type of activity in which the agency was engaged so they may not always apply to a specific federal agency's proposed action.

129 *See, e.g.*, 40 C.F.R. §§ 1500.4, 1501.7 & 1501.8 (1979).

stand judicial review.[130] Third, even though the CEQ's NEPA regulations do not require it,[131] agencies should invite public comments on EAs. Fourth, the CEQ should clarify the role of regulatory and permitting agencies in NEPA as cooperating agencies to support the early coordination between these agencies and the lead agency. I will explain each of these points in detail below.

A. Use Agency Discretion to Reign in Unnecessarily Lengthy NEPA Documents

A succinct NEPA document does not equate to a flawed NEPA document. The APA governs judicial review of agency decisions under NEPA.[132] Under the APA, a court will set aside a final agency action only if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[133] When determining if an action is arbitrary or capricious, courts look at whether the agency "considered the relevant factors and has provided an explanation that rationally connects the data with the choice made."[134] Courts use a special standard of review for arbitrariness in NEPA actions.[135] They look to see "that the agency has, in fact, adequately studied the issue and taken a hard look at the environmental consequences of its decisions."[136] This standard is extremely deferential to federal agencies.[137] Additionally, courts do not typically overturn NEPA decisions when the administrative record demonstrates that the agency has followed NEPA's procedural steps, when there are minor deficiencies in the NEPA document, or when an agency documents why it has chosen to exclude information.[138] As

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130 Utah Envtl. Cong. v. Bosworth, 443 F.3d 732, 740 (10th Cir. 2006).

131 The CEQ's public involvement provision states that agencies should provide public notice of the availability of environmental documents. 40 C.F.R. § 1506.6 (1978). This has been interpreted to mean that federal agencies do not need to provide a public comment period on EAs prior to issuing a FONSI. However, agencies are required to provide an opportunity for comment on a DEIS before preparing a FEIS. 40 C.F.R. § 1503.1 (1978).

132 Administrative Procedure Act, 5 U.S.C. §§ 501-706 (2011).

133 *See Bosworth*, 443 F.3d at 740.

134 Latin Ams. for Soc. & Econ. Dev. v. Adm'r of the Fed. Highway Admin., 756 F.3d 447, 464 (6th Cir. 2014).

135 *See* Aliza M. Cohen, *NEPA in the Hot Seat: A Proposal for an Office of Environmental Analysis*, 44 U. Mich. J.L. Reform 169, 182 (2010).

136 *See Latin Ams.*, 756 F.3d at 464. Moreover, judicial deference is most pronounced in cases where the challenged decision involves "technical or scientific matters within the agency's area of expertise." *Bosworth*, 443 F.3d at 739. The "hard look" standard was laid out by the Supreme Court in *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989); *see also* League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv., 689 F.3d 1060, 1075 (9th Cir. 2012) (quoting N. Alaska Envtl. Ctr. v. Kempthorne, 457 F.3d 969, 975 (9th Cir. 2006)) (A "hard look" includes "considering all foreseeable direct and indirect impacts. Furthermore, a 'hard look' should involve a discussion of adverse impacts that does not improperly minimize negative side effects.").

137 *See* Cohen, *supra* note 135, at 181.

138 *See* Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 756-57 (2004); *Methow Valley*, 490 U.S. at 350-51 (holding that NEPA procedures do not require a fully developed plan). *See also* Wildearth Guardians et al. v. Jewell, 738 F.3d 298, 319 (D.C. Cir. 2013) ("[W]e are mindful that our role is not to flyspeck an agency's environmental analysis, looking for an deficiency no matter how minor. Rather it is simply to ensure that the agency has adequately

has been noted by several courts, "the NEPA process involves an almost endless series of judgment calls, and the line-drawing decisions necessitated by the NEPA process are vested in the agencies, not the courts."[139]

Courts have repeatedly stated that they will not step into the shoes of an agency, and NEPA does not require agencies to engage in the most exhaustive environmental analysis theoretically possible.[140] Federal agencies have the discretion to determine the extent of their NEPA analysis and the methodologies used, so long as their decisions are not arbitrary.[141] Agencies can and should use their discretion to make their environmental analysis less voluminous and time-consuming by incorporating documents by reference, utilizing GIS data, and not engaging in a battle of the experts with other federal agencies.

Incorporating documents by reference is embodied in the CEQ's NEPA regulations and is one of the most effective ways to shorten NEPA documents.[142] The regulations allow for incorporation by reference when it will cut down on bulk and not impede agency and public review of the proposed action.[143] The material incorporated must be reasonably available and shall be cited in the NEPA document with its content briefly described.[144] While it is reasonable to assume that agencies frequently incorporate documents rather than duplicate research and materials, it is not unusual to see NEPA documents that needlessly spend hundreds of pages on subjects and issues that have existing, valid documents that could instead be incorporated by reference. The litigation threat

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considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious.") (internal quotations omitted).

139 Duncan's Point Lot Owners Ass'n, Inc. v. Fed. Energy Regulatory Comm'n, 522 F.3d 371, 376 (D.C. Cir. 2008) (quoting Coal on Sensible Transp., Inc. v. Dole, 826 F. 2d 60, 66 (D.C. Cir. 1987)).

140 *See, e.g.*, Alaska Dep't of Envtl. Conservation v. Envtl. Prot. Agency, 540 U.S. 461, 497 (2004) (quoting Bowman Transp., Inc. v. Ark.-Best Freigh Sys., Inc., 419 U.S. 281, 286 (1974) ("[W]hen an agency explains its decision with 'less than ideal clarity,' a reviewing court will not upset the decision on that account 'if the agency's path may reasonably be discerned.'"). *See also* Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 97-98 (1983) ("The role of the courts is simply to ensure that the agency has adequately considered and disclosed the environmental impacts of its actions and that its decision is not arbitrary or capricious.").

141 *See, e.g.*, Town of Winthrop v. Fed. A viation Admin., 535 F.3d 1, 13 (1st Cir. 2008) (holding that agencies are entitled to select their own methodology as long as that methodology is reasonable). However, NEPA documents can be too succinct and will lose a challenge if they "contain only narratives of expert opinions." Klamath-Siskiyou Wildlands v. Bureau of Land Mgmt., 387 F.3d 989, 996 (9th Cir. 2004). *See also* Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1150 (9th Cir. 1998) ("[A]llowing the [Agencies] to rely on expert opinion without hard data either vitiates a plaintiff's ability to challenge an agency action or results in the courts second guessing an agency's scientific consultations. As both of these results are unacceptable, we conclude that NEPA requires that the public receive the underlying environmental data from which [an Agency] expert derived her opinion.").

142 40 C.F.R. § 1502.21 (1978).

143 *Id.*

144 *Id.*

on incorporating documents by reference is low.[145] In cases in which litigants have challenged the sufficiency of the NEPA documents, courts have ruled in favor of federal agencies when they followed the CEQ's regulation, incorporating material that was readily available and including a brief statement on the materials' content.[146]

As stated above, NEPA grants substantial discretion to agencies to determine how best to gather and assess information.[147] The use of GIS data is one method federal agencies can use to effectively gather information. CEQ recognized the value of GIS data to create NEPA efficiencies when it selected EPA's NEPAssist[148] as a NEPA Pilot Project.[149] Additionally, while the use of GIS data in NEPA analysis is still a relatively new concept, its use has been upheld in judicial reviews as a valid form of information gathering for agencies to use.[150] In one case, the court upheld the Surface Transportation Board's use of GIS and aerial photography rather than site-specific examinations and determined that it was not a deficient methodology to collect data nor was the agency's reliance on GIS data arbitrary and capricious.[151] In another case, the Forest Service used GIS data and satellite imagery rather than having specialists conduct on-site visits.[152] The court noted that NEPA grants substantial discretion to an agency in determining how best to gather and access information and refused to prioritize the competing methodologies, thereby limiting its determination to whether the challenged method, in this case the use of GIS, had a rational basis.[153] The court upheld the Forest Service's use of GIS data and determined that the use of GIS data allowed the Forest Service to "soundly evaluate the impact" on the effected environment.[154]

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145 *See, e.g.*, Jones v. Nat'l Marines Fisheries Serv., 741 F.3d 989 (9th Cir. 2013) (citing City of Sausalito v. O'Neill, 386 F.3d 1186, 1214 (9th Cir. 2004)).

146 *Id.*

147 *See* Utah Share Access Alliance v. U.S. Forest Serv., 288 F.3d 1205, 1212-13 (10th Cir. 2002).

148 NEPAssist is a web-based tool developed by EPA that uses GIS-based data to provide specific information regarding environmental conditions for specified areas of interest. ENVTL. PROT. AGENCY, *National Environmental Policy Act (NEPA)*, *available at* http://www.epa.gov/compliance/nepa/nepassist-mapping.html (last updated Sept. 16, 2014), *archived at* http://perma.cc/E8G5-YYNK.

149 *CEQ NEPA Pilot Program*, *supra* note 102.

150 *See, e.g.*, Alaska Survival v. Surface Transp. Bd., 705 F.3d 1073 (9th Cir. 2013).

151 *See id.* at 1088 (stating that there was no proof that the GIS data was stale or led to insufficient data on which to base mitigation measures).

152 Biodiversity Conservation Alliance v. U.S. Forest Serv., 765 F.3d 1264, 1270 (10th Cir. 2014) (indicating that when determining whether the Forest Service's decision to use GIS and satellite imaging rather than having specialists conduct on-site visits was arbitrary and capricious, the court looks to "whether the agency's chosen method is sound, not whether there are competing methods that might work as well.").

153 *Id.* at 1270.

154 *Id.* While courts have upheld the use of GIS data, federal agencies have run into trouble when the methodology behind the GIS data was flawed or when the federal agency did not disclose that specific GIS data was relied upon or failed to make it publicly available for review.

One benefit of GIS is that agencies can identify environmental resources that may be impacted by a proposed action with a minimal effort.[155] Using GIS not only saves time, but can also reduce costs by allowing federal agencies to narrow the scope of contractor work on NEPA documents.[156] Agencies that use contractors to develop NEPA documents rely upon contractors to advise on and compile the required information and documentation.[157] A significant amount of time and money can be saved if federal agencies use GIS data to gather initial information prior to engaging a contractor.

B. Minimize Battle of the Experts with Cooperating Agencies

Another cause of delay in the NEPA process is the battle of the experts between federal agencies. When more than one agency is involved in the development of a NEPA document, agencies will inevitably disagree on some aspects of the document.[158] Although some issues can be resolved readily, the disagreements require inordinate time and resources to resolve fundamental ideological or methodological conflicts, such as conflicting methods for measuring noise impacts or disagreement regarding the appropriate method to gather data.[159] Although achieving a consensus is ideal, often the best option is for the lead agency to note the differences and move forward with the NEPA document. For example, if agencies cannot resolve the issue within a year, it may be more efficient to agree to disagree.

It is well known that courts give special weight to criticism from other agencies.[160] Because it is in the best interest of agencies to minimize the risk of litigation, they go to extreme measures to ensure that cooperating agencies do not submit negative or conflicting comments on the NEPA document.[161] Nonetheless, agencies should not feel paralyzed by this risk because, in reality, it is not as lethal as they may assume.[162] Courts have

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155 *See* Matt Artz, *Top Five Benefits of GIS*, GIS AND SCIENCE (SEP. 14, 2009), http://gisandscience.com/2009/09/14/top-five-benefits-of-gis, *archived at* http://perma.cc/GQ6Z-T349.

156 *See id.*

157 *See* FED. ENERGY REGULATORY COMM'N, HANDBOOK FOR USING THIRD-PARTY CONTRACTORS TO PREPARE ENVIRONMENTAL DOCUMENTS 1-1 (Dec. 2014), *available at* http://www.ferc.gov/industries/hydropower/enviro/tpc/tpc-handbook.pdf, *archived at* http://perma.cc/DZ8Q-CW5F.

158 *See NEPA Basic Information*, U.S. ENVTL. PROT. AGENCY, http://www.epa.gov/compliance/basics/nepa.html (last visited Mar. 1, 2015), *archived at* http://perma.cc/3YRB-XG3R (the CEQ is established by NEPA to resolve disagreements between agencies).

159 *See, e.g.*, *Collaborative Problem Solving: Better and Streamlined Outcomes for All*, FED. HIGHWAY ADMIN., *available at* http://www.environment.fhwa.dot.gov/strmlng/adrguide/adr4.asp, *archived at* http://perma.cc/TCA7-8JKY (conflicts or disputes often involve questions concerning extend or methodology of data collection).

160 *See, e.g.*, Save Our Sonoran, Inc. v. Flowers, 408 F.3d 1113, 1122 (9th Cir. 2004).

161 *See* Arnold W. Reitze Jr., *The Role of NEPA in Fossil Fuel Resource Development and Use in the Western United States*, 39 B.C. ENVTL. AFF. L. REV. 283, 385 (2012) (noting that a typical EA required nine to eighteen months to prepare at a cost of $50,000 to $200,000).

162 *See, e.g.*, Mid States Coal. for Progress v. Surface Transp. Bd., 345 F.3d 520 (8th Cir. 2003) (holding that the Surface Transportation Board's use of a different methodology for noise than the Federal Administration Agency's did not make the Board's methodology insufficient under NEPA); Town of Winthrop v. Fed. Aviation Admin., 535 F.3d 1, 13 (1st Cir. 2008) (holding that the Federal Aviation Administration was entitled to select their own

stated that all the CEQ's NEPA regulation requires is that the lead agency consider the other agencies' comments and concerns and explain why it finds them unpersuasive.[163] Furthermore, "as long as the agency engages in a 'reasonably thorough discussion,' [courts] do not require unanimity of opinion among agencies."[164] The Supreme Court has held that, "when specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive."[165] Moreover, on matters within an agency's expertise, courts "defer to the agency's choice of methodology as long as it is not arbitrary or without foundation."[166] Therefore, to meet the requirements of NEPA, a federal agency should document in the administrative record the credible opposing positions it has received, evaluate them, and detail the reasons why it has chosen to reject the opposing positions.[167] Reaching agreement between federal agencies is the preferred outcome, however, when a stalemate keeps the lead agency from finalizing a

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methodology as long as the methodology is reasonable); Hells Canyon Alliance v. U.S. Forest Serv., 227 F.3d 1170 (9th Cir. 2000) (holding that the Forest Service has discretion to determine which methodologies to use and that NEPA does not require the court to decide whether an EIS is based on the best scientific methodology available).

163 Alaska Survival v. Surface Transp. Bd., 705 F.3d 1073, 1087 (2013) ("But a lead agency does not violate NEPA when it does not defer to the con cerns of other agencies."). *See also* Biodiversity Conservation Alliance v. U.S. Forest Serv., 765 F.3d 1264, 1270 (10th Cir. 2014) ("Courts are not in a position to decide the propriety of competing methodologies, but should simply determine whether the challenged method had a rational basis and took into consideration the relevant factors.") (citing Comm. to Preserve Boomer Lake Park v. U.S. Dep't of Transp., 4 F.3d 1543, 1553 (10th Cir. 1993)).

164 *Alaska Survival*, 705 F.3d at 1088.

165 Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989).

166 *See, e.g.*, Friends of the Norbeck & Native Ecosystems Council v. U.S. Forest Serv., 780 F.Supp. 2d 975, 984 (U.S. Dist. Ct. 2011) (quoting Friends of the Boundary Waters Wilderness v. Dombeck, 164 F.3d 1115, 1130 (8th Cir. 1999)); Or. Envtl. Council v. Kunzman, 817 F.2d 484, 496 (9th Cir. 1987) (holding that NEPA does not require that the court determine whether the NEPA document is based on the best scientific methodology available nor does it require the court to resolve disagreements among scientists as to methodology); Envtl. Prot. Info. Ctr. v. U.S. Forest Serv., 451 F.3d 1005, 1017 (9th Cir. 2006) ("When specialists express conflicting views, we defer to the informed discretion of the agency."). However an agency's NEPA analysis can be found inadequate if it only contains narratives of its expert opinions and does not include underlying hard data that the public can review and comment upon. *See*, *e.g.*, Jones v. Nat'l Marine Fisheries Serv., 741 F.3d 989, 998 (9th Cir. 2013) (quoting Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1150 (9th Cir. 1998)).

167 The CEQ's regulation requires federal agencies to discuss in their FEIS any "responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised." 40 C.F.R. § 1502.9(b) (1978). A sure way for a federal agency to lose a NEPA challenge is if it does not meet the disclosure requirement of NEPA. This requirement "obligates the agency to make available to the public high quality information, including accurate scientific analysis, expert agency comments and public scrutiny, before decisions are made and actions are taken." W. Watersheds Project v. Kraayenbrink, 632 F.3d 472, 492 (9th Cir. 2011) (holding that the agency violated NEPA when it failed to disclose and discuss responsible opposing scientific viewpoints).

NEPA document, the lead agency can move forward if it provides a well-reasoned analysis in the documents for rejecting the opposing agencies' comments.

C. Issue Draft Environmental Assessments for Public Comment

Another way agencies can create efficiencies in environmental review and project delivery is to provide a public comment period for draft EAs (DEAs) on contentious proposed actions. Adding a comment period to an EA may not sound like a mechanism for efficiency on its face because it would add time during the development of the EA. However, it could save time in the long run, especially on contentious proposed actions. Some agencies currently use their discretion and provide a comment period on their DEAs,[168] while other agencies issue their DEA for public comment to satisfy other relevant statutory authorities that require public input, such as Section 106 of National Historic Preservation Act.[169] However, many agencies choose not to release DEAs for public comment because they do not want to delay moving forward on the proposed action.[170] The majority of EA lawsuits brought by plaintiffs focus on two claims: (1) whether the EA should have been an EIS; and (2) a lack of sufficient information on indirect and cumulative impacts.[171] The latter claim could be readily resolved by supplementing the EA with additional information.[172] However, turning an EA into an EIS could add substantial delay, especially when it is compounded with the delay caused by the litigation itself.[173] By providing the opportunity for public comment, an agency can discover concerns with the proposed action in advance and can often address them

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168 *See, e.g.*, Office of NEPA Policy and Compliance, *Public Comment Opportunities*, U.S. DEP'T OF ENERGY, *available at* http://energy.gov/nepa/public-comment-opportunities, *archived at* http://perma.cc/97GB-HXYL (last visited Mar. 2, 2015); Bureau of Land Mgmt., *How to Get Involved*, U.S. DEP'T OF THE INTERIOR, https://www.blm.gov/epl-front office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=58652, *archived at* https://perma.cc/GQJ6-VX3H (last visited Mar. 2, 2015).

169 Section 106 of the Historic Preservation Act of 1966 requires public involvement in the consultation process. If a proposed action may adversely impact a Section 106 property, then a Federal agency may find it more efficient to release the draft EA for public comment rather than just releasing the portion that addresses the potential impact on the Section 106 property. 36 C.F.R. § 800 (2000).

170 *See, e.g.*, Theodore Roosevelt Conservation P'ship v. Salazar, 616 F.3d 497, 519 (D.C. Cir. 2010) (BLM did not and was not required to release EA for public comment); *see also* TOMAC, Taxpayers of Mich. Against Casinos v. Norton, 433 F.3d 852, 861 (D.C. Cir. 2006) (indicating that the "agency has significant discretion in determining when public comment is required with respect to EAs.").

171 This is supported by a 1997 CEQ study that found that some members of the public believe that EAs can be prepared to avoid public involvement. It further found that, when the public is kept out of the decision-making process, the potential for litigation increases. COUNCIL ON ENVTL. QUALITY, THE NATIONAL ENVIRONMENTAL POLICY ACT: A STUDY OF ITS EFFECTIVENESS AFTER TWENTY-FIVE YEARS 19 (1997).

172 *See* New York v. Nuclear Regulatory Comm'n, 681 F.3d 471, 483 (D.C. Cir. 2012) (describing how additional information would cure a defective EA).

173 *See* Jeremy Brown, *NEPA and Environmental Impacts of LNG Exports*, THE UNIVERSITY OF TEXAS CENTER FOR GLOBAL ENERGY, INTERNATIONAL ARBITRATION AND ENVIRONMENTAL LAW, http://www.utexas.edu/law/centers/energy/blog/2014/09/nepa-and-environmental-impacts-of-lng-exports, *archived at* http://perma.cc/6ZKP-HM4K.

before issuing the FONSI and finalizing the action.[174] If an agency can do this, it can often avoid litigation that could delay implementing the action.

The Supreme Court has established that a litigant, absent exceptional circumstances, may not raise an issue in subsequent litigation that it did not raise before an agency if it had the opportunity to do so.[175] Courts have chosen not to entertain a NEPA challenge that reasonably could "have been but was not presented to the agency during the administrative process."[176] By providing the public with the opportunity to comment on an EA, an agency could limit the objections a litigant can bring to prove a NEPA violation.[177] If an agency does not provide a comment period on an EA, litigants can raise more objections regarding the EA because litigation would be the first opportunity to raise concerns with the action. The result could be lengthy protracted lawsuits that delay the implementation of the federal action.

D. Clarify the Role of Permitting and Regulatory Agencies When Acting as Cooperating Agencies

The value of early coordination between lead agencies and cooperating agencies is widely acknowledged.[178] Early coordination by federal agencies with an interest in a proposed action helps identify and resolve potential issues early in the NEPA process.[179] Moreover, if a regulatory or permitting agency does not participate in the NEPA process, there is a risk that a project will be delayed unexpectedly if aspects of the project could prohibit the regulatory or permitting agency from granting its approval. Two factors that influence a regulatory and permitting agency's decision whether to engage in early coordination or to decline an invitation to participate as a cooperating agency are a lack of resources and a concern that serving as a cooperating agency conflicts with their regulatory responsibility because it can appear that the agency has pre-judged the action before a permit application is submitted.[180] Only Congress can provide more resources to agencies to ensure early coordination and timely review.[181] The CEQ, however, has the authority to clarify the role of regulatory and permitting agencies in the NEPA process when they act as cooperating agencies.[182] Although the CEQ has provided guidance that

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174 CEQ defines the FONSI as the document that a federal agency uses to describe why the proposed action will not have a significant effect on the environment and thus not require an EIS. 40 C.F.R. § 1508.13 (1978).

175 *See, e.g.*, Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 764 (2004) ("Persons challenging an agency's compliance with NEPA must structure their participation so that it . . . alters the agency to the [parties'] position and contentions.") (internal quotations omitted).

176 The Village of Logan v. U.S. Dep't of Interior, 577 Fed. Appx. 760, 769 (10th Cir. 2014).

177 One court has rejected this argument. *See* Sierra Club v. Bosworth, 352 F.Supp.2d 909 (D. Minn. 2005) (stating that the public comment process for an environmental assessment is not analogous to an adversarial proceeding that would require issue exhaustion); *see also* Sierra Club v. Kimbell, 595 F.Supp.2d 1021 (D. Minn. 2009).

178 *See* Bureau of Land Mgmt., U.S. Dep't of the Interior, *Cooperating Agencies*, http://www.blm.gov/wo/st/en/info/nepa/cooperating_agencies.html (last visited Mar. 1, 2015), *archived at* http://perma.cc/SM52-YKNU.

179 *See id.*

180 *See id.*

181 U.S. Const. art. I, § 8.

182 *See* National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2009).

cooperating agencies can approve a lead agency's NEPA document even if the cooperating agency does not agree with the lead agency's determination, regulatory and permitting agencies are still hesitant to be cooperating agencies.[183] The CEQ should work with regulatory and permitting agencies to address their concerns and issue guidance that clarifies that review of a NEPA document does not commit the regulatory and permitting agency to any specific decision or course of action in permitting and, therefore, does not prejudice the agency in its regulatory function. This clarification would enhance efficiency in the NEPA and environmental review process by expanding early coordination to include regulatory and permitting agencies, thereby identifying issues and solutions to proposed projects that may otherwise delay approval.

V. CONCLUSION

As NEPA celebrates its 45th anniversary, it is important to acknowledge that the basic premises upon which NEPA was created remain as valid now as they were then. Public involvement in the environmental review process has resulted in better decisions by federal agencies and projects that incorporate environmental values.[184] NEPA analysis reflects the complexity of the issues involved in proposed actions. The time it takes to resolve complex and controversial actions does not indicate that NEPA is broken or unnecessary. Proposals for major overhauls to NEPA could hamper transparency and result in ill-informed decisions. Rather, NEPA could benefit from a minor facelift. With a few new administrative actions, agencies could continue to improve efficiencies in project delivery and the NEPA process, without compromising public input or the quality of the NEPA analysis, by engaging in early coordination, utilizing modern IT tools, issuing DEAs for public comment, and creating more succinct NEPA documents.

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183 Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026 (Mar. 23, 1981).

184 For examples of NEPA success stories, *see* ENVIRONMENTAL LAW INSTITUTE, NEPA SUCCESS STORIES: CELEBRATING 40 YEARS OF TRANSPARENCY AND OPEN GOVERNMENT (Aug. 2010), *available at* http://www.eli.org/research-report/nepa-success-stories-celebrating-40-years-transparency-and-open-government, *archived at* http://perma.cc/8YUK-R7UD.

Enlisting Renewable Energy: The Military's Environmental Exceptionalism and a Renewable Energy Initiative in the face of a National Security Threat

By Ashleigh Acevedo

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I. INTRODUCTION

"The exposure is real and the threat is imminent . . . ."[1] "A lone hacker could possess the capability to unleash a cyber-attack capable of massive and long term disruption to our electric grid."[2] To a military, this threat spurs battle preparation. To a citizen, this threat jostles public opinion and promotes acquiescence to whatever strategy is necessary for protection. But to an environmentalist, this threat is seemingly fortuitous.

Once realized, the threat of vulnerabilities in the military's reliance on the commercial electric grid heralded a quick and aggressive campaign for our nation's military to redevelop and deploy renewable energy as a means to decrease dependence on the commercial electric grid in hopes of essentially isolating military installations from such a threat.[3] With this initiative, the historic tension between the military's and the environmentalists' respective missions seems to dissipate into a rare coalition — albeit with differing motivations — for cleaner, more independent energy. This convergence promises a unique opportunity to hedge political ideologies to accomplish a common goal by tethering the ever-exceptional mission of national security to a quickly growing green initiative.

While the promise of this strange relationship is compelling, it should be approached with caution. The mission to decrease fossil fuel use by increasing renewable energy use can aid in protecting the nation against this particular threat, but it cannot eliminate the threat altogether. Rather than aborting the renewable energy mission for its shortcomings, the military is in a prime position to use it strategically to attain the greater mission of permanent national security.

This paper analyzes the evolution and potential implications of this partnership between the military and promoters of renewable energy. Part II describes the historical tension between environmental law and the military by exploring the exceptionalism provided to the military in major environmental statutes as well as judicially-interpreted exceptionalism. Part III briefly presents the nexus between environmental security and national security. Part IV provides the impetus and practical application of the military's renewable energy initiative. Part V posits that, given the military's new, aggressive focus on renewable energy — an arguably environmentally-friendly goal — a limited expansion of exceptionalism may be warranted without opposition from environmentalists. However, Part VI reflects on how such expanded authority could, ironically, be detrimental to national security. Finally, Part VII makes two recommendations for garnering

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1 William C. Anderson, *Energy Security and Microgrids: Protecting Critical Infrastructure from Impacts of Extended Grid Outages*, *in* RENEWABLE ENERGY FOR MILITARY INSTALLATIONS: 2014 INDUSTRY REVIEW 48, 49 (Am. Council on Renewable Energy ed., 2014), *available at* http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf, *archived at* http://perma.cc/D3JL-AM54.

2 *Id.*

3 *See infra* Part IV.

a new era of clean energy use by the military while maintaining the military's role as national protector.

II. Military Exceptionalism in Environmental Law

The military's role as the nation's guardian compels it to be an exceptional entity. Depending on the global peace outlook, national security interests tend to have varying degrees of supremacy over many, if not most, other policy considerations. The realm of environmental law is no different. Veritably, environmental policy goals in the U.S. are routinely compromised when military readiness is at stake.

A. Exemptions for Exceptionalism

Federal environmental statutes do not merely recognize the dichotomy between environmental protection and national protection; they *create* that dichotomy. Under most of the environmental statutes in the U.S., some form of a national security exemption exists in which the President (and in some instances, the secretary of the relevant executive agency) may grant waivers from environmental obligations for agency actions if the agency can demonstrate that a waiver is "in the paramount interest of the United States" or specifically in the interest of national security.[4] Furthermore, following a declaration

4 Clean Air Act, 42 U.S.C. § 7418(b) (2014) (authorizing the President to exempt emission sources of any executive branch agency if "in the paramount interest of the United States to do so" and specifically allowing the President to "issue regulations exempting from compliance with the requirements of this section any weaponry, equipment, aircraft, vehicles, or other . . . property which are owned or operated by the Armed Forces of the United States . . . and which are uniquely military in nature" at three-year intervals, but limiting the exemption to one year in duration with the possibility of an extension of the exemption); Clean Water Act, 33 U.S.C. § 1323(a) (2014) (allowing the President to exempt any executive branch agency from compliance with effluent source limits if "in the paramount interest of the United States to do so[,]" specifically allowing exemptions for the military and military-related activities as are allowed in the Clean Air Act, and limiting the waiver to one year unless the agency successfully secures an extension of the waiver); Coastal Zone Management Act, 16 U.S.C. § 1456(c)(3)(A) (2014) (requiring applicants for licenses for conducting activities in or outside of the coastal zone to submit to certain state and federal oversight agencies a certification that the activities conform to the objectives of the Coastal Zone Management Act and are "otherwise necessary in the interest of national security" and prohibiting licensure of such activities unless consistent with the objectives of the Act or "otherwise necessary in the interest of national security"); Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9620(j)(2) (2014) (noting that laws and regulations relating to confidential information will be maintained even in seeking such waivers); Endangered Species Act, 16 U.S.C. § 1536(j) (2014) (authorizing an exemption for "any agency action if the Secretary of Defense finds that such exemption is necessary for reasons of national security"); Marine Mammal Protection Act, 16 U.S.C. § 1371(f)(1) (2014) (specifically allowing the Secretary of Defense, after conferring with the Secretaries of Commerce and Interior, to exempt the Department of Defense actions from compliance with the Act if the Secretary determines that it is "necessary for national defense"); Noise Control Act, 42 U.S.C. § 4903(b) (2014) (allowing the President to au-

of war or a declaration of a national emergency to support military objectives, Congress has the sweeping authority to allow the Department of Defense (DoD) to undertake construction projects that are not otherwise authorized by the law.[5] However, most of these exceptions are drafted with expressly outlined restrictions: specific activities, strict time limitations, or subjection to judicial review.[6]

Intuitively, the degree to which these exceptions have been used and authorized has fluctuated since the Green Revolution of the 1970s, when environmental regulation came to the forefront of American rhetoric on the heels of an unpopular war.[7] However, the tragedy of 9/11 ushered in a remarkable reversal in the environmental-military nexus.

1. PRE-9/11

Prior to 9/11, courts responded to the military exceptions delineated in major environmental statutes with a great degree of deference to the administrative agencies.[8] In large part, however, such deference was limited to what was expressly allowed by statute.[9] As such, the waiver allowances had to be strictly justified as falling within the scope of the relevant statutory provision.[10]

2. POST-9/11

The events of 9/11 represented more than an unthinkable attack on the homeland; they meant that America was at war. But unlike the wars of days past, this war was not against a readily-discernible nation-state, it was against an ideal, a government-less, amorphous shadow that had no loyalty in ways that made traditional warfare plausible.

To accommodate the new threat to national security, the DoD requested even broader exceptions in the aftermath of 9/11. In 2003, the DoD sought an exemption from being required to obtain an incidental take permit pursuant to the Migratory Bird Treaty Act; the DoD claimed that being required to obtain such a permit would signifi-

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thorize a waiver if "in the paramount interest of the United States to do so"); Safe Drinking Water Act, 42 U.S.C. § 300h-7(h) (2014) (permitting the President to exempt application of the statute if he determines that it is "in the paramount interest of the United States to do so"); Toxic Substances Control Act, 15 U.S.C.A. § 2621 (2014) (exempting application of the statute when it is "necessary in the interest of national defense" and requiring notice of the waiver in the Federal Register, unless such publication would itself be contrary to national security). *See also* DAVID M. BEARDEN, CONG. RESEARCH SERV., RS22149, EXEMPTIONS FROM ENVIRONMENTAL LAW FOR THE DEPARTMENT OF DEFENSE: AN OVERVIEW OF CONGRESSIONAL ACTION 1–6 (2006), *available at* https://www.hsdl.org/?view&did=713543, *archived at* https://perma.cc/FT73-8XMT.

5 10 U.S.C. § 2808(a) (2014); Exec. Order No. 13,235, 66 Fed. Reg. 58,343 (Nov. 16, 2001) (President George W. Bush invoked the § 2808(a) authority on November 16, 2001).

6 *See supra* note 4 and accompanying text.

7 Stacy J. Silveira, *The American Environmental Movement: Surviving Through Diversity*, 28 B.C. ENVTL. AFF. L. REV. 497, 504–510 (2001).

8 Tiffany N. Tisler, *Federal Environmental Law Waivers and Homeland Security: Assessing Waiver Application in Homeland Security Settings at the Southern Border in Comparison to national Security Settings Involving the Military*, 42 U. TOL. L. REV. 777, 782 (2011).

9 *See id.* at 782–83.

10 *Id.*

cantly delay training exercises.[11] Agreeing, Congress granted an interim exemption for incidental takes during military readiness activities.[12] Likewise, the DoD was granted an even broader exemption — which the DoD has since invoked — under the Marine Mammal Protection Act for national defense purposes.[13] Moreover, a potential exemption was also granted under the Endangered Species Act (ESA) that would allow the Secretary of the Interior to exempt military lands from critical habitat designation so long as the Department of the Interior was satisfied that the DoD was providing a benefit to the species through some other mitigation.[14]

The DoD further sought broader exemptions under Solid Waste Disposal Act, the Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund), and the Clean Air Act, but those efforts have not been successful thus far.[15] Perhaps consequently, requests for expanded exemptions from environmental laws have ceased altogether.[16]

B. NEPA Non-Exceptionalism

Notably, the National Environmental Policy Act (NEPA) — which requires federal administrative agencies to take a considerable "hard look" at environmental factors prior to major undertakings — does not contain any express statutory exemption for national security purposes found in other major environmental statutes.[17] Perhaps more importantly, courts have made it clear that NEPA applies to military branches and activities without exception.[18]

Despite this omission and the judicial decisions, scholars have noted that the language of NEPA provides "sufficient flexibility to prevent it from being a barrier to the achievement of national security goals."[19] Moreover, the regulations accompanying

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11 Bearden, *supra* note 4, at 4.
12 *Id.*
13 *Id.* at 4–5.
14 *Id.* at 4.
15 *Id.* at 1.
16 Mark P. Nevitt, *Defending the Environment: A Mission for the World's Militaries*, 36 U. Haw. L. Rev. 27, 83 (2014) (stating that "[d]espite some requests for broader exemptions and fears of frontal wholesale neutering of environmental regulation of the military, the environmental statutory scheme as it applies to the U.S. military is intact and remains strong.").
17 *See* National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4370h (2014).
18 *See* Weinberger v. Catholic Action of Haw./Peace Educ. Project, 454 U.S. 139, 140–41, 146 (1981) (holding that the Navy was not exempt from NEPA but also was not required to prepare a hypothetical environmental impact statement when considering the impact of deploying nuclear weapons); Hudson River Sloop Clearwater, Inc. v. Dep't of the Navy, 891 F.2d 414, 420 (2nd Cir. 1989) (holding that the Navy is required by NEPA to assess the impact of deploying nuclear weapons); Concerned About Trident v. Rumsfeld, 555 F.2d 817, 823 (D.C. Cir. 1976) (holding that the Navy was not exempt from the procedural requirements established by NEPA).
19 Hope Babcock, *National Security and Environmental Laws: A Clear and Present Danger?*, 25 Va. Envtl. L.J. 105, 115 (2007) (indicating that NEPA Section 101(b) provides that the government shall "use all practicable means, consistent with other essential considerations of national policy," and Section 102 requires that environmental reviews only must be conducted "to the fullest extent possible."). The Administrative Procedures Act (APA)

NEPA create an "emergency circumstances" exception in which federal agencies must consult with the White House Council on Environmental Quality (CEQ) to make "alternative arrangements" when "emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations" and the statutory requirements of NEPA.[20] Still, this exception has historically been innocuous.[21]

1. JUDICIALLY-IMPOSED NEPA EXCEPTIONALISM

In the way that only they can, while claiming that there is no national security exception to NEPA, courts have effectively created a national security exception. Because NEPA is a procedural statute, it carries no enforceable penalties, at least in the traditional sense; for agencies failing to comply or inadequately complying with NEPA mandates, opposing parties must seek injunctions.[22] Accordingly, the vast majority of the NEPA cases addressing military exceptionalism have been within the context of injunctions.[23]

However, injunctive relief is "an extraordinary remedy that may only be awarded upon a clear showing that the plaintiff is entitled to such relief" [24] by establishing that: (1) the plaintiff is likely to succeed on the merits; (2) the plaintiff is likely to suffer irreparable harm in the absence of preliminary relief; (3) the balance of equities tips in the plaintiff's favor; and (4) an injunction is in the public interest.[25] It is not enough that there is a mere *possibility* that the plaintiff will suffer some irreparable harm without judicial relief; rather, it must be *likely* that the plaintiff will experience irreparable harm.[26] Even still, the court must balance the competing claims of injury and necessity as well as balance the effects on each party of either granting or withholding relief.[27] Nevertheless, this balancing is further influenced by the required consideration of public

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excludes from its definition of "agency" all "military authority exercised in the field in time of war or in occupied territory[,]" which, if interpreted narrowly, would provide the military and its administrative overseers with yet another exception. *Id.* at 116; 5 U.S.C. § 551(1)(G), 701(b)(1)(G) (2014); Sarah E. Light, *The Military-Environmental Complex*, 55 B.C.L. REV. 879, 889 (2014).

20 40 C.F.R. § 1506.11 (2015).

21 *See* Babock, *supra* note 19, at 115–16.

22 Monsanto Co. v. Geertson Seed Farms, 561 U.S. 139, 157 (2010) (citing Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7 (2008)).

23 *See* Charles J. Gartland, *At War and Peace with the National Environmental Policy Act: When Political Questions and the Environment Collide*, 68 A.F. L. REV. 27, 44–45 (2012).

24 *Winter*, 555 U.S. at 22 (citing Mazurek v. Armstrong, 520 U.S. 968, 972 (1997) (per curiam)).

25 *Id.* at 20 (citing Munaf v. Geren, 553 U.S. 674, 689–90 (2008); Amoco Prod. Co. v. Gambell, 480 U.S. 531, 542 (1987); Weinberger v. Romero-Barcelo, 456 U.S. 305, 311–12 (1982)) (holding that preliminary injunction was not appropriate to enjoin the U.S. Navy from using sonar in training exercises because, even if irreparable injury had been shown, the public interest in the Navy conducting effective, "mission-critical" training exercises outweighed the harm).

26 *Id.*

27 *Amoco Prod. Co.*, 480 U.S. at 542.

interest.[28] For military exceptionalism, elements 3 and 4 — balancing the inequities of granting or denying the injunction and public interest considerations — are critically influential.

Since the beginning of NEPA litigation, despite the lack of an express exception, courts have acknowledged that national security missions and activities are uniquely exceptional in the context of environmental law because of the ultimate interest served, an interest that is wholly unlike the mission of other federal agencies subject to NEPA requirements.[29] In the context of national security and military readiness, pitting the public interest in national defense against the public interest in knowing that federal agencies are complying with environmental laws results in a curious quandary: "[i]ssuing an injunction against an agency engaged in national defense activity because of a NEPA violation can amount to a judicial prioritization of NEPA's environmental process over national defense."[30] In this way, "an injunction essentially amounts to a declaration from the court as to the relative importance of the particular national defense activity at hand."[31]

Yet, like the exceptions expressly recognized by other major federal environmental statutes, the degree to which courts have weighed other inequities and the public interest against national security and military readiness has fluctuated.[32] This flux has

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28 *Romero-Barcelo*, 456 U.S. at 312.

29 *See, e.g.*, McQueary v. Laird, 449 F.2d 608, 612 (10th Cir. 1971) (denying an injunction to prevent the Army from storing chemical and biological weapons in the Rocky Mountain Arsenal in Colorado, stating "[t]he challenges raised by the appellants in this case fall within that narrow band of matters wholly committed to official discretion which, in recognition of the needs involved in national security, do not blend with tests in an evidentiary hearing."); Nielson v. Seaborg, 348 F. Supp. 1369, 1372 (D. Utah 1972) (allowing the Atomic Energy Commission to conduct nuclear test detonations, finding it "within that narrow band of matters wholly committed to official discretion" and a "result of the delicate questions of national security raised and the constitutional placement of those concerns with the political departments of government." (citing *McQueary*, 449 F.2d at 608); Concerned About Trident v. Schlesinger, 400 F. Supp. 454, 482 (D. D.C. 1975) (refusing to enjoin the siting and construction of a nuclear submarine facility in Washington during the height of the nuclear arms race during the Cold War, likewise finding it "within that narrow band of matters wholly committed to official discretion both because of the delicate security issues . . . and the constitutional delegation of those concerns to the political departments of our government [namely, the Navy]."). On appeal, the D.C. Circuit in *Concerned About Trident v. Schlesinger* did not endorse the national security exception in NEPA as the district court had, but upheld the injunction nonetheless and remanded for NEPA insufficiencies. Concerned About Trident v. Rumsfeld, 555 F.2d 817, 830 (D.C. Cir. 1976). In fact, the D.C. Circuit reprimanded the Navy, stating "[t]here is no support in either the statute or the cases for implying a 'national defense' exemption from NEPA[,]" and that characterizing it as such was "a flagrant attempt to exempt from the mandates of NEPA all such military actions under the overused rubric of 'national defense.'" *Id.* at 823.

30 Gartland, *supra* note 23, at 44.

31 *Id.*

32 *See supra* note 29 and accompanying text. *See also, e.g.*, Comm. for Nuclear Responsibility, Inc. v. Seaborg, 463 F.2d 796, 798 (D.C. Cir. 1971), *aff'd sub nom.* Comm. for Nuclear Responsibility, Inc. v. Schlesinger, 404 U.S. 917 (1971) (affirming the district court's refusal to enjoin a nuclear detonation test and stating that enjoining the detonation would

spanned the spectrum of deference to military endeavors from a near-automatic denial of injunction to a complete disregard for military interests in the balancing analysis.[33]

2. *WINTER* REBIRTH OF MILITARY EXCEPTIONALISM

Winter v. Natural Resources Defense Council (NRDC) is the apex of national defense NEPA cases.[34] Litigated in the midst of the War on Terror in Iraq and Afghanistan, the U.S. Supreme Court vacated a preliminary injunction entered against the Navy in *Winter*, relying almost exclusively on the Navy's role in maintaining national security as justification for vacatur.[35]

The NRDC brought suit against the Navy for conducting mid-frequency active (MFA) sonar near the coast of Southern California during integrated training exercises, the successful demonstration of which is necessary for deploying this particular form of attack in antisubmarine warfare.[36] The issue for NRDC, however, was that these waters contain at least thirty-seven species of marine mammals that are susceptible to injury

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create "potential harm to national security and foreign policy"); Barcelo v. Brown, 478 F. Supp. 646, 707 (D. P.R. 1979), *aff'd in part, vacated in part sub nom.* Romero-Barcelo v. Brown, 643 F.2d 835 (1st Cir. 1980), *rev'd sub nom.* Weinberger v. Romero-Barcelo, 456 U.S. 305 (1982) (denying injunction to prevent naval training off the coast of Puerto Rico, despite the Navy not completing an EIS and violating other environmental laws, because an injunction "would cause grievous, and perhaps irreparable harm, not only to Defendant Navy, but to the general welfare of this Nation. . . . [T]he training that takes place . . . is vital to the defense of the interests of the United States. . . . Thus, our ability to maintain a well trained and effective naval force, even in time of peace, is essential to the National welfare."). *But see, e.g.*, People of Enewetak v. Laird, 353 F. Supp. 811, 814, 821 (D. Haw. 1973) (enjoining the Air Force from conducting tests to analyze the "cratering" effect of nuclear blasts because without addressing the balance of the importance of environmental protection and the value the tests would provide to national security); Natural Res. Def. Council, Inc. v. Callaway, 524 F.2d 79, 94–95 (2nd Cir. 1975) (reversing the district court's denial of an injunction to prevent the Navy from dredging a river from Long Island Sound to a Navy submarine base in Connecticut to accommodate a new fast-attack, nuclear-powered submarine fleet without addressing the implications to the public interest or military readiness); Makua v. Rumsfeld, 163 F. Supp. 2d 1202, 1221–1222 (D. Haw. 2001) (enjoining the Army from training with live ammunition despite the recognition that "the public has a substantial interest in the national well-being and security of the nation" because other, less impactful training sites were available, though not as accessible, and the interest in maintaining the environment, cultural resources, and endangered species outweighed the national security benefit).

33 *See supra* note 32 and accompanying text.

34 555 U.S. 7 (2008). Hailing it as the "capstone of national defense" considerations in NEPA cases, one commentator has acknowledged how transcendent this case is because: (1) it is one of the few NEPA cases concerning the implications of NEPA on national defense that has ever made it to the Supreme Court; (2) it focuses on the injunction, which is arguably the most impactful mechanism on national defense activities; and (3) the "Court reinvigorated the long-dormant theme of military exceptionalism, last raised . . . in *Concerned About Trident* . . . and *Wisconsin v. Weinburger*." Gartland, *supra* note 23, at 60.

35 *Winter*, 555 U.S. at 8.

36 *Id.* at 7.

from the sonar.[37] NRDC sought declaratory and injunctive relief for violating NEPA, among other federal laws, by failing to prepare an environmental impact statement (EIS) prior to conducting the training exercises.[38] The district court entered a preliminary injunction, which prohibited the Navy from using the MFA sonar for training purposes.[39] The Ninth Circuit disagreed to an extent, holding that the injunction was overbroad and remanded to the district court for a remedy tailored narrowly to allow the Navy some flexibility in its training exercises.[40] On remand, the district court again imposed a preliminary injunction, establishing six restrictions on the use of MFA sonar.[41]

Particularly troublesome for the Navy, the restrictions required the Navy to implement a 2,200-yard sonar shutdown zone and to power the sonar down to six decibels when "surface ducting" conditions are detected.[42] Accordingly, the Navy sought relief from the CEQ.[43] The CEQ, pursuant to the military exception in the Coastal Zone Management Act, authorized the Navy to implement "alternative arrangements" to NEPA compliance due to the "emergency circumstances."[44] Based on this exception granted by the CEQ, the Navy sought to have the injunction vacated, which both the district court and the Ninth Circuit denied.[45]

In reversing the preliminary injunction, the Supreme Court heralded a marked rebirth and continuation of military exceptionalism in environmental law. In conducting the preliminary injunction analysis, particularly balancing the inequities of the injunction and weighing the public interest, the Court emphasized that, "even if [the NRDC has] shown irreparable injury from the Navy's training exercises, any such injury is outweighed by the public interest and the Navy's interest in effective, realistic training of its sailors."[46] The lower courts did not give sufficient weight to the impact that the injunc-

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37 *Id.* (noting that the plaintiffs alleged this harm but the Navy disputed the fact, contending that sonar training had been conducted off of the coast of Southern California for over forty years without any documented injury to marine mammals).

38 Natural Res. Def. Council, Inc. v. Winter, 645 F. Supp. 2d 841, 846–47 (C.D. Cal. 2007).

39 *Id.* at 855.

40 Natural Res. Def. Council, Inc. v. Winter, 502 F.3d 859, 864–865 (9th Cir. 2007); Natural Res. Def. Council, Inc. v. Winter, 508 F.3d 885, 887 (9th Cir. 2007).

41 Natural Res. Def. Council, Inc. v. Winter, 530 F. Supp. 2d 1110, 1118–21 (C.D. Cal. 2008).

42 Decision Memorandum Accepting Alternative Arrangements for the U.S. Navy's Southern California Operating Area Composite Training Unit Exercises (COMPTUEXs) and Joint Task Force Exercises (JTFEXs) Scheduled to Occur Between Today and January 2009, 73 Fed. Reg. 4,189-01, 4,191 (Jan. 24, 2008). Surface ducting conditions are characterized by a layer of water at least 100 feet below the surface that is a homogenous temperature. Such conditions can cause sound to travel at higher intensities than normal, which can be detrimental to marine wildlife. Alicia Schaffner, *National Security vs. Whales: The Navy and the Natural Resources Defense Counsel Battle Their Way to the Supreme Court*, 2 SEA GRANT L. & POL'Y J. 82, 92 (2008).

43 *Id.*

44 *Id.* at 4189, 4191 (using the emergency exception under 16 U.S.C. § 1371(f) (2014)).

45 Natural Res. Def. Council, Inc. v. Winter, 527 F. Supp. 2d 1216, 1239 (C.D. Cal. 2008); Natural Res. Def. Council, Inc. v. Winter, 518 F.3d 658, 681 (9th Cir. 2008).

46 Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7, 23 (2008).

tion, even the narrowly-tailored injunction, would have on the Navy's ability to effectively perform training exercises.[47] The "mission-critical" use of MFA sonar, it found, is vital to ensuring that the Navy is not forced by an environmental statute "to deploy an inadequately trained antisubmarine force[, which] jeopardizes the safety of the fleet. Active sonar is the only reliable technology for detecting and tracking enemy diesel-electric submarines, and the President — the Commander in Chief — has determined that training with active sonar is 'essential to national security.'"[48] Moreover, the Court determined that the public interest in having a well-trained Navy "plainly outweighs the interests" espoused by the NRDC.[49] In fact, the issue of where the public interest should lie did not even "strike [the Court] as a close question."[50]

3. POST-*WINTER* EXCEPTIONALISM

Post-*Winter*, courts have indicated that a party seeking injunction must continue to demonstrate each of the four elements to establish the appropriateness of the preliminary injunction.[51] However, courts have simultaneously employed a sliding scale for the degree of strength necessary for each element, such that a very strong showing of one element may balance out a weak showing of another, as was the case in *Winter*.[52] For national security and military readiness, the implication is that the mere involvement of military matters may be sufficient to outweigh any proven, irreparable injury.

Some commentators have indicated that the *Winter* holding extends military exceptionalism no further than its reach at the outset of the case.[53] This seems to indicate that the holding leaves it to the lower courts to exercise proper Administrative Procedure Act process in considering military interests when weighing the efficacy of a preliminary injunction.[54] Yet others have predicted that the *Winter* holding reaffirmed the place that military exceptionalism has in environmental law, including NEPA, so much so that an implied exception for the military is inevitable.[55]

In "plainly" holding that the public interest in national security and military readiness outweighs the possible irreparable harm to marine mammals, the Supreme Court provided no explanation for *why* the environmental interests must be relegated to a secondary consideration.[56] This unabashed deference to defense purposes, at the very

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47 *See id.* at 28–29.

48 *Id.* at 26 (the Court also quotes President Theodore Roosevelt, who stated "the only way in which a navy can ever be made efficient is by practice at sea, under all the conditions which would have to be met if war existed." President's Annual Message, 42 Cong. Rec. 67, 81 (1907)).

49 *Id.*

50 *Id.*

51 ALBERT M. FERLO ET AL., THE NEPA LITIGATION GUIDE 227 nn.127–28 (2d ed. 2012).

52 *Id.*

53 *See* Gartland, *supra* note 23, at 66.

54 *See id.*

55 *Id.* (citing Emily Donovan, *Deferring to the Assertion of National Security: The Creation of a National Security Exemption Under the National Environmental Policy Act of 1969*, 17 HASTINGS W-NW. J. ENVTL. L. & POL'Y 3, 11–12 (2011); William Krueger, *In the Navy: The Future Strength of Preliminary Injunctions Under NEPA in Light of NRDC v. Winter*, 10 N.C. J.L. & Tech. 423, 441–44 (2009)).

56 *See* Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7, 25–33 (2008).

least, represents that the sliding scale will be almost impossibly tipped in favor of the military even without an express exception detailed in NEPA.[57] Ironically, despite this overwhelming deference, environmentalists have an opportunity to further an environmental agenda.

III. The Environmental Security Nexus

Inevitably, such broad and blatant military exceptionalism further perpetuated the notion that military readiness and environmental protectionism do not (and arguably cannot) coexist in the U.S. From an environmentalist's perspective, these exemptions exemplify an allowance to degrade the environment haphazardly so long as it is done in the name of national security.[58] At the same time, however, those favoring military exceptionalism consider these grants of power narrow and desire even broader protections to combat the perceived "encroachment" of environmental law into military readiness objectives.[59]

Despite this seeming arms race between military readiness and environmental protection, the two missions are not incompatible. "National security is not just about fighting forces and weaponry. It relates to watersheds, croplands, forests, genetic resources, [and] climate . . . ."[60] In fact, "the DoD itself has demonstrated that national security and the military's mission are deeply intertwined with the need to reduce energy use and develop alternative and renewable fuel sources."[61] Moreover, the underlying goals of both environmental law and military readiness missions are inextricably linked: "[b]oth share the ultimate goals of ensuring [the nation's] well-being and preserving our rich national heritage."[62]

In reaching this ultimate goal, then, recognizing the importance of protecting natural resources is crucial to long-lasting national security. At the same time, to convince the military to take up an environment-centric approach, ultimate environmental goals must be couched in the context of a mission.[63] Otherwise, even if an essentially environ-

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57 *See* Donovan, *supra* note 55, at 12 (noting that "the Court did not explain why the proper determination of where the public interest lies was not a close question, and it failed to include a discussion of when military interests will not trump environmental concerns. . . . the Court simply declared that this was not a close question and deferred to the Navy's assertion of national security concerns. It seems, then, that the national security argument is a surefire way to circumvent the requirements of NEPA.").

58 *See* Light, *supra* note 19, at 880–81.

59 *Id.* at 881; Babcock, *supra* note 19, at 117 (stating, "The armed forces have never liked this system of Presidential waivers. The scope of these waivers is too narrow, and the time limits placed on them are not compatible with many training activities. Since these waivers are intended for one-time use only, the vast number of training exercises conducted on hundreds of military installations across the country makes them burdensome to obtain.").

60 Tisler, *supra* note 8, at 800 (citing P.H. Liotta, *Through the Looking Glass: Creeping Vulnerabilities and the Reordering of Security*, 36 Security Dialogue 49, 65 (2005)).

61 Light, *supra* note 19, at 891.

62 Stephen Dycus, National Defense and the Environment 3 (1996).

63 Braden R. Allenby, *Environmental Security: Concept and Implementation*, 21 Int'l Pol. Sci. Rev. 5, 7 (2000) (stating "environmental issues can no longer be thought of as ancillary,

mental matter has the capacity to threaten the nation in some form, the "institutional culture" of the military renders it unlikely to act, leaving it to national environmentally-minded institutions to address these issues.[64]

Through a recent paradigm shift — and an uncharacteristic win for environmentalists in national security and military readiness matters — the military has recognized the mission-critical need for an ostensibly pro-environment stance: renewable energy use on domestic military installations.

IV. RENEWED (AND RENEWABLE) MILITARY ENERGY OPERATIONS

Military readiness requires vast resources, both domestic and abroad. To maintain one of the world's largest military forces, that is a given. But as the DoD has recognized, military readiness has been held captive by reliance on petroleum.[65] This reliance results in operational risks to deployed forces attempting to move fuel via vulnerable convoys, security risks posed by petroleum passing through distribution networks in politically unstable channels, and susceptibility to the volatile petroleum market.[66]

While these energy implications seem distant, only affecting U.S. interests abroad, the domestic energy policies under which the military has traditionally operated position the military — and thus national security — at just as high of a risk. Until recently, domestic energy security had only been tethered to U.S. importation and dependence on foreign oil and the "volatile" relationships thus created.[67] However, a threat unrelated to foreign oil dependence looms. Military installations have relied almost exclusively on the commercial electric grid to obtain electricity, which "places the continuity of critical missions at risk."[68] The "key problem" with such reliance is:

[C]ritical missions, such as national strategic awareness and national command authorities, are almost entirely dependent on the national transmission grid. About 85% of the energy infrastructure upon which DoD depends is commercially owned, and 99% of the electrical energy DoD installations consume originates outside the fence. . . . [T]he grid fragile, vulnerable, near its capacity limit, and outside of DoD control. . . . [N]either

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rather than integral components of industrial, social, and economic systems" in order for the military to be sold on its incorporation into the greater national security scheme.).

64 Tisler, *supra* note 8, at 801.

65 *See* DEP'T OF DEF., SUSTAINABILITY PERFORMANCE REPORT FY 2013 2 (2013), *available at* http://www.denix.osd.mil/sustainability/loader.cfm?csModule=security/getfile&pageid=35931 [hereinafter SPR 2013].

66 SPR 2013, *supra* note 65, at 2. A 2010 study showed that during the later years of the wars in Iraq and Afghanistan, half of the Army convoys moving through those countries were to transport fuel. Tom Spahn, *Our Blue Water Navy Goes Green*, 1 SEATTLE J. ENVTL. L. 81, 98 (2011) (citing *Casualty Costs of Fuel and Water Resupply Convoys in Afghanistan and Iraq*, ARMY-TECHNOLOGY.COM, (Feb. 26, 2010), http://www.army-technology.com/features/feature77200 (last visited March 7, 2015), *archived at* http://perma.cc/3VMM-N3HU). The report concluded that a 10% reduction in the fuel use over five years would result in a reduction of thirty-five casualties of troops moving fuel via these convoys. *Id.*

67 Jennifer Huang, *Energy Security, Green Fleets, and Green Warriors*, 8 FLA. A & M U. L. REV. 263, 266 (2013).

68 SPR 2013, *supra* note 65, at 2.

the grid nor on-base backup power provides sufficient reliability to ensure continuity of critical national priority functions and oversight of strategic missions in the face of a long term (several months) outage.[69]

Because the installations do not control the electrical power supply that serves them, natural disruptions, power failures or malfunctions, and targeted sabotage capable of impeding or destroying the commercial electric grid coalesce into an ever-present vulnerability in domestic and international military readiness.[70]

Natural and logistical impediments aside, in the age of cyber insecurity, even our nation's seemingly most secure locations are significantly vulnerable to attack. The backup power at most installations would only allow them to operate for a matter of hours or, at most, a few days.[71] A number of domestic installations are critical to the strategic and tactical functions of the military and must operate around the clock, meaning this system is "wholly dependent on continued power to the buildings and equipment involved."[72] Without these strategic forces, global operations could be significantly compromised. Furthermore, the mission of many installations is to be able to readily deploy forces at a moment's notice.[73] In the context of a domestic threat, the overarching mission of preparedness is paramount to national security.[74]

The threat of general cyber security is alarmingly real to our nation's leaders. Following the defeat of a cyber security bill in 2012, Susan Collins, a member of the Senate Homeland Security Committee warned of cyber security issues, "In all my years on the Homeland Security Committee, I cannot think of another issue where the vulnerability is greater and we've done less . . . ."[75] Moreover, warning of a "cyber Pearl Harbor," former Secretary of Defense Leon Panetta foretold that a "cyber attack perpetrated by nation states or violent extremist groups could be as destructive as the terrorist attack of 9/11. . . . Such a destructive cyber terrorist attack could paralyze the nation."[76] In sobering fact, on the domestic energy security front, thirty-one of the DoD's thirty-four most

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69 DEF. SCI. BD., REPORT OF THE DEFENSE SCIENCES BOARD TASK FORCE ON DOD ENERGY STRATEGY: "MORE FIGHT — LESS FUEL" 18 (2008), *available at* http://www.acq.osd.mil/dsb/reports/ADA477619.pdf, *archived at* http://perma.cc/S8GU-DD7J [hereinafter MORE FIGHT — LESS FUEL].

70 SPR 2013, *supra* note 65, at 2 (noting that not only does a potential prolonged power failure threaten homeland security, but it also stymies the "power projection" on which the U.S. military has relied, which in turn threatens operations abroad).

71 Richard B. Andres & Hanna L. Breetz, *Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications*, 262 STRATEGIC FORUM 1, 3 (2011), *available at* http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?ots591=0c54e3b3-1e9c-be1e-2c24-a6a8c7060233&lng=en&id=128568, *archived at* http://perma.cc/GW8G-B2B5.

72 MORE FIGHT — LESS FUEL, *supra* note 69, at 20.

73 *See id.*

74 *See id.* at 21.

75 Charles Anderson, *Cybersecurity Bill Dead After Second Rebuff*, REUTERS (Nov. 14, 2012), http://www.reuters.com/article/2012/11/15/us-usa-cyber-legislation-idUSBRE8AE04720121115 (last visited March 7, 2015), *archived at* http://perma.cc/8QM5-MQ2D. *See also* Anderson, *supra* note 1, at 49.

76 Jim Garamone, *Panetta Spells Out DOD Roles in Cyberdefense*, AM. FORCES PRESS SERV. (Oct. 11, 2012), http://www.defense.gov/news/newsarticle.aspx?id=118187, *archived at* http://perma.cc/FN2B-HD4C. *See also* Anderson, *supra* note 1, at 49.

critical domestic facilities relied on commercially-operated electricity grids as of 2009.[77] But, in fortifying domestic military bases to make them more resilient to commercial power outages, incentives for a cyber (or even physical) attack on the grid are reduced.[78]

A. RENEWABLE ENERGY INITIATIVE

Despite, or perhaps in recognition of, these dire energy challenges, the DoD, with the encouragement of congressional and presidential mandates, has committed to using and developing renewable energy resources, both domestic and abroad.[79] This commitment is an about-face for military energy consumption. As the single largest consumer of energy (both petroleum and electricity) in the U.S.,[80] the DoD expended almost $20 billion on energy costs in 2011.[81] Operational energy costs made up the bulk of this bill, costing roughly $15.2 billion.[82] Facility energy, on the other hand, the focus of this article, cost about $4.1 billion to manage over 500 installations globally.[83] This equates to roughly 223,800 billion British thermal units, representing 26% of the DoD's total energy consumption that year.[84] Although facility energy accounted for just a quarter of the DoD's energy consumption, it accounted for almost 40% of the greenhouse gas emissions.[85] Mirroring the commercial sector, approximately 80% of the entire facility energy supply was from electricity and natural gas, with coal, fuel oil, and liquefied petroleum gas comprising most of the remainder.[86] Interestingly, and in contrast to the commercial sector, none of the facility energy supply in 2011 came from renewable energy sources.[87]

The military energy use outlook has shifted dramatically in recent years. In 2008, the DoD began an earnest investigation into the key energy challenges facing the military.[88] The elite task force affirmed in their report, *More Fight — Less Fuel*, that one of the

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77 Anderson, *supra* note 1, at 49.

78 Andres & Breetz, *supra* note 71, at 4.

79 *See generally* DEP'T OF DEF., Directive No. 4180.01, DoD Energy Policy 1–11 (Apr. 16, 2014), *available at* http://www.dtic.mil/whs/directives/corres/pdf/418001_2014.pdf, *archived at* http://perma.cc/3KE8-5AZX.

80 MORE FIGHT — LESS FUEL, *supra* note 69, at 11.

81 OFFICE OF THE DEPUTY UNDER SEC'Y OF DEF. (INSTALLATIONS & ENV'T), ANNUAL ENERGY MANAGEMENT REPORT: FISCAL YEAR 2011 14 (2012), *available at* http://www.acq.osd.mil/ie/energy/library/FY.2011.AEMR.pdf, *archived at* http://perma.cc/9LPP-L2UF [hereinafter AEMR FY 2011] (indicating that $3.9 billion was used to power, heat, and cool buildings, and $0.2 billion was used for supply fuel to non-tactical vehicles). Facility energy includes all of the energy used on fixed military installations and non-tactical vehicles, whereas operational energy includes all of the energy required for training, moving, and sustaining military forces and weapons. *Id.* at 4 n.2, 14.

82 *See id.* at 14 (calculated by subtracting the $4.1 billion attributed to operational costs from the $19.3 billion attributed to the overall energy costs).

83 *Id.*

84 *Id.*

85 *Id.* at 4.

86 *Id.* at 15.

87 *Id.*

88 PEW CHARITABLE TRUSTS, POWER SURGE: HOW THE DEPARTMENT OF DEFENSE LEVERAGES PRIVATE RESOURCES TO ENHANCE ENERGY SECURITY AND SAVE MONEY ON U.S. MILITARY BASES 1 (2014), *available at* http://www.pewtrusts.org/~/media/legacy/uploadedfiles/peg/pub-

nation's most significant energy security threats is the military's reliance on the aging and vulnerable commercial power grid.[89] *More Fight — Less Fuel* was the impetus for the military's immediate response to a broad range of initiatives launched to address this type of national security threat.[90]

Likewise recognizing the risk that the DoD's energy portfolio posed to national security, Congress commanded the DoD to annually submit to congressional defense committees a comprehensive plan detailing annual energy performance goals for military installations.[91] But the mandate did not stop at just reporting; remarkably, it required the DoD "to produce or procure not less than 25 percent of the total quantity of facility energy it consumes within its facilities during fiscal year 2025 and each fiscal year thereafter from renewable energy sources . . . [and] to produce or procure facility energy from renewable energy sources whenever the use of such renewable energy sources is consistent with the energy performance goals and energy performance master plan . . . ."[92] In other words, the DoD must not only satisfy a strict quota of meeting 25% of its facility energy needs from renewable resources, but it must also specifically seek out renewable resources, either via production or procurement, whenever possible.[93] Notably, however, these requirements only target facility energy, not operational energy in combat capacities.[94]

This mandate seems to have spurred a renewable energy revolution in military operations. In 2012, President Obama challenged the DoD to deploy at least three gigawatts (GW) of renewable energy from wind, solar, biomass, and geothermal sources on military installations by 2025.[95] With impressive zeal, the Air Force has committed to increasing renewable energy consumption to 25% by 2025 as well as deploying 1 GW of on-site capacity by 2016.[96] The Army likewise has committed to achieving 25% renewable energy consumption by 2020 and deploying 1 GW of renewable energy on Army installations by 2025.[97] Also, the Navy has committed to deriving 50% of its energy from

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lications/report/PEWDoDReport2013KS10020314pdf.pdf, *archived at* http://perma.cc/AER8-ZZS3.

89 MORE FIGHT — LESS FUEL, *supra* note 69, at 53–61.

90 PEW CHARITABLE TRUSTS, *supra* note 88, at 1.

91 10 U.S.C. § 2911(b) (2014).

92 *Id.* § 2911(e).

93 *See id.*

94 Light, *supra* note 19, at 909.

95 Office of the Press Sec'y, The White House, Fact Sheet: Obama Administration Announces Additional Steps to Increase Energy Security, (Apr. 11, 2012), http://www.whitehouse.gov/the-press-office/2012/04/11/fact-sheet-obama-administration-announces-additional-steps-increase-ener, *archived at* http://perma.cc/5K9T-C5FC [hereinafter White House Fact Sheet] (noting that this goal would be sufficient to power 750,000 homes and that this military-wide effort followed the commitment made by President Obama in that year's State of the Union Address to develop one gigawatt of renewable energy on Navy installations by 2020).

96 AM. COUNCIL ON RENEWABLE ENERGY, *Setting the Scene: Renewable Energy for National Security*, *in* RENEWABLE ENERGY FOR MILITARY INSTALLATIONS: 2014 INDUSTRY REVIEW 4, 5 (Am. Council on Renewable Energy ed., 2014), *available at* http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf, *archived at* http://perma.cc/D3JL-AM54.

97 *Id.*

renewable resources by 2020 and deploying 1 GW of renewable energy on Navy installations by 2020.[98]

As of 2013, the interim goals to meet 25% of the military-wide energy needs with renewable by 2025 were below the target rate of increase of 5%.[99] However, the DoD explained that, due to a "mission-driven decision," the military had focused on increasing the capacity of installations to produce their own renewable energy rather than purchasing renewable energy credits on the market.[100] This signifies a regenerated energy operation, indeed.

B. Renewable Energy Initiative in Practice

To effectuate this goal of energy security through increased renewable energy use, the DoD must reduce the potential effect of a successful targeted attack on the grid by physically creating an "island [of] identified critical infrastructure" that would continue to operate critical assets relying on local energy sources, including renewable energy.[101] This may effectively be done through "microgrids" — local, on-site power generation using local, renewable energy sources under local control.[102] Microgrid technology — an offshoot of "smart grid" technology that can better communicate with consumers for electricity needs — connects modularly with power generation sources and can host a number of sources, such as petroleum-fueled generators, solar panels, and wind sources.[103] While the DoD is finalizing microgrid logistics,[104] demonstration projects have provided positive, invaluable information on their efficacy to be safely isolated from the commercial grid when necessary.[105] However, under normal operating conditions, the microgrids would be connected to the commercial electric grid so that the military would still be able to use that grid as needed or sell local utility providers the excess energy produced from the renewable source.[106]

Domestic U.S. military installations encompass about 28 million acres of land (16 million acres of which are lands withdrawn by the Department of Interior's Bureau of Land Management (BLM) for defense purposes).[107] Located mostly in western states,

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98 *Id.*

99 SPR 2013, *supra* note 65, at 33.

100 *Id.*

101 Anderson, *supra* note 1, at 50.

102 *Id.* at 48, 50.

103 Siddhartha M. Velandy, *The Energy Pivot: How Military-Led Energy Innovation Can Change the World*, 15 VT. J. ENVTL. L. 672, 719–20 (2014). For a description of the complex microgrid technology, *see* Mani Vadari & Gerry Stokes, *Utility 2.0 and the Dynamic Microgrid*, 151 NO. 11 PUB. UTIL. FORT. 42, 42–64 (2013).

104 *See* Roger Feldman, *The Keys to Avoiding Microgrid Lock: National Security Through Public-Private Partnerships*, *in* RENEWABLE ENERGY FOR MILITARY INSTALLATIONS: 2014 INDUSTRY REVIEW 52, 53 (Am. Council on Renewable Energy ed., 2014), *available at* http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf, *archived at* http://perma.cc/D3JL-AM54.

105 Anderson, *supra* note 1, at 50.

106 Jeremy S. Scholtes, *On Point for the Nation: Army and Renewable Energy*, 34 ENERGY L.J. 55, 60 (2013).

107 Press Release, U.S. Department of the Interior, Interior and Defense Departments Join Forces to Promote Renewable Energy on Federal Lands (Aug. 6, 2012), *available at* http://

these lands have significant renewable energy potential, especially for wind (onshore and offshore), solar, and geothermal energy.[108] Military installations are unique as they often have a buffer area surrounding the property to protect the installation's critical functions.[109] This could make these installations prime real estate for renewable energy projects.[110] With millions of acres of developable lands available, successfully implementing such a massive energy overhaul requires logistical coordination with a touch of creativity and, of course, time.

In 2010, the DoD entered a Memorandum of Understanding (MOU) with the U.S. Department of Energy (DoE),[111] followed by a MOU in 2012 with the U.S. Department of the Interior (DoI).[112] The DoE MOU emphasizes expedient development of innovative energy technologies, including renewable energy technology, to better enforce energy security because energy efficiency has the ability to serve as a "force multiplier."[113] Perhaps more importantly, the DoI MOU committed the agencies to work cooperatively to develop renewable energy resources on public lands held by the DoD and lands, both onshore and offshore, held by the DoI that have been withdrawn for defense purposes through cooperation with the BLM.[114] This MOU created the Renewable Energy Partnership Plan, the goal of which is to identify and harness proven solar, wind, geothermal, and biomass sources on or near DoD installations.[115] Specifically, they agreed to develop a pilot process for interagency authorization of solar energy projects in California and Arizona and geothermal projects elsewhere and to identify potential renewable energy resources on withdrawn lands near military installations.[116] Furthermore, the partnership will explore ways in which energy could be provided by these lands directly to an installation or via a network of DoD installations.[117]

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www.doi.gov/news/pressreleases/Interior-and-Defense-Departments-Join-Forces-to-Promote-Renewable-Energy-on-Federal-Lands.cfm, *archived at* http://perma.cc/5J84-6E36 [hereinafter DoI MOU Press Release].

108 *Id.*

109 JOHN ELWOOD, DEP'T OF DEF., *Too Close for Comfort — Encroachment on Military Lands in* CONSERVING BIODIVERSITY ON MILITARY LANDS: A GUIDE FOR NATURAL RESOURCES MANAGERS, http://www.dodbiodiversity.org/ch4/index_5.html (last visited Mar. 8, 2015), *archived at* http://perma.cc/AX54-WMKS.

110 *See id.*

111 Memorandum of Understanding Between the U.S. Dep't of Energy & the U.S. Dep't of Def. Concerning Cooperation in a Strategic Partnership to Enhance Energy Sec. 1 (July 22, 2010), *available at* http://energy.gov/sites/prod/files/edg/media/Enhance-Energy-Security-MOU.pdf, *archived at* http://perma.cc/R6RJ-9G9V [hereinafter DoE MOU].

112 Memorandum of Understanding Between the Dep't of Def. & the Dep't of the Interior on Renewable Energy & a Renewable Energy Partnership Plan 1 (July 20, 2012), *available at* http://www.defense.gov/news/d20120806idmou.pdf, *archived at* http://perma.cc/S9SP-HLS3 [hereinafter DoI MOU].

113 DoE MOU, *supra* note 111, at 2–4.

114 DoI MOU, *supra* note 112, at 1–2.

115 DoI MOU Press Release, *supra* note 108.

116 DoI MOU, *supra* note 112, at 3.

117 *See id.*

Despite being primarily for military use, microgrids will, at least initially, be constructed and operated by third parties.[118] The DoD has authority to enter into energy contracts for periods of up to thirty years for "the provision and operation of energy production facilities on real property under the Secretary's jurisdiction or on private property and the purchase of energy produced from such facilities."[119] With this authority, the DoD can contract with developers for an on-site renewable energy facility without having to pay the initial capital costs and subsequently enter into power purchase agreements to purchase the energy generated.[120] Correspondingly, the DoD may lease for a period longer than five years any non-excess land under the Secretary's control — often referred to as an enhanced use lease (EUL) — so long as the land is not needed for public use and the Secretary deems it to be in the public interest or to promote national defense.[121] EULs may be used for renewable energy projects; however, the term will be limited to the useful life of the renewable energy production facility.[122]

While there are rich, complex issues surrounding contracts with non-defense developers and coordination with state utilities, those issues are beyond the scope of this article. However, one thing is clear: the privatization of utilities on military installations provides a unique opportunity to reduce economic and noneconomic inefficiencies that have plagued military energy consumption in a way that truly promotes renewable energy development.[123]

C. Renewable Energy for National Security

The military's renewable energy initiative "does not reflect a fringe environmental pursuit, but rather a necessary national security choice."[124] Despite a riveting paradigm shift in the military that incorporates a renewable energy portfolio into the national security mission, the mission is specifically for national security, not the environment.

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118 *See* Amy S. Koch, *The Policy Context For Military Renewables: Rethinking State Regulatory Issues*, *in* RENEWABLE ENERGY FOR MILITARY INSTALLATIONS: 2014 INDUSTRY REVIEW 6, 6–7 (Am. Council on Renewable Energy ed., 2014), *available at* http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf, *archived at* http://perma.cc/D3JL-AM54.

119 10 U.S.C. § 2922a(a)(2) (2014).

120 OFFICE OF THE UNDER SEC'Y OF DEF., DEPARTMENT OF DEFENSE GUIDANCE ON FINANCING OF ENERGY PROJECTS 2 (November 9, 2012), *available at* http://www.acq.osd.mil/ie/energy/library/Policy_Financing%20of%20Energy%20Projects%209Nov2012.pdf, *archived at* http://perma.cc/DNH9-PMUG [hereinafter DOD FINANCE GUIDANCE] (further noting that the DoD would pay for some or all of the costs of the new renewable energy facility either through power payments or over the lifetime of the contract with the developer).

121 *Id.* at 3–4 (providing that the lessee must make a payment for consideration in an amount not less than the fair market value of the leasehold); 10 U.S.C. § 2667(b)(1) (2014).

122 DOD FINANCE GUIDANCE, *supra* note 120, at 3–4. An EUL for a renewable energy production facility may also be subject to reporting requirements to Congress under 10 U.S.C.A. § 2662 (2014), in which case the Secretary of Defense must certify that the leased project will be consistent with the DoD's energy performance goals and master plan required by 10 U.S.C.A. § 2911 (2014). DOD FINANCE GUIDANCE, *supra* note 120, at 4.

123 Huang, *supra* note 67, at 283 (quoting Christopher J. Aluotto, *Privatizing and Combining Electricity and Energy Conservation Requirements on Military Installations*, 30 PUB. CONT. L.J. 723, 724 (2001)).

124 Velandy, *supra* note 103, at 725.

Though the initiative promises underlying environmental protection, for the DoD, this energy transition is being promulgated, rightly or wrongly, largely as a function of national security to combat the cyber security threat to the domestic, commercial electric grid.[125] The DoD, whose fundamental purpose is to protect the nation, has articulated this priority in stating that "[m]ilitary installations are generally well situated to support solar, wind, geothermal, and other forms of renewable energy, as long as the type of energy facility, its siting, and its physical and operational characteristics are carefully evaluated to avoid any impacts to the mission or readiness."[126] Likewise, "[m]ission accomplishment is the top priority for installations. Even if attractive by other measures, incompatibility with the installation's mission eliminates any energy-related proposal."[127]

At the same time, with this endgame in mind, it becomes apparent that the concept of "national security" is slowly readjusting to encompass more than just defense against armed opponents in this new era of unmanned warfare; it now necessarily incorporates environmental concerns.[128] Remarkably, the environment has been touted as the "national-security issue of the twenty-first century[,]"[129] and "sustainable development, including sustainable energy use, is a fundamental component of not only national security but global security, and . . . U.S. policy should shift to recognize the broader, more global conception of security that goes beyond mere nation-centric, military-dominated visions."[130] With this renewable energy mandate, that shift is becoming increasingly more apparent.

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125 *See* White House Fact Sheet, *supra* note 95 (stating that "[r]enewable energy is critical to making our bases more energy secure. . . . [It] will [also] increase the energy security of our nation's military installations."); SPR 2013, *supra* note 65, at 2 (indicating that the current electric supply to military installations poses a security challenge and that renewable energy can "improve resilience and thus mission readiness."); AEMR FY 2011, *supra* note 81, at 4 (stating that developing a renewable energy strategy for military facilities has a four-fold goal: (1) reducing the demand on traditional energy through conservation and energy efficiency; (2) expanding the supply of renewable energy and other forms of on-site energy; (3) enhancing the energy security of DoD installations directly; and (4) leveraging advanced technology).

126 SPR 2013, *supra* note 65, at 2.

127 Samuel Booth et al., Nat'l Renewable Energy Lab., Dep't of Energy, Technical Report NREL/TP-7A2-48876, Net Zero Energy Military Installations: A Guide to Assessment and Planning 3–4 (Aug. 2010), *available at* http://www1.eere.energy.gov/office_eere/pdfs/48876.pdf, *archived at* http://perma.cc/Z7GE-WCHZ.

128 Sarah E. Light, *Valuing National Security: Climate Change, The Military, and Society*, 61 UCLA L. Rev. 1772, 1798 (2014).

129 *Id.* (quoting Robert D. Kaplan, *The Coming Anarchy: How Scarcity, Crime, Overpopulation, Tribalism, and Disease are Rapidly Destroying the Social Fabric of Our Planet*, 273 Atlantic Monthly 44, 52 (1994)).

130 *Id.* (citing Sanford E. Gaines, *Sustainable Development and National Security*, 30 Wm. & Mary Envtl. L. & Pol'y Rev. 321, 345 (2006)).

V. EXCEPTIONAL ENVIRONMENTAL MISSION

Although the push on domestic military installations for increased renewable energy use is not an environmental agenda for the military, the acceptance of this renewable energy mission for national security purposes (coupled with the exceptional purpose of providing national security)[131] justifies maintaining and even expanding military exceptionalism in environmental laws, particularly NEPA, to ensure these projects are deployed.

A. STATUS QUO INSUFFICIENT TO GUARANTEE THE RENEWABLE MISSION

Presently, aside from testing its chances in court, the military may only be immediately freed from NEPA requirements by seeking "alternative arrangements" from the CEQ for emergency circumstances.[132] This, however, is an unwieldy task. The military would have to package a renewable energy program, an intrinsically non-emergency project, into the remarkably narrow emergency circumstances exception.[133] In terms of precedent-setting potential, the stringent limitation of the emergency circumstances exception has its rightful place. Without it, the structure within which it exists would be damaged even in the face of a compelling non-emergency activity such as renewable energy development and deployment.[134] "Even if a nonemergency could be characterized as meeting the exception, it would damage the integrity of NEPA. Statutory sidesteps undermine the Act as a whole and open a Pandora's box where the emergency circumstances exception is extended to situations that are neither emergencies nor matters of national security."[135]

In testing the courts, as the above discussion demonstrates, the current attitude toward the military's national security mission is favorable, yet it also demonstrates that courts can be fickle.[136] Moreover, the further removed from 9/11 the nation becomes, the less likely it seems that this deference to national security interests will be weighed as heavily in balancing interests under the NEPA preliminary injunction analysis absent some renewed immediate, domestic threat.[137]

Of course, this perspective may be tempered by the fact that the military would be promulgating a renewable energy program, which is inherently favored given NEPA's

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131 Despite not already having a NEPA exception, "agency decisions dealing with the national defense and survival will, of necessity, be made with a different view toward environmental considerations and, indeed, most other considerations, than will non-defense related agency decisions" because national security is of such vital importance to the existence of the country in ways that the missions of other agencies simply are not. "[S]ome changes, even major changes, in the environment may be required for the survival of the Republic." Concerned About Trident v. Schlesinger, 400 F. Supp. 454, 484 (D. D.C. 1975) (citing Nielson v. Seaborg, 348 F. Supp. 1369, 1372 (D. Utah 1972)).

132 *See* 40 C.F.R. § 1506.11 (2015).

133 *See* C.C. Vassar, *NRDC v. Winter: Is NEPA Impeding National Security Interests?*, 24 J. LAND USE & ENVTL. L. 279, 303 (2009).

134 *Id.*

135 *Id.*

136 *See supra* Part II.B.1.

137 *See supra* Part II.B.1.

purpose. Yet, it is foreseeable that the balance of interests could still wield significant influence in creating obstacles for such a program. For instance, a court could be forced to balance the need for a certain military installation's renewable program with the public's interest in the siting of the renewable project[138] or the disconnection and resulting loss of revenue from the commercial grid,[139] among other factors. However, the ever-evolving disposition of courts toward invoking national security interests to override other interests renders this balance uncertain.

A concrete NEPA exception for the military's purposes would all but guarantee approval so long as there is no legitimate, egregious complaint relating to the project. Additionally, a real exception to NEPA for national security purposes would largely remove judicial policy-making from the NEPA analysis.[140] Currently, the NEPA preliminary injunction prongs 3 and 4[141] allow courts to make policy choices between environmental and national security efforts, inherently involving constitutional separation of powers underpinnings by limiting or even blocking the DoD from carrying out its constitutional mandate.[142]

B. The Contours of a NEPA National Security Exception for Renewable Energy

Although renewable energy projects cannot bypass NEPA by way of the emergency circumstances exception from CEQ and the courts are unreliable and time-consuming, the interest in national security justifies the creation of a NEPA exception for military renewable energy projects. Specifically, the broader, long-term national security mission — maintaining domestic installation viability against known potential vulnerabilities — validates the need for a mechanism through which to ensure that, though not an emergency priority, such a mission is not frustrated by bureaucracy. In other words, the foresight to protect against a recognized weakness should not be penalized by procedure.

Such an exception could, and should, be limited to the objective of increasing renewable energy use at domestic military installations for the purpose of furthering na-

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138 *See* Kevin Prince & Morgan Adam, *Siting and Technology Considerations: Siting Attractive Solar Power Projects on Military Installations*, *in* Renewable Energy for Military Installations: 2014 Industry Review 36, 38–39 (Am. Council on Renewable Energy ed., 2014), *available at* http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf, *archived at* http://perma.cc/D3JL-AM54 (discussing siting criteria for electricity load, environmental impacts, site access, and site selection); Harry Benson, *The Wind Energy Option for Military Facilities*, *in* Renewable Energy for Military Installations: 2014 Industry Review 40, 40 (Am. Council on Renewable Energy ed., 2014), *available at* http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf, *archived at* http://perma.cc/D3JL-AM54 (discussing the necessity of siting wind farms at the optimal locations, which may not necessarily be on the military installation).

139 *See* Prince & Adam, *supra* note 138, at 39 (indicating that "the ability to interconnect within the infrastructure of the existing utility is not a given."); Feldman, *supra* note 104, at 53 (describing possible issues with the use of microgrids beyond the military installation, such as "entangling" utility functions, possible application of separate or overlapping jurisdictions, and incorporating on-base assets into rate base); Koch, *supra* note 118, at 8–9.

140 *See* Gartland, *supra* note 23, at 68.

141 *See supra* note 25 and accompanying text.

142 *See supra* Part II.B.1.

tional security. This is a far cry from an over-broad allowance for anything that could be deemed "national security" to slip through warranted scrutiny.[143] Military preparedness, being combat-ready in an instant against an imminent threat, is a vital national security interest;[144] accordingly, preparedness against a devastating attack on our electricity infrastructure is a vital security interest and should be protected from delay or other limitations.

Moreover, an exception to NEPA for renewable energy development as a means of national security is consistent with the purposes of NEPA. NEPA's broad scope, "to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations,"[145] is in line with cultivating security through domestic renewable energy development. This statement of purposes allows sufficient flexibility to balance interests in the face of the changing needs of the country. In a post-9/11 and post-traditional warfare world, an adequate balance necessarily encompasses proactively and preemptively combating threats to the homeland. More importantly, this exception harmonizes the oft-competing need for national security while simultaneously promoting an environment-centric project.

C. THE CAVEAT

Expanding and further solidifying military exceptionalism in environmental law in this way is only justified because of the mandate to expand the military's domestic renewable energy use. It is the *requirement* that renewable energy resources be used that warrants expansion of exceptionalism. Because the military is required by this mandate to supplement or even supplant traditional energy sources with renewable energy sources, exceptionalism becomes a rational tool to inhibit the proliferation of this mandate by an entity that historically has not operated with environmental objectives as its primary mission.

By providing a mandate that necessitates renewable energy use, Congress has offered a statute that requires the military to affirmatively perform an environment-friendly activity, which in turn provides a mechanism through which the environment-friendly activity may be enforced. But this enforceable mandate, from the military perspective, is digestible because it targets a weakness in the domestic national security scheme. As such, the military can propel an environmental agenda under the banner of national security.

Because of this dual purpose, the renewable energy mandate primes itself well for the seemingly inevitable expansion of military exceptionalism. On its face, this military objective is a well-rounded candidate for exceptionalism because, in the history of the military-environmental nexus, interests of each pole seemingly align. Ironically, however, expanding the military's exceptionalism for national security purposes likely would pose another threat to national security.

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143 Such an exception would be in contrast to the ESA. As originally enacted, the ESA was significantly overly broad, but relatively immediate amendments (including the national security exception) mitigated concerns that military activities would automatically trump environmental concerns. *See* Vassar, *supra* note 133, at 304–05.

144 *Id.*

145 42 U.S.C. § 4331(a) (2014).

VI. The Paradox: Military Exceptionalism Threatens National Security

Increased use of renewable energy through independent microgrids at domestic installations decreases the implications of a cyber attack on the commercial electric grid for military preparedness, a crucial mission for domestic security. Moreover, a NEPA exception for such projects would likely compel the military to pursue even more renewable energy projects in an exercise of its newly expanded power, presumably to further this mission, which is in itself a commendable mission.[146]

However, the marriage of a renewable energy mandate and the potential for expanded exceptionalism has the unintended consequence of jeopardizing national security, the very thing both would seek to ensure. This is because the mandate to increase renewable energy use throughout the military operates on a faulty assumption: that a requirement to increase renewable energy use would wholly improve national security and military preparedness, at least more so than the current energy supply or alternative energy supply schemes. This can be roughly divided into two considerations. First, the mandate that warranted an exception was unnecessary and could unduly pressure the military to engage in renewable energy projects. Second, the energy source required by the mandate, and further encouraged by an exception, is not currently the most secure tool that the military has in its arsenal to combat the threat to domestic security on military installations.

A. An Unnecessary Mandate: Energy Innovation has been, and Continues to be, a Military Mission

Following the *More Fight — Less Fuel* report, all service branches immediately initiated means by which to address the national security threat to the commercial electric grid.[147] In fact, by 2012 (the year after the mandate), the military collectively produced or procured renewable energy at a 13% higher rate than in 2011.[148] Put another way, the number of renewable energy projects on military installations increased from 454 in 2010 to 700 in 2012.[149] Such pragmatic changes in the reliance on renewable energy indicate of a cultural shift toward a new, long-term trend of reaching military preparedness goals through renewable energy, which began even prior to the Congressional mandate.

1. The Navy's Dedication to Innovation

The Navy's energy innovation offers a prime illustration of renewable energy reliance without some overarching requirement that it be incorporated.[150] It has long been

146 The mandate has already resulted in an increase to the use of renewable energy at military installations across the country, the Fort Bliss plan being just one example. *See supra* Parts IV, V.

147 Pew Charitable Trust, *supra* note 88, at 1.

148 *Id.* at 25.

149 *Id.* at 26 (representing a 54% increase overall). While solar is intended to continue to dominate the renewable power, biomass is projected to contribute significantly more power in the future than it currently does. *Id.* at 28.

150 According to the Pew research, the Navy has, at least in recent years, produced and procured renewable energy at an almost two-fold higher rate than that of any other individual

recognized that "[e]nergy innovation has made the Navy more capable and better able to defend the United States around the globe."[151] In fact, decades before the renewable energy mandate, the Navy was at the forefront of energy development.[152] The U.S. Navy has consistently been a leader, arguably globally, in developing alternative fuel sources to power a national fleet, most notably using nuclear energy.[153] In the U.S., naval power was the first notable use of nuclear energy as a power source for electricity.[154] The Navy has used nuclear power in its fleet of submarines and aircraft carriers essentially emission-free since the mid-1900s.[155] Naturally, the impetus for such development and the continual use of nuclear energy was powered by the need to maximize the endurance potential of the fleet and, if anything, only secondarily to minimize the Navy's environmental footprint.[156]

Curtailed by the nuclear events at Three Mile Island and Chernobyl, the country's support of the relatively clean nuclear energy as the predominate power source waned as did the Navy's hopes for an all-nuclear fleet that could continuously operate for twenty years without stopping to refuel.[157] Despite the failed plans for an all-nuclear fleet, nuclear energy is still crucial for meeting the Navy's operational energy needs.[158] At the time of this publication, the Navy operates ten aircraft carriers (with two additional carriers currently under construction) and over seventy submarines powered by nuclear energy.[159] These ships and submarines, the largest of their kind in the world, are designed to have a fifty-year lifespan, requiring only one mid-life refueling.[160]

However, being the ever-aggressive force that it is, the Navy has not merely left its mark on nuclear energy development as a fuel source. Even before the renewable energy mandate, recognizing the need to operate more efficiently and effectively at a lower cost, the Navy initiated plans for the Great Green Fleet in 2009.[161] Named in honor of President Theodore Roosevelt's Great White Fleet, the Great Green Fleet, to be launched in 2016, will be the culmination of five aggressive energy goals aimed at reducing the

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service branch or the DoD. PEW CHARITABLE TRUST, *supra* note 88, at 25. This fact aside, all of the branches and the DoD showed a remarkable increase in their on-site generation of renewable energy, all of which have at least doubled many of their previous figures. *Id.* at 25.

151 Velandy, *supra* note 103, at 686.

152 *Id.* at 678–79, 683 (discussing how it was the U.S. Navy that initially moved the nation from wind power to coal in the 1850s and from coal to nuclear following World War II. The U.S. Navy launched the first nuclear-powered ship in 1954, the *USS Nautilus*.).

153 *Id.*

154 Neal H. Lewis, *Interpreting the Oracle: Licensing Modifications, Economics, Safety, Politics, and the Future of Nuclear Power in the United States*, 16 ALB. L.J. SCI. & TECH. 27, 54 (2006).

155 Spahn, *supra* note 66, at 83.

156 *Id.* at 84.

157 *Id.*

158 *See id.*

159 *Carriers: The List*, U.S. DEP'T OF THE NAVY, http://www.navy.mil/navydata/ships/carriers/cv-list.asp (last visited Mar. 9, 2015), *archived at* http://perma.cc/9JP5-WVQD.

160 Velandy, *supra* note 103, at 677.

161 *Great Green Fleet*, U.S. DEP'T OF THE NAVY, http://greenfleet.dodlive.mil/files/2014/07/20140910_Great-Green-Fleet-Factsheet.pdf (last visited Mar. 9, 2015), *archived at* http://perma.cc/T6MK-2QZU.

Navy's energy consumption, reducing reliance on foreign oil, and increasing alternative energy use.[162] Beyond the continued reliance on nuclear power, the fleet is to use other alternative energy sources and energy conservation measures.[163] Reflective of the priority the Navy has placed on energy innovation for purposes of a more agile fleet, the Great Green Fleet is anticipated to "usher[ ] in the new normal, where our Navy values energy as a strategic resources, maximizing energy efficiencies and cultivating multiple sources of alternative energy."[164]

Perhaps more illustrative of the Navy's commitment to renewable energy development is the Naval Air Weapons Station China Lake in California's Mojave Desert, which is powered by a 170-MW, geothermal energy plant that has been in operation since the 1980s.[165] Remarkably, the Navy is not just involved in "pure technological innovation," but is also a maverick in finding and creating other means by which to encourage innovation.[166] The Navy is also pursuing a joint venture with the Department of Energy and the Department of Agriculture through the Farm-to-Fleet Program, which is a partnership between the federal government and the private sector to develop advanced biofuels and make them competitive on the market, which would, in turn, benefit the military by not requiring it to pay a premium for biofuel.[167]

Although the geothermal energy produced from China Lake is attributed to the Navy for the renewable energy mandate, these other long-lasting projects are in no way accounted for within the new scheme.[168] Still, if all planned projects are actually implemented, the military as a whole is on track to meet the 3 GW of renewable energy production by the year 2025 in accordance with the mandate, in part due to the expansion of renewable energy projects throughout installations operated by other military service branches.[169]

2. Rapid Expansion of Renewable Energy Projects in other Military Branches

As the mandate came into place, it was clear that other service branches were transitioning to an increased reliance on renewable energy resources, at least on domestic installations. As a part of the increase in projects discussed at the beginning of this

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162 *Id.*

163 *Id.* For a detailed discussion of the other innovative technologies that the Great Green Fleet will incorporate, including biomass and microbial fuel cells, *see* Enabling the Great Green Fleet, Office of Naval Research 8 ONR Innovation 1 (2012), *available at* http://greenfleet.dodlive.mil/files/2012/06/ONR-Innovation-Newsletter_Spring2012_Vol.8.pdf, *archived at* http://perma.cc/8S4Z-F6NR.

164 *Great Green Fleet*, *supra* note 161.

165 *Id.*

166 Velandy, *supra* note 103, at 685.

167 *Id.* at 685–86 (discussing how the departments invested a combined $510 million into three select private partners who will develop biofuels by 2016 that are compatible with already-existing military technology at a cost of around $4 per gallon, which is competitively priced with conventional fuels. The ultimate goals are to encourage this development, make the market competitive, and encourage other industries to begin incorporating the Navy-validated advanced biofuels.).

168 *See* Pew Charitable Trusts, *supra* note 88, at 25.

169 *Id.* at 26.

section, new wind, solar, geothermal, and biomass projects were planned and some were implemented throughout the country.[170]

Although some of these projects are independent, they are often coupled with and integrated into the military-wide Net Zero Initiative. Introduced in 2010 and implemented in 2011, the Net Zero Initiative is "the cornerstone of the Army's strategy for sustainability and energy security."[171] The Air Force followed suit in 2012 and established its own Net Zero Initiative.[172] The Net Zero Initiative is an all-of-the-above approach to ensuring better energy practices at military installations through energy conservation, facility upgrades, and renewable energy integration.[173] A Net Zero approach to energy means that the "military installation produces as much energy on-site from renewable energy generation or through the on-site use of renewable fuels, as it consumes in its buildings, facilities, and fleet vehicles."[174] The Army initially deployed six pilot net-zero energy installations and two pilot integrated net-zero installations (achieving net-zero in energy, waste, and water), and has since adopted a branch-wide Net Zero policy.[175]

Fort Bliss, Texas, one of two integrated net-zero locations, has begun installing a 50-MW dry-cooled concentrating solar power array that complements the 1.4 MW solar array already in use at the base.[176] Similarly, the White Sands Missile Range in New

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170 Scholtes, *supra* note 106, at 81–88.

171 SIEMENS, WHITE SANDS MISSILE RANGE – U.S. ARMY: THE ARMY'S LARGEST RENEWABLE ENERGY PROJECT ACHIEVES SUSTAINABILITY OBJECTIVES WHILE LEAVING CAPITAL FUNDS INTACT 1 (2013), *available at* http://w3.usa.siemens.com/buildingtechnologies/us/en/federal/Documents/white-sands-missile-range-partners-with-siemens-to-implement-renewable-energy-solutions.pdf, *archived at* http://perma.cc/6K22-ZWRW; NAT'L RENEWABLE ENERGY LAB., ARMY NET ZERO: ENERGY ROADMAP AND PROGRAM SUMMARY — FISCAL YEAR 2013 3 (2014), *available at* http://www.asaie.army.mil/Public/ES/netzero/docs/FY13%20Army%20Net%20Zero%20and%20Energy%20Program%20Summary.pdf, *archived at* http://perma.cc/27V5-MSAZ.

172 Memorandum from the Dep't of the Air Force 1–2 (June 23, 2012), *available at* http://www.afcec.af.mil/shared/media/document/AFD-121204-024.pdf, *archived at* http://perma.cc/APA3-EMM8; U.S. DEP'T OF THE AIR FORCE, U.S. AIR FORCE ENERGY STRATEGIC PLAN 18–19 (2013), *available at* http://www.safie.hq.af.mil/shared/media/document/AFD-130325-132.pdf, *archived at* http://perma.cc/P2J3-GHL3.

173 Scholtes, *supra* note 106, at 76.

174 BOOTH ET AL., *supra* note 127, at 5 (describing how a connection from the military to the local grid "banks" energy if it produces a surplus of energy and that the energy may be in the form of electricity, steam, or direct use of fuel).

175 ENVTL. & ENERGY STUDY INST., FACT SHEET: DOD'S ENERGY EFFICIENCY AND RENEWABLE ENERGY INITIATIVES 4 (2011), *available at* http://www.eesi.org/files/dod_eere_factsheet_072711.pdf, *archived at* http://perma.cc/3F2M-67HL (detailing the six net-zero installations at Fort Detrick, MD, Fort Hunter Liggett, CA, Parks Reserve Forces Training Area, CA, Sierra Army Depot, CA, and West Point, NY, as well as the integrated net-zero installations at Fort Bliss, Texas and Fort Carson, CO); SPR 2013, *supra* note 65, at 26.

176 DEP'T OF THE ARMY, RECORD OF DECISION: IMPLEMENTATION OF ENERGY, WATER, AND SOLID WASTE SUSTAINABILITY INITIATIVES, FORT BLISS, TEXAS AND NEW MEXICO 4 (2014), *available at* https://www.bliss.army.mil/DPW/Environmental/documents/Fort%20Bliss%20N-Z%20EIS_Signed_ROD_20JUN2014.pdf, *archived at* https://perma.cc/9LYL-PV4R [hereinafter FT. BLISS ROD]; Donna Miles, AM. FORCES PRESS SERV. *Fort Bliss to*

Mexico, although not a net-zero facility, services the Army, Navy, Air Force, NASA, and DoD and launched in 2012 a ground-mounded solar array that tracks the movement of the sun to produce 4.1 MW per year, supplying 10% of the power consumed at the installation.[177]

To excerpt the hundreds of renewable energy projects that have been implemented, the Army's solar projects alone are notable. These projects include: a 2 MW, 3,200 MWh per year solar array completed in 2008, sited on land overlying an enclosed landfill that would otherwise be unusable, at Fort Carson, Colorado, that provides 2.3% of the installation's energy; in 2009, a solar array at the New Jersey National Guard Training Facility Headquarters that will generate 250,000 kWh of energy per year that is expected to supply 80% of the facility's energy needs; and a net-zero photovoltaic project, completed in 2012, at the Hatch Stage Field on Fort Rucker, Alabama that provides approximately 73,000 kWh per year and is also connected to the local electric grid.[178] Additionally, earlier this year, the Army broke ground on its largest solar installation to date at Fort Huachuca, Arizona, which will provide about 25% of the installation's energy requirements by producing an estimated 18 MW of clean power across the 155-acre array.[179]

It is possible that the 2012 mandate has sustained the military's efforts to increase renewable energy use for military purposes. However, given the timing of the mandate in the broader context of military energy use, is seems more likely that the mandate was merely a codification of a larger trend within the military ranks to progressively supplant a portion of the military's reliance on conventional energy resources with renewable energy sources. In other words, the mandate was unnecessary because a transition to an increased use of renewable energy was already underway. Furthermore, with a mandate in place, it is foreseeable that the military is encouraged to relatively quickly implement new and as of yet unplanned renewable energy projects. Though this is a noble effort, pressure to comply with the deadline to reach the mandated renewable goal, the APA enforcement potential that the mandate creates, and the exceptions that allows these projects to be pushed through the administrative process coalesce into a potentially devastating national security threat: these renewable energy resources are still insecure.

Launch Military's Largest Renewable Energy Project, DoD News (Apr. 5, 2013), http://www.defense.gov/News/NewsArticle.aspx?ID=119715 (last visited Mar. 9, 2015), *archived at* http://perma.cc/4EQE-2UHC.

177 Press Release, WSMR Public Affairs, *White Sands Home to Army's Largest Solar Power System*, (Jan. 17, 2013), *available at* http://www.army.mil/article/94412/White_Sands_Missile_Range_Home_to_U_S__Army_s_Largest_Solar_Power_System/, *archived at* http://perma.cc/PG4Q-CSYW.

178 Scholtes, *supra* note 106, at 82–83.

179 Press Release, Lisa Ferdinando, Army News Serv., *Army Breaks Ground for Largest Solar Array on DOD Post*, Army News Service (Apr. 25, 2014), *available at* http://www.army.mil/article/124774/Army_breaks_ground_for_largest_solar_array_on_DOD_post/, *archived at* http://perma.cc/7BQ5-JKPJ.

B. RENEWABLES SUPPLANT ONE NATIONAL SECURITY THREAT FOR ANOTHER

The Navy's experience in energy development has made it abundantly clear that the use of renewable energy as a means of providing national security is a concept that has been recognized by our nation's military for decades. Yet, it was not until the *More Fight — Less Fuels* report detailed the critical threat to the domestic power supply that the other branches seemed to be entirely "all aboard" with the Navy's long-standing recognition of the role that renewable energy resources could play in powering the military. But this phenomenon is not a novel occurrence:

> National security as a goal has the ability to stimulate innovation through specific demand that broader and more abstract concerns over the environment or energy independence may not create. There is an innovative pull . . . . We need to fight a war — the question is how do we do that. This is more likely to stimulate innovation than in a vacuum or for the abstract goal of energy efficiency — we have a specific problem to solve.[180]

The response to the specific problem, either aided or abetted by the mandate, has relied seemingly exclusively on renewable energy sources. Renewable energy sources are well-poised to provide an energy source that can both enable domestic installations to disconnect from the commercial electric grid and provide a source of energy in keeping with the on-site microgrid concept. Yet, renewable energy resources are inherently limited, which in turn limits their ability to wholly address the needs of military preparedness and national security threats, and actually poses a new security threat.

1. INTERMITTENCY AND STORAGE CAPACITY

One of the oft-cited reasons that renewables do not dominate the energy market is that wind and solar energy, the two primary forms of renewable energy currently being used at military installations, are subject to severe intermittency limitations.[181] The sun does not always shine and the wind does not always blow. Consequently, some other readily dispatchable energy source is required to supplement these sources during those intermittent times. Such intermittency is more difficult to incorporate into the microgrid scheme than other dispatchable energy generation (biomass, for example).[182]

An offshoot of the intermittency limitation, another well-recognized limitation of renewable energy is that the electric grid does not store energy. This is troublesome

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180 Light, *supra* note 19, at 895 (internal quotations omitted). *See also* Arthur Rizer, *The National Security Threat of Energy Dependence: A Call for a Nuclear Renaissance*, 2 HARV. NAT'L SEC. J 193, 212–13 (2011) (discussing how the Navy, for example, recognized the strong need for an agile fleet that could operate for long periods of time and project power anywhere in the world without reliance on foreign fuel sources, which "American ingenuity answered with nuclear naval propulsion as a means to that end." The initial technology, though not perfect by any means, has been revised and improved continuously; "the only way to mitigate the disadvantages of different technologies is through trial and error . . . .").

181 Jenny Nelson, Robert Gross, & Duncan Clark, *Are Solar, Wind and Marine Power too Intermittent to be Useful?*, THE GUARDIAN (May 29, 2012), http://www.theguardian.com/environment/2012/may/29/intermittant-solar-wind-energy, *archived at* http://perma.cc/EA2D-TQLN.

182 BOOTH ET AL., *supra* note 127, at 28.

because, although we have infinite access to wind and solar power, the excess power generated must be almost immediately consumed because there is currently no way to economically store it. Nevertheless, as innovative battery technology develops, wind and solar energy may become more viable on a large scale.[183] Such a development is "critically important" for the sustained success and increased reliance on renewable energy resources.[184] One commentator notes that a "true leap in battery technology would be a rechargeable cell that does not lose capacity, that could provide grid-level storage that can dependably store hours of energy from solar and wind power at a very low cost."[185] However, until that occurs, some supplemental energy source is needed to ensure electric reliability, which may or may not be achievable through other renewables.

While these concerns are legitimate, in the context of a military-wide increase to just a 25% reliance on renewable energy resources, these limitations are less constricting to the overall scheme. As the Fort Bliss program demonstrates, traditional, reliable energy resources, such as small natural gas-powered or biomass-powered sources, can supplement a renewable energy source. It is critical to recognize that "renewable energy is not about just the isolated wind turbine or solar panel, but rather an entire network of systems. It is the sum of the parts that makes the new strategy and projects so exciting, clean, reliable, and secure."[186] Be that as it may, even in full compliance with the 25% mandate and even considering the system as a whole, the military will still have to rely on the commercial electric grid.

2. Siting and Land Use

Siting and land use restrictions or limitations likewise create conflicts for establishing renewable energy sources at domestic installations. This issue has risen especially in the context of wind power. Aside from the use of air space, wind turbine technology is known to interfere with radars, thus rendering it incompatible to site wind turbines near runways.[187] This may mean that turbines are located off-site or far from the end users. Likewise, without an on-site supply of biomass, a biomass-powered system may require large quantities of biomass to be trucked onto the base, which would concurrently render the system inefficient and not truly independent.[188]

At a more general level, however, siting is difficult because installations are already developed, and they may or may not necessarily be located in places that are replete with renewable energy options. Even still, dedicating a portion of the installation to energy production may interfere with training exercises. Of course, this could be remedied by nearby off-site facilities, but aside from transmission vulnerabilities and siting issues, the entire purpose of the microgrid system and islanding the grid is to ensure that the military has immediate control over its electrical supply on-site.

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183 *See* Velandy, *supra* note 103, at 722.

184 *Id.*

185 *Id.*

186 Scholtes, *supra* note 106, at 102.

187 Booth et al., *supra* note 127, at 4. For a detailed case study and description of the regulatory obstacles in combatting the radar interference issue with wind turbines, *see* Felix A. Losco & Thomas F. Collick, *When Wind, Wind Turbines, and Radar Mix — A Case Study*, 68 A.F. L. Rev. 235 (2012).

188 *See* Booth et al., *supra* note 127, at 4.

3. Open Access

Aside from the logistical concerns that have been debated in the renewable energy arena generally, the discussion of the adoption of renewable energy use at military installations is largely silent regarding the vulnerability to attack that large renewable arrays could pose. The concern with the commercial electric grid is not just the threat of a cyber attack, but also of physical attack on our aging commercial infrastructure. Although renewable energy arrays located on a military based would presumably be more secure from physical attack given the nature of military installations, the possibility of a physical attack is still very real.

Take, for instance, the 155-acre solar panel array planned for Fort Huachuca, Arizona.[189] That is 155 acres that requires constant monitoring and security to protect against a physical strike or demolition that could cripple the operating capacity of the military installation. Thus, although the microgrids could allow an installation to disentangle itself from the commercial grid, the open access to physical attack renders the system just as vulnerable.

4. Peacetime Priority

The impetus to developing renewable energy resources for the military's domestic security has largely occurred within the context of the drawdown following the wars in Iraq and Afghanistan. This cannot be lightly disregarded. Given the uncertainty in the global security outlook, it is questionable whether such aggressive motivations to develop more sophisticated technology and to make the transition to renewable energy can and will be maintained in the event of a re-deployment of the military to primarily a combat role. In this regard, aggressive attention to a renewable energy mandate may prove to be merely a peacetime priority.

Of course, the technology proposed for domestic installations can address security issues abroad, but the question is whether that alone is sufficient to perpetuate the progress that has been made. "[R]eliance on the synergy between the military's interests and energy conservation may provide political cover for those who otherwise might not support investment in clean energy technology . . . ."[190] Facing a threat abroad, it is just as uncertain whether this thinly-veiled advocacy for clean energy would remain in place or succumb to the military's primary role as protector against imminent threat.

C. The Paradox

Herein lies the paradox: military non-exceptionalism in this context is better able to serve national security and military preparedness. Ironically, requiring the military to deploy vast amounts of renewable energy technology and lessening the procedural safeguards associated with deploying that technology in the name of national security, although addressing some security concerns, does not get at the two threats it seeks to remedy. First, the inherent limitations of renewable energy preclude pure independence from the commercial electric grid. Second, the inherent nature of renewable energy creates other security vulnerabilities. However, these limitations do not necessarily preclude the increased use of renewables at installations.

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189 *See supra* note 179 and accompanying text.

190 Light, *supra* note 19, at 904.

VII. Recommendations

The immediacy of the threat demands immediate attention. But rather than this frenzied rush to comply with a mandate for *renewable* and secure energy, a better approach is to seek truly *independent* and permanently secure energy for domestic installations. This approach requires a creative mix of patience, innovation, and flexibility toward the continuous mission of long-term energy independence and security.

First, despite the inability of renewable energy sources to fully achieve independence from the commercial grid and wholly address security vulnerabilities, renewable energy does still have a place in this broader mission for energy independence and security. However, the role of renewable energy should be viewed not as the solution, but rather as a transition to the solution. To effectuate this role, procedural "fast tracks," rather than full-fledged exceptions, are well suited to serve the purpose. Second, nuclear energy is notably absent from discussion of energy development for the military. Public perception aside, nuclear power has proven to be an asset for the military's mission, and the development of modular nuclear reactors promises a long-term, independent, and secure energy alternative tailored for military installations.

A. Procedural: Stepping Stone to Energy Independence and Energy Security

Until a truly independent and secure energy source is implemented, renewable energy can serve as the interim answer to reducing reliance on the commercial electric grid. Despite the fact that sweeping exceptionalism would be detrimental to national security and military preparedness, an intermediate, yet accelerated procedural process is useful to address the immediate need to reduce this reliance. What is more, such quasi-exceptions are implemented through NEPA.

NEPA provides a procedural mechanism through which project developers can avoid some procedural obstacles while still considering the environmental implications of the project. A programmatic environmental assessment (EA) and EIS are ways to avoid considering site-specific factors for actions that are cumulative, connected, or similar to other projects; instead, these practices merely evaluate the broader environmental implications of a particular type of project.[191] The intent is to avoid conducting a completely individualized analysis of renewable energy projects while simultaneously ensuring a thorough assessment of environmental impacts.[192]

Using this procedural mechanism in July of 2012, the Army proposed a programmatic EA for Net Zero programs at military installations,[193] and produced a "Finding of No Significant Impact" later that year.[194] The purpose of the programmatic EA was to "enhance resource efficiency," reflected in part by the paradigm shift to produce more

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191 *See* Sabrina C.C. Fedel, *Causes of Action Against the Federal Government Under the National Environmental Policy act of 1969 (NEPA)*, 12 Causes of Action 2d 321 (1999).

192 *See id.*

193 Notice of Availability, Draft Finding of No Significant Impact and Programmatic Environmental Assessment for the Implementation of the Net Zero Program at Army Installations, 77 Fed. Reg. 48,131-02, 48,131 (Aug. 13, 2012) [hereinafter Draft FONSI and PEA].

194 *Id.*

renewable energy than it uses on-site.[195] Finding no significant environmental impacts for strategically implementing Net Zero projects, the Army established the programmatic EA.[196]

Likewise, the BLM and DoE have jointly secured a programmatic EIS for solar projects in six western states.[197] Recognizing the massive potential for utility-scale solar energy development in Arizona, California, Colorado, Nevada, New Mexico, and Utah, the agencies evaluated the efficacy of such projects and cleared a procedural hurdle to establishing these projects on federal lands.[198] Similarly, the BLM prepared a programmatic EIS for wind projects and a joint programmatic EIS with the U.S. Forest Service for geothermal projects.[199] Because the BLM reserves massive swaths of land for military use, these procedural maneuvers coupled together can make for easier deployment of renewable energy projects while still maintaining environmental integrity.[200]

This type of procedural shortcut provides the expediency necessary to progress toward a more sustainable and secure energy source for the military while still providing safeguards to consider environmental impacts in ways that a full-scale exception to NEPA cannot. Simultaneously, this method allows the military to consider only those projects in locations in which it will be the most beneficial, most practical, and most secure without as much of the extensive and time-consuming bureaucracy normally involved in having these projects planned, approved, and implemented. As such, these programmatic shortcuts should be expanded to ensure rapid development to meet the short-term goal of reducing reliance on the commercial electric grid. This may be done by broadening the scope of current programmatic EISs and EAs into other states rich with renewable resources and by creating new programmatic EISs and EAs for other forms of renewable energy.

This structured flexibility is precisely what the military needs as a transition to a truly independent and secure energy supply. Despite the limitations of renewable energy, renewable energy can help the military make great strides toward independence from the commercial electric grid, which arguably is the immediate concern. This is evident from

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195 *Id.*

196 *See id.*

197 BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS) FOR SOLAR ENERGY DEVELOPMENT IN SIX SOUTHWESTERN STATES (2012), *available at* http://energy.gov/sites/prod/files/EIS-0403-FEIS-Volume1-2012_0.pdf.; *archived at* http://perma.cc/7F9N-SPL2.

198 *See id.* at ES-1.

199 BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, FES 05-11, FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT ON WIND ENERGY DEVELOPMENT ON BLM-ADMINISTERED LANDS IN THE WESTERN UNITED STATES (2005), *available at* http://windeis.anl.gov/documents/fpeis/index.cfm, *archived at* http://perma.cc/YP5E-27ZJ; BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, FES 08-44, FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT FOR GEOTHERMAL LEASING IN THE WESTERN UNITED STATES (2008), *available at* http://www.nature.nps.gov/GEOLOGY/energy/Volume_I_FINAL.pdf[1].pdf.

200 The Federal Power Act governs the siting of renewable energy and provides to state regulators full authority to site electricity generators and transmission facilities. Amy L. Stein, *Renewable Energy Through Agency Action*, 84 U. COLO. L. REV. 651, 699 (2013). As such, the federal government only has siting authority over projects on its own land, which would include military installations and other non-military Bureau of Land Management land. *Id.*

the Fort Bliss program. When one renewable source plagued by limitations is supplemented by another renewable source with a different set of limitations or a dedicated traditional energy source, islanding the installation's electric grid through microgrid technology can get the military closer to true secure independence.

B. Substantive: Battle-Tested Technology — Modular Nuclear Reactors

The Navy's reliance on nuclear energy to power a large portion of its fleet, despite the poor public perception of nuclear energy, is a beacon of innovation that could serve all military branches. The selling point of the Navy's model is that it can operate effectively over the long term even though it is not near a secure, established supply line, which reduces the need to remain close to supply points.[201] More importantly, within the 500+ nuclear reactors over the 125+ million miles that the Navy's fleet has sailed since it first launched a nuclear vessel, the fleet has never experienced a nuclear accident.[202] Adopting a modified version of this technology at domestic military installations could largely combat the inherent limitations present with current renewable energy projects.

Recently, similar to the military's shift toward renewable energy development, public perception of nuclear energy has likewise shifted.[203] This shift has contributed to renewed efforts to enhance the nation's nuclear use and capacity.[204] Perhaps more importantly, Congress instructed the DoD to study the potential feasibility of increasing military nuclear energy use.[205] And in 2011, funding was approved for the DoE's small reactor program while the Nuclear Regulatory Commission (NRC) was meeting with various interests (including modular reactor vendors) to develop a licensing and regulation program for small reactors.[206] The administrative interconnections are already in place to continue the development and eventual deployment of modular nuclear reactors with the DoD/DoE MOU.[207] The MOU specifically envisions coordination to "[m]aximize DOD access to DOE technical expertise and assistance through cooperation in the deployment and pilot testing of emerging energy technologies. Technology areas

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201 Spahn, *supra* note 66, at 88.

202 *Id.* at 84; Andres & Breetz, *supra* note 71, at 7.

203 Marcus King, LaVar Huntzinger, & Thoi Nguyen, Feasibility of Nuclear Power on U.S. Military Installations 11 (2011) *available at* http://www.cna.org/sites/default/files/research/Nuclear%20Power%20on%20Military%20Installations%20D0023932%20A5.pdf, *archived at* http://perma.cc/J7QJ-F8G3 (indicating that a 2010 survey demonstrated that public acceptance of nuclear energy had increased from 49 percent in 1983 to 74 percent in 2010, and the number of people who "strongly favor" the use of nuclear energy now outnumber those who "strongly oppose" it).

204 *See id.*

205 *Id.* at 12 (indicating that in National Defense Authorization Act for fiscal year 2010, Congress mandated the DoD to study the increased use of nuclear energy).

206 Policy Issue Information from R.W. Borchardt, Exec. Dir. for Operations, U.S. Nuclear Regulatory Comm'n to the Comm'rs of the U.S. Nuclear Regulatory Comm'n, Potential Policy, Licensing, and Key Technical Issues for Small Modular Nuclear Reactor Designs, SECY–10–0034 1 (Mar. 28, 2010), *available at* http://pbadupws.nrc.gov/docs/ML0932/ML093290268.pdf, *archived at* http://perma.cc/3V2B-DUBG.

207 *See generally* DoE MOU, *supra* note 111, at 1–8.

may include . . . small modular reactor nuclear energy . . . ."[208] The MOU also encourages coordination on all things nuclear-energy related (except naval propulsion systems), including regulatory specifications and integration of nuclear technology into existing systems.[209]

Within this context, the time is ripe for an on-land deployment of the Navy's nuclear reactor technology. Admittedly, the reactors currently used by the Navy depend on the ocean for cooling, which renders them "impractical" for use on land without an overhaul in the reactor design.[210] Yet, this should not be a disincentive. Technological innovation, as always, is not only possible, but accelerated when dedicated to a military-based purpose. In fact, land-based, self-contained, modular nuclear reactors have already been developed and are currently being studied with various components, including primary coolants.[211] More importantly, this type of power supply has already been deployed at U.S. military facilities.[212] In the mid-1900s, challenged by the access to supply fuel, the U.S. military used portable nuclear reactors to provide electricity for remote military installations in Virginia, Wyoming, Greenland, and Antarctica, but were decommissioned as the public perception of nuclear power faltered.[213]

Small modular reactors are characterized by: "(1) an electrical generating capacity of less than 300 MWe, (2) a primary system that is entirely or substantially fabricated within a factory, and (3) a primary system that can be transported by truck or rail to the

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208 *Id.* at 2.

209 *Id.* at 2–3.

210 Spahn, *supra* note 66, at 99–100.

211 Andres & Breetz, *supra* note 71, at 4 (discussing the variations in design, including "electrical output (10-335 MWe), coolants (water, sodium, lead, molten salt), refueling times (2–30 years) and procedures (returning the entire module to the factory, changing out the cassette, recharging the in-situ pebble bed), construction types (factory-built versus location-built), site footprints, portability, modularity, staffing requirements, and technological readiness."); King et al., *supra* note 203, at 6 (indicating that there is a range of readiness of the various types of modular reactors, with water-cooled reactors being the most mature design, followed by gas (carbon dioxide and helium) as the primary coolant, liquid metal (sodium, lead and lead-bismuth) as the primary coolant, and finally reactors cooled by molten salt). *See* Spahn, *supra* note 66, at 100; Matthew L. Wald, *Atomic Goal: 800 Years of Power from Waste*, N.Y. TIMES (Sept. 24, 2013), http://www.nytimes.com/2013/09/25/business/energy-environment/atomic-goal-800-years-of-power-from-waste.html?pagewanted=all&_r=0, *archived at* http://perma.cc/6JYG-CMB7 (indicating that, although it would not be commercially available for about fifteen years, Bill Gates has already funded a start-up, TerraPower, to develop a land-based reactor that operates largely on nuclear waste to power small communities, which would transition well onto domestic military installations and reduce the security concerns surrounding nuclear waste generation and nuclear weapon proliferation).

212 Robert A. Pfeffer & William A. Macon, Jr., *Nuclear Power: An Option for the Army's Future*, ARMY LOGISTICIAN, Sept.–Oct. 2001, at 6, *available at* http://www.almc.army.mil/alog/issues/SepOct01/MS684.htm, *archived at* https://perma.cc/8RBF-UHX2?type=source; King et al., *supra* note 203, at 20 (describing how the U.S. Army Corps of Engineers operated a nuclear program from 1954–1979).

213 Pfeffer & Macon, *supra* note 212, at 6.

plant site."[214] This design is advantageous because, unlike the major reactors of the modern era that power portions of the commercial grid, modular reactors provide flexibility. The recent rapid development of modular nuclear reactor technology has demonstrated a broad use of the concept as a generator of baseload electricity, seawater desalination, and hydrogen fuel production.[215] Comparatively speaking, modular reactors have lower capital costs than typical reactors, are more easily sited to fit the security needs of an installation, can be customized for size consistent with the needs of the installation, require fewer components, and have flexible end-use applications.[216]

The NRC has indicated that modular nuclear reactors of this sort are safer than the larger reactors being operated in the U.S., which already boast excellent safety records.[217] Specifically, modular reactors have a smaller reactor core, resulting in less radiation.[218] This type of modular reactor is also better suited to incorporate "passive safety features — those that do not require human or electronic actions to function properly."[219] One such feature is the ability to remove decay heat faster than the traditional megareactors.[220] Another is the elimination of the coolant pipes, the component most susceptible to infrastructure accidents.[221] But even without these safeguards, "[t]he rate of occurrence of severe accidents with non-nuclear sources of energy are orders of magnitude higher than the projected rate of occurrence of events of similar severe consequence associated with currently operating nuclear power plants."[222]

As for security and independence, the reactors have relatively long refueling intervals, ranging from four to thirty years, rendering them more secure than the current system or a system relying primarily on renewables.[223] Hailing this feature as a key against anti-proliferation, many designs incorporate the use of low-enriched or spent fuel instead of the highly-enriched fuel common to most nuclear power plants.[224] First, a

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214 King et al., *supra* note 203, at 4. For a detailed description of the top three leading small modular nuclear reactor designs, the Babcock and Wilcox mPower reactor, the Westinghouse Small Modular Reactor, and the NuScale Power Inc. NuScale modular reactor, all of which include the pressurized water reactor design and use passive safety features, *see* Michael E. Stern & Margaret M. Stern, *Does Nuclear Power Have a Future?*, 32 UTAH ENVTL. L. REV. 431, 454–58 (2012).

215 Andres & Breetz, *supra* note 71, at 5.

216 King et al., *supra* note 203, at 4; Nick Cunningham, *Small Modular Reactors: A Possible Path Forward for Nuclear Power*, AM. SEC. PROJECT 4 (2012), *available at* http://www.uxc.com/smr/Library%5CUS%20National%20Programs/2012%20-%20SMRs-A%20Possible%20Path%20Forward%20for%20Nuclear%20Power.pdf, *archived at* http://perma.cc/SRN9-YKG2.

217 King et al., *supra* note 203, at 14–15.

218 Cunningham, *supra* note 216, at 4.

219 *Id.* (including cooling systems that rely on gravity rather than access to power, natural convection systems, and passive heat removal).

220 Andres & Breetz, *supra* note 71, at 5.

221 Cunningham, *supra* note 216, at 4 (describing how instead, "the primary reactor core, the steam generator, and the pressurizer are incorporated into a single common pressure vessel, [which] is only possible in a small design.").

222 Stern & Stern, *supra* note 214, at 458.

223 King et al., *supra* note 203, at 26; Andres & Breetz, *supra* note 71, at 4.

224 Andres & Breetz, *supra* note 71, at 5.

prolonged power outage would have minimal impact on a modular nuclear system because it could continue to operate through the duration of the outage. Second, even if uranium had to be imported, the refueling would be infrequent. Finally, because it can operate continuously without refueling, intermittency is not a concern.

Most remarkably, the small modular reactors may be installed underground, protecting against the vulnerabilities of a physical attack or natural disaster.[225] In one design, the reactor is sealed underground once the reactor is installed, and access to the reactor is only necessary for refueling purposes.[226] With passive safety features and long refueling intervals, this design inherently protects against proliferation of the reactor for weaponry.[227]

In terms of output, small modular reactors are sufficient to meet installation energy demands.[228] A 40 MWe nuclear reactor plant would be sufficient for approximately 90% of military installations.[229] Moreover, as power demands increase, more modules may be added, improving the flexibility to changing demand while simultaneously lowering investment risk.[230] In the context of securing the installation against a power outage, a modular reactor, when networked with existing backup generation systems, could yield a 99.6% overall reliability.[231] In stark contrast to the output of other renewable energy sources, nuclear power is uniquely able to single-handedly provide an energy source truly independent of the commercial electric grid. Moreover, calculations estimate the cost of power produced from small modular nuclear reactors to be from $0.07 per kWh to $0.20 per kWh.[232]

Siting, of course, still poses a challenge due to safety concerns and limiting risks of attack or sabotage.[233] Even as a threshold issue, siting is difficult because of the strict siting criteria the NRC must impose to ensure public safety.[234] NRC regulations specifically require that the NRC consider the use of the site, geologic and seismic factors, and the proximity of hazards, including military facilities, when determining where to site nuclear facilities.[235] A related issue, and perhaps the most significant obstacle to large-scale deployment of small modular reactors, is waste disposal.[236] Currently, nuclear waste is stored in on-site facilities because a long-term storage solution has not yet cleared regulatory requirements.[237] Presumably, a military installation would provide

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225 Cunningham, *supra* note 216, at 4.
226 *Id.*
227 *Id.*
228 Andres & Breetz, *supra* note 71, at 3.
229 King et al., *supra* note 203, at 23.
230 *Id.* at 4; Andres & Breetz, *supra* note 71, at 6.
231 King et al., *supra* note 203, at 26.
232 *Id.* at 41 (assuming the reactor will operate as intended for sixty years and is owned and operated by a private entity that pays businesses taxes and uses market financing).
233 *Id.* at 15.
234 *See* 10 C.F.R. § 100.1 (2015).
235 10 C.F.R. § 100.20 (2015).
236 King et al., *supra* note 203, at 28.
237 *Id.*; *see* Nuclear Energy Inst., Inc. v. Envtl. Prot. Agency, 373 F.3d 1251, 1258 (D.C. Cir. 2004); Timothy P. Cairns, *Waiting for the Mountain to Come to DOE: Existing Options for Compromise Between the Department of Energy and Nuclear Utilities Regarding the Disposal of Spent Nuclear Fuel*, 26 WM. & MARY ENVTL. L. & POL'Y REV. 407, 421–22 (2001).

greater security, but the proximity to the base is concerning.[238] Thus, unless sited near a traditional nuclear reactor with the on-site capacity to store the waste, disposal could be a threat to the viability of this model.

Though some modular reactors are nearing the end stages of development and implementation, none are currently licensed or in use.[239] Moreover, it could be several years before they receive design approval from the NRC for deployment at installations.[240] It is therefore imperative that the DoD commandeer this innovation to shape future development and implementation to best serve the military's purposes at domestic installations.[241] Unlike a mandate that relies exclusively on renewable energy, a transition to this type of energy that is independent from the commercial power grid, reliable, sustainable, permanent, and arguably more secure is precisely what is needed to effectively combat the national security and military preparedness threats.

VIII. Conclusion

Transitioning away from fossil fuels and reliance on the commercial electric grid is an ambitious, timely, and crucial goal for the military. But, as the historical exceptionalism for the military has demonstrated, the public interest in national security and military preparedness will, and arguably must, be paramount above all other considerations. Although the current renewable energy mission provides environmental protection unlike the military missions that shaped the historic military exceptionalism, it is imperative not to be jaded by the seemingly pro-environment initiative when considering environmental policy and procedure.

At the same time, the military's pro-environment initiative should be embraced. Through quasi-exceptions to lessen the administrative burden of launching these programs, the military is ensured a relatively quick transition toward its ultimate goal of partial independence from the commercial grid. But the transition must not end there. To serve both the national security and environmental protection missions, a long-term, truly independent and secure energy source must be deployed, and renewables simply do not have the capacity to fill that role. Adopting battle-tested modular nuclear technology does.

As the protector of the nation, the military is poised to fuel the innovation necessary to address the real and imminent threat of reliance on the commercial electric grid. This critical mission will be the rallying war cry for a short-term transition to renewable energy sources to reach a long-term, independent, and secure energy source.

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238 King et al., *supra* note 203, at 37 (detailing how although a terrorist attack on spent fuel pools would be difficult, it is still possible); Rizer, *supra* note 180, at 230 (describing how a terrorist attack could include draining to pools in which spent fuel rods are stored, which would cause the rods to ignite, sending radioactive materials airborne, although such a feat would be extremely difficult to execute without some sort of intervention given the amount of water that needs to be drained and the time it would take for the rods to ignite).

239 Andres & Breetz, *supra* note 71, at 5.

240 *Id.* (estimating that it will take ten years to get full regulatory approval).

241 *See id.* at 10.

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RE-"ARRANGING" CERCLA LIABILITY: WHAT IS THE STATE OF ARRANGER LIABILITY POST-*BURLINGTON NORTHERN SANTA FE RAILWAY COMPANY V. UNITED STATES*?

BY HEIDI RASMUSSEN

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INTRODUCTION

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was enacted in 1980 for two primary purposes: (1) providing prompt cleanup of sites contaminated by releases of hazardous substances; and (2) holding responsible parties liable for damages caused by improper hazardous waste disposal.[1] Due to its hasty drafting and remedial nature, early lower courts typically interpreted CERCLA as casting a wide net for liable parties.[2]

CERCLA holds responsible parties strictly liable for site contamination. Specifically, there are four types of CERCLA responsible parties: (1) current owners or operators, (2) owners or operators at the time of disposal, (3) arrangers, and (4) transporters.[3] While

1 Dedham Water Co. v. Cumberland Farms Dairy, Inc., 805 F.2d 1074, 1081 (1st Cir. 1986) (quoting United States v. Reilly Tar & Chem. Corp., 546 F.Supp. 1100, 1112 (D. Minn. 1982)); *see* 42 U.S.C. §§ 9605, 9607 (2002).

2 *See Dedham Water Co.*, 805 F.2d at 1081; Gen. Elec. Co. v. AAMCO Transmissions, Inc., 962 F.2d 281, 285 (2d Cir. 1992); United States v. Mottolo, 605 F.Supp. 898, 902 (D.N.H. 1985); *Reilly Tar & Chem. Corp.*, 546 F.Supp. at 1112.

3 *See* 42 U.S.C. § 9607(a).

some of these categories are straightforward and leave scant room for litigation,[4] the arranger category has been a chronic source of confusion and inconsistency.[5]

Divining who Congress intended to include in the arranger category in CERCLA has been a notoriously difficult task. As one court framed the issue:

> We have previously said that "neither a logician nor a grammarian will find comfort in the world of CERCLA," . . . a statement that applies with force to § 9607(a)(3). Section 9607(a)(3) does not make literal or grammatical sense as written. It is by no means clear to what the phrase "by any other party or entity" refers. Pakootas argues that it refers to a party who owns the waste; and Teck argues that it refers to a party who arranges for disposal with the owner. To make sense of the sentence we might read the word "or" into the section, which supports Pakootas's position, or we might delete two commas, which supports Teck's position. Neither construction is entirely felicitous.[6]

This remark aptly illustrates the confusion surrounding CERCLA generally and arranger liability specifically.

Lower courts have consistently interpreted CERCLA broadly, often beginning their CERCLA analysis by explicitly stating this premise.[7] For example, when deciding a case of arranger liability, one district court noted that courts have broadly construed different elements within the traditional definition of arranger liability.[8] Another district court noted in its opinion that, because CERCLA has a "broad remedial reach," defenses to CERCLA liability should be interpreted narrowly.[9] The Supreme Court, on the other hand, has not adhered to this broad interpretation.[10]

In 2009, the Supreme Court rendered a decision on arranger liability in *Burlington Northern & Santa Fe Railway Co. v. United States*.[11] Scholars and potential arrangers hoped that *Burlington Northern* would provide much-needed clarification for the unique category of CERCLA arranger liability. Unfortunately, regarding arranger liability specifically, some scholars indicate that, even after *Burlington Northern*, there is still a need for clarification.[12] This note: (1) addresses the state of arranger liability under CERCLA prior to *Burlington Northern*; (2) examines the *Burlington Northern* decision itself; (3) analyzes three post-*Burlington Northern* decisions to determine whether those decisions

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4 *Id.* (identifying, for example, "the owner and operator of a vessel or a facility" as a responsible party leaves little room for interpretation).

5 *See* Pakootas v. Teck Cominco Metals, Ltd., 452 F.3d 1066, 1079–80 (9th Cir. 2006).

6 *Id.* (quoting Carson Harbor Vill., Ltd. v. Unocal Corp., 270 F.3d 863, 883 (9th Cir. 2001)).

7 *See, e.g.*, United States v. Aceto Agric. Chem. Corp., 872 F.2d 1373, 1380 (8th Cir. 1989); United States v. New Castle Cnty., 727 F.Supp. 854, 871 (D. Del. 1989); United States v. Alliedsignal, Inc., 62 F.Supp.2d 713, 726 (N.D.N.Y. 1999).

8 Mainline Contracting Corp. v. Chopra-Lee, Inc., 109 F.Supp.2d 110, 118 (W.D.N.Y. 2000).

9 N.Y. State Elec. & Gas Corp. v. First Energy Corp., 808 F.Supp.2d 417, 487 (N.D.N.Y. 2011), *aff'd in part, vacated in part*, 766 F.3d 212 (2d Cir. 2014).

10 *See generally* Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599 (2009); United States v. Bestfoods, 524 U.S. 51 (1998).

11 556 U.S. 599 (2009).

12 Alexandra E. Shea, *CERCLA Arranger Liability and the Intent to Dispose of Hazardous Waste*, 59-JUL FED. LAW. 42, 42 (2012).

comply with the principles in *Burlington Northern*; and (4) provides suggestions for parties potentially facing arranger liability.

I. Arranger Liability

Under CERCLA, an arranger is:

> [A]ny person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances . . . .[13]

Although it is not clear from the statute's terms, the arranger category of liability is unique. Typically, the other categories of liability (transporters, owners, and operators) are found liable without consideration of intent.[14] Arranger liability, however, inherently examines intent, at least according to several courts' interpretations.[15] As one court indicated:

> [D]iscussing state of mind in a CERCLA case appears inappropriate . . . [However, n]otwithstanding the strict liability nature of CERCLA, it would be error for us not to recognize the indispensable role that state of mind must play in determining whether a party has "otherwise arranged for disposal . . . of hazardous substances."[16]

However, prior to *Burlington Northern*, the interpretation of CERCLA liability for arrangers was split. Some courts took a broad view of arranger liability,[17] while other courts took a narrow view.[18]

In its broad interpretation of arranger liability, one court relied on knowledge of the disposal to impose liability.[19] In *Cello Foil Products*, the Sixth Circuit held that the district court inappropriately granted summary judgment on the issue of arranger liability.[20] The plaintiffs claimed that the defendants arranged with a third party to pick up drums containing hazardous residue.[21] The third party would dispose of the drums and then credit the defendants with a drum deposit.[22] In its analysis, the Sixth Circuit relied solely on the party having the intent to be an arranger.[23] The court stated that, "[o]nce a party

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13 42 U.S.C. § 9607(a)(3) (2002).
14 *See id.* § 9607(a). *See also* Cal. Dep't of Toxic Substances Control v. Hearthside Residential Corp., 613 F.3d 910, 912–13 (9th Cir. 2010); *Burlington N.*, 556 U.S. at 608–09.
15 *See* United States v. Cello-Foil Prods., Inc., 100 F.3d 1227, 1232 (6th Cir. 1996).
16 *Id.* at 1231 (quoting 42 U.S.C. § 9607(a)) (alteration in original).
17 *See id.*
18 *See* Carolina Power & Light Co. v. Alcan Aluminum Corp., 921 F.Supp.2d 488, 500 (E.D.N.C. 2013).
19 *Cello Foil Prods., Inc.*, 100 F.3d at 1233–34.
20 *Id.*
21 *Id.* at 1231.
22 *Id.*
23 *Id.* at 1232.

is determined to have the requisite intent to be an arranger, then strict liability takes effect."[24] The court further indicated that, if a party has the intent to be an arranger, the party cannot escape liability by simply claiming that it did not intend to dispose of the waste in a particular manner.[25] Ultimately, the Sixth Circuit determined that the district court erred and that there was a genuine issue of material fact on the issue of intent.[26]

Some courts, however, have taken a narrower view of arranger liability.[27] The *Carolina Power & Light Co.* court noted that several factors must be analyzed in determining whether arranger liability is appropriate.[28] Some of these factors include "[k]nowledge of disposal . . ., the value of the materials sold, the usefulness of the materials in the condition in which they were sold, and the state of the product at the time of transferral."[29] This type of analysis results in a narrower view of arranger liability; given this variety of considerations, it is generally less likely for a court to find a party liable.[30]

Post-*Burlington Northern*, it seems that little has changed. Interpretations are still both broad and narrow, and in both instances, the courts seemingly rely on *Burlington Northern* for their respective interpretations. To understand *Burlington Northern*'s impact, or lack thereof, it is first important to understand the Supreme Court's decision in *Burlington Northern*.

II. *BURLINGTON NORTHERN* DECISION

The facts of *Burlington Northern* are not particularly unique among CERCLA arranger liability cases. Brown & Bryant, Inc. (Brown & Bryant) operated a chemical distribution business.[31] Shell sold pesticides, D-D and Nemagon, to Brown & Bryant.[32] Shell arranged for delivery by common carrier.[33] When the pesticides arrived, they were transferred from tanker trucks to a storage facility located on Brown & Bryant's property.[34] Although the carrier used buckets to catch spills from hoses, the buckets sometimes overflowed and spilled onto the ground.[35] Shell was aware that the spills were common, so Shell took steps to encourage safe handling of the pesticides.[36] Shell provided detailed safety manuals and instituted a discount program for distributors that made improvements in the frequency of spills.[37] Later, Shell even required inspections

24 *Id.*
25 *Id.*
26 *Id.* at 1233–34.
27 *See* Carolina Power & Light Co. v. Alcan Aluminum Corp., 921 F.Supp.2d 488, 500 (E.D.N.C. 2013).
28 *Id.* at 496.
29 *Id.*
30 *See id.* at 498, 501.
31 Burlington N. & Santa Fe. Ry. Co. v. United States, 556 U.S. 599, 602 (2009).
32 *Id.* at 603.
33 *Id.*
34 *Id.*
35 *Id.* at 604.
36 *Id.*
37 *Id.*

and self-certification of compliance.[38] Brown & Bryant certified to Shell that it made the recommended improvements.[39]

Despite the improvements, Brown & Bryant continued to run a "sloppy" operation.[40] In 1983, the California Department of Toxic Substances Control (DTSC) and the U.S. Environmental Protection Agency (EPA) investigated Brown & Bryant's violations of hazardous waste laws.[41] These investigations uncovered contamination at the site.[42] Although Brown & Bryant made efforts to remediate the site, Brown & Bryant became insolvent in 1989 and ceased all operations.[43] Their facility was added to the National Priorities List (NPL),[44] and both the California DTSC and the EPA made cleanup efforts at the site.[45]

The agencies brought a recovery action against Shell and other responsible parties for recovery of cleanup costs.[46] The district court found Shell liable, but apportioned the costs among several responsible parties.[47] Shell appealed the finding of liability.[48] The Ninth Circuit, using an analysis broader than the district court's, found that Shell could be liable under "a broader category of arranger liability if the disposal of hazardous wastes [wa]s a foreseeable byproduct of, but not the purpose of, the transaction giving rise to arranger liability."[49] Specifically, the Ninth Circuit found:

> Shell arranged for delivery of the substances to the site by its subcontractors; was aware of, and to some degree dictated, the transfer arrangements; knew that some leakage was likely in the transfer process; and provided advice and supervision concerning safe transfer and storage. Disposal of a hazardous substance was thus a necessary part of the sale and delivery process.[50]

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38 *Id.*

39 *Id.*

40 *Id.*

41 *Id.*

42 *Id.*

43 *Id.* at 605.

44 *Id.*; *Final National Priorities List (NPL)*, U.S. ENVTL. PROT. AGENCY (Jan 5, 2015), http://www.epa.gov/superfund/sites/query/queryhtm/nplfin1.htm, *archived at* http://perma.cc/TV73-RQFL. This list is prepared by the EPA and includes national priorities among the "known releases or threatened releases of hazardous substances, pollutants, or contaminants." National Priorities List for Uncontrolled Hazardous Waste Sites — Final Rule, 54 Fed. Reg. 41,015-01, 41,015 (Oct. 4, 1989) (codified at 40 C.F.R. pt. 300). The list is to be revised at least annually. *Id.*

45 *Burlington N.*, 556 U.S. at 605.

46 *Id.*

47 *Id.* at 605–06. Apportionment in a CERCLA case, let alone *sua sponte* apportionment, was a rarity prior to this case. Martha L. Judy, *Coming Full CERCLA: Why Burlington Northern is not the Sword of Damocles for Joint and Several Liability*, 44 NEW ENG. L. REV. 249, 283 (2010).

48 *Burlington N.*, 556 U.S. at 606.

49 *Id.* at 606–07 (alteration in original) (internal quotation marks omitted) (quoting United States v. Burlington N. & Santa Fe Ry. Co., 520 F.3d 918, 948 (9th Cir. 2007), *rev'd*, 556 U.S. 599 (2009)).

50 *Id.* at 607 (quoting *Burlington N.*, 520 F.3d at 950).

The Ninth Circuit concluded that arranger liability was not precluded simply because Shell transported "a useful and previously unused product."[51]

The Supreme Court took a different approach. The Court cautioned, "knowledge alone is insufficient to prove that an entity 'planned for' the disposal, particularly when the disposal occurs as a peripheral result of the legitimate sale of an unused, useful product."[52] The Supreme Court stated, "It is similarly clear that an entity could not be held liable as an arranger merely for selling a new and useful product if the purchaser of that product later, and *unbeknownst to the seller*, disposed of the product in a way that led to contamination."[53] The Court indicated that a fact-intensive analysis was required to determine whether the arrangement was a sale or a disposal.[54] The Court found that evidence produced at trial showed only that:

> [While] Shell was aware that minor, accidental spills occurred during the transfer of D-D from the common carrier to B & B's bulk storage tanks after the product had arrived at the Arvin facility and had come under B & B's stewardship, the evidence does not support an inference that Shell intended such spills to occur.[55]

The Court instead found that Shell took "numerous steps to encourage its distributors to reduce the likelihood of such spills," provided them with information on how to do so, and provided discounts for compliance.[56] The Court found that it was not necessary for Shell's efforts to be successful, and further, mere knowledge of spills and leaks was an insufficient ground to charge Shell with arranger liability.[57]

Thus, the Court absolved Shell of liability but did little to clarify the state of arranger liability.[58] What exactly does create arranger liability for parties in the middle of the spectrum the Court described? If one has knowledge of the spills, does that require the potential arranger to take steps to absolve himself of liability? These are examples of key questions left open in the wake of the Court broadening protection from CERCLA arranger liability.

III. OTHER COURTS' INTERPRETATION OF THE SUPREME COURT'S DECISION IN *BURLINGTON NORTHERN*

Given the variety of decisions that have come out of lower courts post-*Burlington Northern*, it is clear that *Burlington Northern* did little to provide a bright-line standard for courts to follow regarding arranger liability.[59] In fact, it appears that *Burlington Northern* caused confusion among scholars and courts alike. As one scholar argued, "it appears

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51 *Id.*
52 *Id.* at 612.
53 *Id.* at 610 (emphasis added).
54 *Id.*
55 *Id.* at 612–13.
56 *Id.* at 613.
57 *Id.*
58 *Id.*
59 *See infra* Part IV.A–B.

that the surest way for a company shipping hazardous materials to another facility to avoid arranger liability will be to take steps to encourage the recipient . . . to reduce the likelihood of spills."[60] However, lower courts have not clearly indicated that this is a line of demarcation between liability and non-liability.[61] In fact, the language in the *Burlington Northern* decision can be read to seriously narrow the scope of CERCLA liability.[62] However, other courts seem to indicate that *Burlington Northern* fits in neatly with the progression of decisions on arranger liability,[63] and some scholars even point to it as a case that provided much-needed clarification of arranger liability.[64]

While there have been several arranger decisions post-*Burlington Northern*, two cases in particular, *United States v. General Electric Co.*[65] and *Appleton Papers Inc. v. George A. Whiting Paper Co.*,[66] illustrate that arranger liability has apparently continued to be interpreted in a fashion similar to pre-*Burlington Northern* jurisprudence.

A. *United States v. General Electric*

Read too narrowly, *Burlington Northern* would eliminate most forms of arranger liability for the simple reason that most would-be arrangers lack the specific intent to simply dump hazardous wastes into the environment.[67] In fact, the Supreme Court itself recognized that "[i]t is plain from the language of the statute that CERCLA liability would attach under § 9607(a)(3) if an entity were to enter into a transaction for the sole purpose of discarding a used and no longer useful hazardous substance."[68] In *General Electric*, the First Circuit continued to broadly interpret the arranger category despite the Supreme Court's analysis in *Burlington Northern*, which is most correctly read to narrow CERCLA liability.[69]

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60 Peter J. McGrath, Jr., Burlington Northern & Santa Fe Railway Co., et al v. United States: *Defining Environmental Law or Changing It?*, 3 CHARLOTTE L. REV. 85, 92 (2011).

61 *See generally* United States v. Gen. Elec. Co., 670 F.3d 377, 389–90 (1st Cir. 2012); Appleton Papers Inc. v. George A. Whiting Paper Co., 776 F.Supp.2d 857, 863–64 (E.D. Wis. 2011), *on reconsideration*, No. 08-C-16, 2011 WL 2633332 (E.D. Wis. July 5, 2011) *and opinion clarified*, No. 08-C-16, 2011 WL 4585343 (E.D. Wis. Sept. 30, 2011) *and aff'd in part, vacated in part*, NCR Corp. v. George A. Whiting Paper Co., 768 F.3d 682 (7th Cir. 2014).

62 *See* Shea, *supra* note 12.

63 *See generally Gen. Elec. Co.*, 670 F.3d at 384.

64 Katherine E. Vogt, *Do Polluters Truly Pay? A Chip in the "Potentially Responsible Parties" Analysis for Hazardous Waste Cleanup* Celanese Corporation v. Martin K. Eby Construction Company, Inc., 18 MO. ENVTL. L. & POL'Y REV. 570, 579 (2011).

65 United States v. Gen. Elec. Co., 670 F.3d 377 (1st Cir. 2012).

66 Appleton Papers Inc. v. George A. Whiting Paper Co., 776 F.Supp.2d 857 (E.D. Wis. 2011).

67 *See* Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 612 (2009) ("While it is true that in some instances an entity's knowledge that its product will be leaked, spilled, dumped, or otherwise discarded may provide evidence of the entity's intent to dispose of its hazardous wastes, knowledge alone is insufficient to prove that an entity "planned for" the disposal, particularly when the disposal occurs as a peripheral result of the legitimate sale of an unused, useful product.").

68 *Burlington N.*, 556 U.S. at 609–10.

69 *Compare Gen. Elec. Co.*, 670 F.3d at 384, *with* Shea, *supra* note 12, at 42–43.

General Electric (GE) manufactured electric capacitors that contained Pyranol.[70] GE refined "virgin" polychlorinated biphenyls (PCBs) into Pyranol, a substance used in manufacturing electric capacitors.[71] To be of use, the Pyranol had to meet certain purity specifications.[72] Pyranol that did not meet these standards was stored away in fifty-five gallon drums in scrap areas.[73] Over time, GE accumulated an abundance of scrap Pyranol.[74] At some point, GE came into contact with Fred Fletcher, a local "chemical scrapper."[75] Fletcher and GE eventually entered into an informal agreement under which Fletcher purchased scrap Pyranol from GE to use as a plasticized additive for his paints.[76] Fletcher regularly purchased fifty-five gallon drums of Pyranol from GE for approximately ten years.[77]

Initially, one of Fletcher's employees would retrieve the scrap Pyranol from the GE plants, but as the transfers increased, Fletcher and GE hired a third party to haul the Pyranol barrels in larger trucks.[78] Beginning in early 1966, Fletcher began missing payments.[79] In August 1967, GE notified Fletcher via a collection letter that his account was delinquent by over six thousand dollars.[80] GE, however, continued to deliver more shipments of the scrap Pyranol to Fletcher.[81] In 1968, the relationship finally ended when Fletcher responded to GE's collection attempts by noting that many of the scrap Pyranol shipments were of such poor quality as to render them useless.[82] The EPA discovered the Fletcher Site in 1987, with hundreds of drums of scrap Pyranol.[83] In 1989, the Fletcher Site was added to the NPL, and in 1991, the United States initiated an action against GE to recoup costs associated with the Fletcher Site's cleanup.[84]

At the outset, the First Circuit seemed to carefully track the Supreme Court's analysis in *Burlington Northern*.[85] It began by indicating that, in the spectrum of liability, the case at bar definitely fell in the middle.[86] The First Circuit then provided the Supreme Court's *Burlington Northern* definition of arranger: "an entity may qualify as an arranger under § 9607(a)(3) when it takes *intentional steps* to dispose of a hazardous substance."[87]

GE argued that the district court applied the wrong legal standard to the case and that *Burlington Northern* only clarified that CERCLA liability attaches "where a person

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70 *Gen. Elec. Co.*, 670 F.3d at 380.
71 *Id.*
72 *Id.*
73 *Id.*
74 *Id.*
75 *Id.*
76 *Id.*
77 *Id.*
78 *Id.*
79 *Id.*
80 *Id.*
81 *Id.*
82 *Id.* at 380–81.
83 *Id.* at 381.
84 *Id.*
85 *Id.* at 382–83.
86 *Id.* at 382–383.
87 *Id.* at 383 (alteration in original) (quoting Burlington N. & Santa Fe. Ry. Co. v. United States, 556 U.S. 599, 611 (2009)).

or entity has the distinctly apparent objective of disposing of its hazardous substances."[88] Consequently, the court responded that *Burlington Northern* should not be read so narrowly; GE's reading only defined one end of the spectrum in this argument.[89] The First Circuit then analyzed GE's claim using the "useful product doctrine" outlined by the Supreme Court in *Burlington Northern*.[90] In doing so, it explained that in *Burlington Northern*, Shell was disposing of a new and useful product, but ultimately, GE viewed the scrap Pyranol as waste material; the profit they derived from its sale to Fletcher was "subordinate and incidental to the immediate benefit of being rid of an overstock of unusable chemicals."[91] According to the court, the facts revealed that GE viewed the scrap Pyranol as waste; this was evidenced by GE's behavior in labeling the drums of scrap Pyranol, giving away scrap Pyranol to employees, dumping Pyranol into the Hudson River, and taking Pyranol to landfills.[92] The court also noted that GE did not provide quality control over what was sent to Fletcher or attempt to market scrap Pyranol.[93]

Compared to *Burlington Northern*, the First Circuit's analysis seems strikingly broad for several reasons. First, the court viewed GE selling scrap Pyranol to local government entities for use as a dust suppressant as evidence against finding that GE sold the scrap Pyranol as a useful product.[94] This seems to indicate that GE was, in fact, selling a useful product to Fletcher. Additionally, the court cited no authority for making the lack of marketing a factor in the analysis of scrap Pyranol as a useful product.[95] Furthermore, the court indicated that the lack of a viable market should also be considered a factor in determining whether a party is an arranger under CERCLA.[96] Thus, the First Circuit seemed to start using the *Burlington Northern* analysis, but then strayed from this analysis and emphasized factors absent from the *Burlington Northern* opinion.[97]

After noting initially that the useful product test was a substitute for determining intent, the First Circuit went on to analyze GE's actions in terms of satisfying the intent requirement for CERCLA arranger liability.[98] In this part of its analysis, the court relied heavily on a letter from Fletcher and indicated that this letter "upends" GE's claim that it was selling Pyranol for a useful and legitimate purpose.[99] Here, the First Circuit seemed to turn the analysis on its head because, instead of focusing on GE's intentions, the court focused on Fletcher's view of what GE sent.[100]

The First Circuit's analysis further departed from *Burlington Northern* when it analyzed what it deemed to be a "crucial distinction" between Shell and GE.[101] The court

88 *Id.* at 384.
89 *Id.* at 384–86.
90 *Id.* at 385–86.
91 *Id.*
92 *Id.*
93 *Id.* at 385–86.
94 *Id.* at 385.
95 *See id.* at 386.
96 *Id.*
97 *See generally* Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 609–13 (2009).
98 *Gen. Elec. Co.*, 670 F.3d at 385–91.
99 *Id.* at 388–89.
100 *Id.*
101 *Id.* at 389.

indicated that one important factor in *Burlington Northern* was Shell's active steps to reduce spillage and that no spills were intended in the first place.[102] GE, on the other hand, took steps that would ultimately *increase* the likelihood of improper disposal.[103] First, GE tried to corroborate the claims Fletcher made about the poor quality of the scrap Pyranol.[104] An internal GE letter stated: "This certainly is not the material that [Fletcher] agreed to buy at $3.75 per drum."[105] While this corroborates that the quality was poor, it does little to advance the First Circuit's theory that GE *intended* to get rid of a useless product. Rather, it merely shows that the product GE sold was poor quality.[106]

The court's second point of analysis was that GE forgave Fletcher's debt.[107] The court indicated that forgiving this debt was evidence of the "calculus that accounted for the fact that GE viewed scrap Pyranol as a waste product that should have been discarded and the company stood to benefit financially by leaving Fletcher to deal with the issue of disposal."[108] The court's final evidence on this point against GE was that GE made "no effort, either then or at a later date, to retrieve, cleanup, or otherwise properly dispose of the thousands of drums of scrap Pyranol Fletcher had claimed were unusable to him."[109]

While the court made valid points against GE, noting that GE *should* have acted differently,[110] these points seem to again highlight as an important factor a point that *Burlington Northern* did not.[111] After summarizing the points against GE, the First Circuit then seemed to write out of the equation the supposedly important intent analysis by stating: "Though the initial arrangement (informal as it was) may not have, in express terms, *directed* Fletcher to dispose of GE's scrap Pyranol, GE certainly understood this would be the result of its actions and took the conscious and intentional step of leaving Fletcher to dispose of the materials."[112] This seems to be an attempt to rewrite what was said in *Burlington Northern* to fit the First Circuit's opinion. The court argued that, although initially GE did not demonstrate the intent to sell a useless product to Fletcher, once GE discovered that the product was useless, GE's failure to take steps to help Fletcher should peg GE with liability.[113] Thus, while the First Circuit was careful to quote *Burlington Northern*, the court's analysis does not seem to track what the Supreme Court actually held.[114] Because it focused on factors not emphasized by the Supreme

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102 *Id.*
103 *Id.*
104 *Id.*
105 *Id.* (alteration in original).
106 *See id.*
107 *Id.*
108 *Id.*
109 *Id.* at 390.
110 *See id.* at 389–90.
111 *See generally* Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 609–13 (2009).
112 *Gen. Elec. Co.*, 670 F.3d at 391.
113 *Id.*
114 *See id.* (citing *Burlington N.*, 556 U.S. at 610; "However, because the statute does not define what it means to arrange for disposal of a hazardous substance under § 9607(a)(3), there remains a middle ground between these two extremes—to which we can comfortably say this case belongs—in which a seller entity will have *some* knowledge of [a] buyers' planned

Court in *Burlington Northern*, the First Circuit's opinion appears to indicate a return to a broad interpretation of CERCLA arranger liability.[115]

B. *Appleton Papers Inc. v. George A. Whiting Paper Co.*

Appleton Papers Inc. v. George A. Whiting Paper Co.[116] provides a distinct contrast to *United States v. General Electric*. While both cases relied on *Burlington Northern*,[117] a comparison of these cases illustrates how the Supreme Court's language in *Burlington Northern* has caused confusion among lower courts and, in some cases, weakened the strength of CERCLA's typically robust strict liability. This opinion decided the defendants' motions for summary judgment;[118] thus, while there is not an ultimate determination on arranger liability, the opinion provides an example of how lower courts interpret arranger liability inconsistently.

In *Appleton Papers*, a paper company produced carbonless copy paper by creating a PCB-laden emulsion.[119] The company sent this emulsion to Appleton Coated Paper Company (ACPC), which used the emulsion to coat the paper according to plaintiff NCR Corporation's specifications.[120] This process resulted in a waste product consisting of "paper scrap and trimmings" known as "broke."[121] ACPC sold this product to paper recycling companies for use in their respective papermaking facilities.[122] The recycling process resulted in the discharge of PCBs into the Fox River Site.[123] The district court addressed whether ACPC could be held liable as an arranger under CERCLA in light of the Supreme Court's decision in *Burlington Northern*.[124] The court focused on ACPC's intent in selling the broke.[125] The court determined that it was ACPC's "intent to 'dispose' of the broke in a general sense."[126] The court noted that "it simply wanted to get rid of it — but it is much less clear that it intended to dispose of the product in the § 6903(3) sense, which is what matters."[127] ACPC argued that, while it intended to get

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disposal or whose motives for the 'sale' . . . are less than clear.") (alteration in original) (internal quotation marks omitted).

115 *Id.* at 611-613.

116 776 F.Supp.2d 857, 863–64 (E.D. Wis. 2011), *on reconsideration*, No. 08-C-16, 2011 WL 2633332 (E.D. Wis. July 5, 2011) *and opinion clarified*, No. 08-C-16, 2011 WL 4585343 (E.D. Wis. Sept. 30, 2011) *and aff'd in part, vacated in part*, NCR Corp. v. George A. Whiting Paper Co., 768 F.3d 682 (7th Cir. 2014).

117 *See Gen. Elec. Co.*, 670 F.3d, 382-387; *Appleton Papers*, 776 F.Supp.2d at 861-65.

118 Multiple defendants in the case filed motions for summary judgment on the issue of arranger liability. *Appleton Papers*, 776 F.Supp.2d at 859.

119 *Id.* at 861.

120 *Id.*

121 *Id.*

122 *Id.*

123 *Id.*

124 *Id.* at 861–62.

125 *Id.* at 862.

126 *Id.*

127 *Id.* (The CERCLA definitions of Section 6903(3) point to the Resource Conservation and Recovery Act's (RCRA) definition of disposal. Under RCRA, "disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any

rid of the broke, it never intended for it to end up in the river.[128] Thus, ACPC argued it was not liable as an arranger.[129]

Interestingly, the court used overly-narrow language to begin its analysis, but ultimately reached a conclusion consistent with the Supreme Court's analysis in *Burlington Northern*.[130] The court indicated that the Supreme Court's conclusion in *Burlington Northern* could not be read as narrowly as ACPC proposed.[131] Rarely, if ever, will an entity actually intend that a hazardous substance be disposed of into the environment as technically required by Section 6903(3).[132] The court argued that reading *Burlington Northern* "too narrowly" would eliminate most forms of arranger liability "for the simple reason that most would-be arrangers lack the specific intent that their waste end up in the environment."[133] The court further noted that "'knowledge alone' of leaks or discharges is not enough."[134] Instead, "[t]he only possible basis for arranger liability [in *Burlington Northern*] was that Shell knew there would be some accidental leaks, but the court concluded that was not sufficient to demonstrate intent, particularly when Shell took steps to *prevent* those leaks."[135]

The district court then applied *Burlington Northern*.[136] ACPC argued that, because it *sold* the broke instead of hiring a disposal company to take it away, the broke was a valuable product rather than waste.[137] The court noted that courts in other CERCLA cases had warned against turning the sale of a useful product into arranger liability.[138] The court was wary of the potential slippery slope of that type of decision.[139] For instance, it quoted *G.J. Leasing v. Union Electric Co.*, in which the court opined that "the sale of a product which contains a hazardous substance cannot be equated to the disposal of the substance itself or even the making of arrangements for its subsequent disposal."[140] ACPC asserted that it was further removed from responsibility because it sold to brokers rather than disposal companies or recyclers.[141]

While the court did not find a lack of arranger liability, this decision was a "close question" and a "fact-intensive one."[142] The court characterized this as a "mixed motives" case in which the arranger intended to dispose of waste materials and also make money doing so.[143] While the court made clear that a product's having a scrap value does

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constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters." 42 U.S.C.A. § 6903(3) (1992)).

128 *Appleton Papers*, 776 F.Supp.2d at 862.
129 *Id.*
130 *Id.* at 864.
131 *Id.* at 863.
132 *Id.*
133 *Id.*
134 *Id.*
135 *Id.*
136 *Id.*
137 *Id.*
138 *Id.*
139 *Id.* at 863–64.
140 *Id.* at 864 (quoting G.J. Leasing v. Union Elec. Co., 54 F.3d 379 (7th Cir. 1995)).
141 *Id.*
142 *Id.*
143 *Id.*

not remove arranger liability, it determined that it would be possible to conclude in light of the evidence that ACPC did not arrange for disposal of their waste product.[144] The court again pointed to *Burlington Northern* for the proposition that "knowledge alone" is not enough, but explained that it was still possible that ACPC could have arranger liability.[145] The court ultimately found, however, that the facts were not strong enough to grant the defendants' motion for summary judgment on the issue of arranger liability.[146]

IV. The Current State of Arranger Liability

It is clear from the comparison of these two opinions that, after *Burlington Northern*, courts still interpret arranger liability inconsistently. This inconsistency presents a troubling issue for practitioners. However, some guidance exists for practitioners when faced with a potential case of arranger liability. First, practitioners should consider the potential impact of the most recent Supreme Court CERCLA case. Second, practitioners can follow guidelines specific to CERCLA arranger liability.

A. Supreme Court CERCLA Developments

In analyzing any CERCLA case, it is important to consider the language in the Supreme Court's most recent CERCLA cases. In *CTS Corp. v. Waldburger*, the Supreme Court came even closer to definitively stating that a broad interpretation of CERCLA is inappropriate.[147] While the *Waldburger* decision specifically related to CERCLA's statute of limitations,[148] the language of the opinion could be applied to other aspects of CERCLA. The Supreme Court's decision did not provide closure on whether courts are allowed to construe CERCLA liberally,[149] but *Waldburger* still contains important lessons for interpreting CERCLA cases generally.

First, in *Waldburger*, the Supreme Court criticized a lower court's broad construction of CERCLA.[150] In *Waldburger*, the Supreme Court was interpreting 42 U.S.C. § 9658, CERCLA's statute of limitations.[151] The fact that the Supreme Court criticized a broad interpretation of CERCLA is significant because, as opposed to the Court's narrow reading of CERCLA in *Burlington Northern*, the Court stated that a broad interpretation of CERCLA without a proper foundation in the text or legislative history was inappropriate.[152] However, given this phrasing, *Waldburger* cannot be read to have provided a definitive answer as to whether CERCLA should be broadly interpreted.

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144 *Id.*
145 *Id.*
146 *Id.*
147 134 S.Ct. 2175 (2014).
148 *Id.* at 2179.
149 *Id.* at 2186.
150 *See id.* at 2185.
151 *Id.*; 42 U.S.C. § 9658 (1986).
152 *Waldburger*, 134 S.Ct. at 2185.

Second, the Court did not definitively specify that a broad interpretation of CERCLA was inappropriate.[153] Rather, the Court criticized one circuit court's use of the remedial canon of construction in reference to CERCLA.[154] The Court noted that "[t]he Court of Appeals was in error when it treated this as a substitute for a conclusion grounded in the statute's text and structure. After all, almost every statute might be described as remedial in the sense that all statutes are designed to remedy some problem."[155] However, the Court did not take a definitive stance that a broad interpretation was not appropriate.[156] Rather, the Court indicated that Congressional intent should be discerned from the statutory text, and if the Court were to adopt that presumption in this instance, there would be a presumption in favor of state sovereignty.[157]

Waldburger in some ways seems to build on *Burlington Northern*. In *Burlington Northern*, the Supreme Court suggested a narrower interpretation,[158] and in *Waldburger*, the Court criticized a broad interpretation outright.[159] Thus, practitioners should note that the Supreme Court criticized the use of the remedial purpose canon of construction as applied to CERCLA, although it did not definitively state that a broad interpretation was inappropriate.[160]

B. FIFTH CIRCUIT DEVELOPMENTS

Notably, in January 2015, the Fifth Circuit decided a CERCLA case on arranger liability in *Vine Street LLC v. Borg Warner Corp*.[161] In *Vine Street*, one of Borg Warner's former subsidiaries, Norge, sold dry cleaning machines and an initial supply of perchloroethylene (PERC), the chemical used in the dry cleaning machines, to another business.[162] Because PERC was expensive, Norge took steps to preserve as much PERC as possible; for instance, Norge used water separators that would release the wastewater and recycle the PERC.[163] Despite this precaution, some of the PERC was "discharged into the sewer along with the wastewater."[164] The plaintiff, who had purchased the property at issue, sued Borg Warner, among others, to recover cleanup costs.[165] The district court held that, under the useful product doctrine,[166] Borg Warner was liable as an arranger

153 *See generally id*. at 2185 ("In any event, were the Court to adopt a presumption to help resolve ambiguity, substantial support also exists for the proposition that the States' coordinate role in government counsels against reading federal laws such as § 9658 to restrict the States' sovereign capacity to regulate" in areas of traditional state concern.") (citations omitted) (internal quotations omitted).

154 *Id*.

155 *Id*.

156 *See id*.

157 *Id*.

158 Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 610 (2009).

159 *Waldburger*, 134 S.Ct. at 2185.

160 *Id*.

161 No. 07-40440, 2015 WL 178981, *1 (5th Cir. Jan. 14, 2015).

162 *Id*.

163 *Id*.

164 *Id*.

165 *Id*. at *2.

166 Applying the useful product doctrine, the Fifth Circuit had previously "held that a party is not liable as an arranger if it were engaged in the mere sale of a useful product that is not

under CERCLA.[167] Applying *Burlington Northern*, the Fifth Circuit reversed, finding that Norge did not intend to dispose of a hazardous substance, but rather that "the transaction centered around the successful operation of a dry cleaning business."[168]

As the facts of *Vine Street* closely parallel those in *Burlington Northern*, it would seem that *Vine Street* does not provide guidance for cases that fall elsewhere in the range of CERCLA arranger liability. However, in its analysis, the Fifth Circuit cited *General Electric* with approval, noting that "the CERCLA defendant in *General Electric* attempted to dispose of excess waste products through the guise of a legitimate transaction."[169] The Fifth Circuit's approval of *General Electric* is important for guiding practitioners in cases where the lines between intentional disposal of a product and the sale of a useful product begin to blur.

C. Arranger Liability Revisited

General Electric and *Appleton Papers* provide two possible but disparate readings of the *Burlington Northern* decision. While some have argued that *General Electric* was a "slam dunk case" of arranger liability,[170] the *General Electric* decision creates inconsistency with *Burlington Northern*. Ultimately, what is important for both practitioners and potential defendants is an understanding of what constitutes arranger liability. *Burlington Northern* did not provide a bright-line standard for parties, and given that confusion about many aspects of arranger liability has troubled courts since the statute's inception, it is unlikely that Congress will provide that clarification.

Therefore, taking a bird's eye approach, parties facing liability and practitioners searching for guidance should first look to the respective jurisdictions of federal courts deciding matters of arranger liability. For example, one 2014 district court arranger liability case from the Idaho took a narrow approach, consistent with *Appleton Papers*, and cited to a 2011 Ninth Circuit case that similarly took a narrow approach.[171] On the other hand, cases from the First Circuit seem to consistently call for a broad interpretation of arranger liability.[172] Thus, knowing how arranger liability cases are decided within a particular circuit, or even a particular district court, is critical for practitioners because of lower courts' inconsistency in applicable precedent.[173]

Second, parties should consider the approach that the Supreme Court took in *Burlington Northern*. The Court in *Burlington Northern* indicated that a fact-intensive analysis

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properly considered 'waste.'" *Id.* at *3 (citing Dayton Indep. Sch. Dist. v. U.S. Mineral Prods. Co., 906 F.2d 1059, 1065–66 (5th Cir. 1990)). However, the Fifth Circuit did not require an intent to dispose of waste, but the Fifth Circuit "imposed liability as long as there was a sufficient 'nexus' between the purported arranger and the disposal of waste." *Id.* (citing Geraghty & Miller, Inc. v. Conoco Inc., 234 F.3d 917, 929 (5th Cir. 2000)).

167 *Vine Street LLC*, No. 07-40440, 2015 WL 178981, *1-2.

168 *Id.* at *5.

169 *Id.* at *5 (citing United States v. General Electric Co., 670 F.3d 377 (1st Cir. 2012)).

170 *See, e.g.*, Paul G. Gosselink, *RCRA/Solid Waste Issues—Tombstone*, 2-3, 24th Annual Texas Environmental Superconference (Aug. 2012).

171 *See* United States v. Fed. Res. Corp., 30 F.Supp.3d 979, 995 (D. Idaho 2014) (citing Team Enters., LLC v. W. Inv. Real Estate Trust, 647 F.3d 901 (9th Cir. 2011)).

172 *See Gen. Elec. Co.*, 670 F.3d at 382–91.

173 *See supra* Part IV.A–B.

was important to each case.[174] Thus, there is not a safe harbor in the *Burlington Northern* opinion that will provide specific guidance.[175] Both *General Electric* and *Appleton Papers* pointed to the fact-intensive analysis, and this seems to be a critical point regardless of jurisdiction.[176] The best way to avoid CERCLA arranger liability seems to be to point to facts consistent with *Burlington Northern* or perhaps point to the fact that the defendant had no knowledge of spills.

V. CONCLUSION

The Supreme Court's decision in *Burlington Northern* is problematic on two levels. First, *Burlington Northern* contains language that can be read to narrow the category of arranger liability.[177] This has resulted in some courts reading that language to reduce the ability of plaintiffs to hold parties liable under CERCLA.[178] It is clear from past cases that many federal courts have consistently interpreted CERCLA arranger liability broadly.[179] The key question is whether *Burlington Northern* marks a narrowing in the Court's interpretation of CERCLA or whether decisions like *General Electric* were what the Court actually envisioned.

This leads to the second problem with the *Burlington Northern* decision: it is apparent from the comparison of *General Electric* and *Appleton Papers* that *Burlington Northern* has caused confusion among lower courts. The area of arranger liability, instead of being clearer post-*Burlington Northern*, remains muddled and uncertain. Nevertheless, there are broad guidelines to follow and important aspects to consider when a practitioner undertakes a case of potential arranger liability. These guidelines and considerations provide some guidance in navigating arranger liability.

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174 Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 610 (2009).

175 *See generally id.* at 599.

176 *Gen. Elec. Co.*, 670 F.3d at 384; Appleton Papers Inc. v. George A. Whiting Paper Co., 776 F.Supp.2d 857, 863–64 (E.D. Wis. 2011), *on reconsideration*, No. 08-C-16, 2011 WL 2633332 (E.D. Wis. July 5, 2011) *and opinion clarified*, No. 08-C-16, 2011 WL 4585343 (E.D. Wis. Sept. 30, 2011) *and aff'd in part, vacated in part*, NCR Corp. v. George A. Whiting Paper Co., 768 F.3d 682 (7th Cir. 2014).

177 *See supra* Part IV.B.

178 *See supra* Part IV.B.

179 *See supra* Part I.

DEVELOPMENTS

AIR QUALITY

EPA's PROPOSED OZONE STANDARDS AND TEXAS' REACTION

On November 25, 2014, the Environmental Protection Agency (EPA) issued a proposal to change the National Ambient Air Quality Standards (NAAQS) for ground level ozone.[1] The proposed changes are intended to promote public health, and in particular the health of vulnerable groups such as children and the elderly.[2] The EPA anticipates that the changes will also improve the condition of tree, plant, and ecosystem protection.[3] This article addresses the EPA's basis for the proposal, the proposed changes, and Texas's reaction to the proposed new rules.

PROPOSED CHANGES

The EPA proposes to lower both the primary standard and the secondary standard, while retaining the current form and averaging time. The current form and averaging time is the 8-hour standard, averaged over three years.[4] An area would meet the primary standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, does not exceed the standard.[5]

Primary air quality standards must be set at rates needed to protect the public health with an "adequate margin of safety."[6] Currently, the standard is set at 75 parts per billion (ppb).[7] The EPA proposes to strengthen this standard by setting it between 65 and 70 ppb, based on its finding that the current standard is insufficient to protect the public health.[8] The EPA is also taking comments on a standard as low as 60 ppb, but the

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1 ENVTL. PROT. AGENCY, Overview of EPA's Proposal to Update the Air Quality Standards for Ground-Level Ozone 1 (2014) [hereinafter *Overview*], *available at* http://www.epa.gov/glo/pdfs/20141125fs-overview.pdf, *archived at* http://perma.cc/R99N-B3TL.

2 *Id.*; Envtl. Prot. Agency, *Regulatory Actions: Ground-Level Ozone*, EPA.GOV (last visited Feb. 17, 2015), http://www.epa.gov/groundlevelozone/actions.html, *archived at* http://perma.cc/9NAH-KG6D.

3 *Overview*, *supra* note 1, at 1.

4 ENVTL. PROT. AGENCY, Proposed Updates to the Air Quality Standards for Ground-Level Ozone: Information About Proposed Primary and Secondary Standards, and Updates to the Air Quality Index (AQUI) 2 (last visited Apr. 2, 2015) [hereinafter *Information*], *available at* http://www.epa.gov/groundlevelozone/pdfs/20141125fs-aqi.pdf, *archived at* http://perma.cc/62KB-KGQH.

5 *Id.*

6 42 U.S.C. § 7409(b)(1) (West 2014).

7 *Id.* § 7409(b)(2).

8 National Ambient Air Quality Standards for Ozone, 79 Fed. Reg. 75,236, 75,245 (proposed Dec. 17, 2014) (to be codified at 40 C.F.R. pts. 50, 51, 52, 53, and 58).

agency is uncertain as to the efficacy of the standards to provide benefits beyond what it anticipates can be attained in the proposed range.[9]

Secondary standards for air quality must be established to protect the public welfare. Like the primary standard, the current secondary standard is set at 75 ppb.[10]

The EPA proposes a two-prong approach to the secondary standards; first, define the target level of protection, and second, set a standard to meet that protection level.[11] To define the necessary protection level of the secondary standard the EPA proposes defining protection in terms of the "W126 Index," which is a seasonal index used to assess the impact of ozone on ecosystems and vegetation.[12] The proposed protection would be 13 to 17 ppm-hours averaged over three years.[13] To achieve this, the EPA has proposed an 8-hour secondary standard to be set between 65 and 70 ppb.[14] The proposed change to the secondary standard is in response to studies indicating that ozone exposure reduces growth and has other negative impacts on trees and plants.[15] These impacts could have the potential to harm ecosystems and diminish the benefits that plants and trees provide.[16]

Monitoring requirements would also be changed. Under the proposal the ozone monitoring system for 33 states would be extended to match the times of the year when ozone approaches unhealthy levels and to alert the public.[17] North Texas's ozone monitoring system requirements would be extended one additional month.[18] The agency seeks to update the Photochemical Assessment Monitoring Stations, the Federal Reference Methods and the Air Quality Index to reflect the changes and increase efficiency.[19]

Regarding New Source Review, the EPA proposes to grandfather in preconstruction permitting applications that have made substantial progress through the permitting process by the time the final standards are issued.[20] Permits would be grandfathered in if one of the following has occurred: the permitting agency has formally declared the permit complete by the time the rules would be signed; public notice has been given for the preliminary permit or determination prior to the date the rules become effective; or, the permit seeker has already completed most or all of the analytical work required for the permit by the time the rule is either signed or becomes effective.[21]

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9 *Overview*, *supra* note 1, at 3.
10 *Id.*.
11 *Information*, *supra* note 4, at 2.
12 *Id.* at 2-3.
13 *Id.* at 3.
14 *Id.*
15 *Overview*, *supra* note 1, at 3.
16 *Id.*
17 *Overview*, *supra* note 1, at 5.
18 National Ambient Air Quality Standards for Ozone, 79 Fed. Reg. 75,236, 75,245 (proposed Dec. 17, 2014) (to be codified at 40 C.F.R. pts. 50, 51, 52, 53, and 58).
19 *Overview*, *supra* note 1, at 5.
20 ENVTL. PROT. AGENCY, Overview of EPA's Proposal to Update the Air Quality Standards for Ground-Level Ozone: Designations, Monitoring and Permitting Requirements 6 (2014) [hereinafter *Designations, Monitoring and Permitting*], *available at* http://www.epa.gov/groundlevelozone/pdfs/20141125fs-requirements.pdf, *archived at* http://perma.cc/Z253-TLY2.
21 *Id.*

The EPA's Basis for the Proposal

Based on over 1,000 scientific studies, the EPA concluded that ozone levels are still causing negative impacts on human health.[22] The EPA reviewed the research using a formal framework to characterize the strength of the evidence, including controlled human exposure studies.[23] The evidence led the EPA to believe that ozone levels are contributing to substantial health problems, especially for those individuals with asthma.[24] In addition to health concerns, the EPA found the data showed ozone is interfering with the health of trees and plants.[25]

In the proposal, California is evaluated apart from the rest of the United States due to unique characteristics that makes the EPA believe exclusion from the standard timeline for compliance is appropriate.[26] California is not factored into the national benefits prior to 2025, but instead has separate estimates.[27] After 2025, the estimates for the nation will include those estimates for California.[28]

EPA estimates that meeting the proposed standards would provide health benefits valued between $6.4 and $13 billion annually in 2025 for a standard set at 70 ppb.[29] If the standard is lowered to 65 ppb, the EPA estimates the health benefits would be between $19 and $38 billion annually in 2025.[30] Post-2025, California would be factored into the estimates, which would increase estimated benefits to between $1.1 and $2 billion annually for a standard of 70 ppb, and between $2.2 and $4.1 billion for a standard of 65 ppb.[31] The estimated costs nationwide in 2025, excluding California, are $3.9 billion for a standard of 70 ppb, and $15 billion if the standard is set at 65 ppb.[32]

The EPA anticipates health benefits that would include decreases in premature death, acute bronchitis in children, asthma-related emergency room visits, and asthma attacks.[33] Additionally, the agency anticipates that people would miss fewer days of school and work.[34]

Regions in the respective states would be re-designated as in attainment, nonattainment, or unclassifiable by October 2017.[35] The designations would likely be based on the air quality data available for 2014-2016.[36] Based on the ozone levels in the area, states with nonattainment areas would have until between 2020 and 2037 to reach attainment for the primary standards; the deadlines to meet the secondary ozone standards

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22 *Id.*
23 National Ambient Air Quality Standards for Ozone, 79 Fed. Reg. 75,236, 75,245 (proposed Dec. 17, 2014) (to be codified at 40 C.F.R. pts. 50, 51, 52, 53, and 58).
24 *Overview*, *supra* note 1, at 2
25 *Id.*
26 *Id.* at 4.
27 *See id.* at 3.
28 *See id.*
29 *Id.* at 1-2.
30 *Id.* at 2.
31 *Id.*
32 *Id.*
33 *Id.* at 6-7.
34 *Id.*
35 *Designations, Monitoring and Permitting*, *supra* note 20.
36 *Overview*, *supra* note 1, at 5.

would be set during the implementation planning process.[37] States would be given time to develop plans to meet the standards, including State Implementations Plans (SIPs).[38]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S POLICY POSITION

The Texas Commission on Environmental Quality (TCEQ) opposed the EPA's proposed rule, as it stated in a press release published on its website the day after the proposed rule was issued.[39] The TCEQ recognizes and supports setting the standards at a level adequate to protect human health and welfare based on the best available scientific information, but criticized the rule's scientific basis, proposed changes, and costs.[40]

The TCEQ expressed concern over the application and interpretations of the scientific materials during the EPA's development of the rule. This concern was based on EPA data and modeling that runs contrary to the conclusions of the proposed rule.[41] To support this proposition, the TCEQ referenced an EPA model that predicted an increase in mortality in twelve areas around the country, including Houston and Los Angeles, if ozone levels were decreased.[42] The TCEQ was also concerned with the epidemiology studies the EPA used as a basis for the proposed standard, which the TCEQ contends did not give consideration to personal exposure to ozone.[43] Dr. Michael Honeycutt, the Director of the TCEQ Toxicology Division, also expressed concern over the quantity of evidence to support the new standards, because only one of the twelve studies the EPA used indicated long-term exposure to ozone causes mortality.[44] He noted that the single study supporting this argument did not indicate higher mortality in Southern California, an area that has some of the highest ozone levels in the country.[45]

Additionally, the TCEQ stated that clinical ozone exposure studies do not show a clinically adverse effect that would meet the EPA's definition of that term below the current standard of 75 ppb.[46] "The science is clear that increases in asthma incidences are inverse to actual ozone concentrations," TCEQ Commissioner Zak Covar said.[47] "We are missing an opportunity to work with the EPA to research and actually determine the real causes of asthma."[48] Dr. Honeycutt contends that, if asthma is actually tied to ozone, instances of asthma should be decreasing, not increasing.[49] He based this con-

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37 *Id.*

38 *Id.*; *Designations, Monitoring and Permitting*, *supra* note 35, at 1.

39 Press Release, Tex. Comm'n On Envtl. Quality, TCEQ Opposes New EPA Ozone Standards Proposal (Nov. 26, 2014) [hereinafter *TCEQ*] *available at* http://www.tceq.state.tx.us/news/releases/11-26opposeozone, *archived at* http://perma.cc/D5VV-HBL8.

40 *Id.*

41 Dr. Michael Honeycutt, TEX. COMM'N. ENVTL. QUALITY, *Will EPA's Proposed New Ozone Standards Provide Measurable Health Benefits?* (Oct. 2014), https://www.tceq.texas.gov/publications/pd/020/2014/will-epas-proposed-new-ozone-standards-provide-measurable-health-benefits, *archived at* https://perma.cc/HPL4-VQW6.

42 *TCEQ*, *supra* note 39.

43 *Id.*

44 Honeycutt, *supra* note 41.

45 *Id.*

46 *TCEQ*, *supra* note 39.

47 *Id.*

48 *Id.*

49 Honeycutt, *supra* note 41.

tention on evidence that asthma diagnosis is increasing even though air quality is improving and on Texas data reporting that most hospital admissions for asthma occur in winter when ozone levels are lowest.[50]

TCEQ also critiqued the air quality standards range being offered by the EPA for public comment.[51] TCEQ argues that the standards lack certainty and that offering a range of standards fails to represent the best available science.[52] TCEQ Commissioner Toby Baker said the standards are consequently "arbitrary."[53] Additionally, Dr. Honeycutt argued that the proposed changes do not represent real-world exposure.[54] The proposed standards only address outdoor ozone levels and not indoor levels, where people spend up to 90% of their time.[55]

The press release cited a study by NERA Economic Consulting, which found that an NAAQS standard set at 60 ppb could have a total compliance cost of over $2 trillion and diminish gross domestic product by up to $270 million per year.[56] All but three areas in Texas that have a regulatory ozone monitor are over 65 ppb. The TCEQ stated that a final ozone NAAQS of 70 ppb could potentially impact many areas of Texas.[57]

The comment period for the proposed rule closed on March 17, 2015.[58] Three public hearings will be held.[59] The EPA expects to issue a final decision by October 1, 2015.[60]

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NATURAL RESOURCES

TEXAS RAILROAD COMMISSION ADOPTS SEISMICITY RULES FOR DISPOSAL WELLS

BACKGROUND

Recently, the Railroad Commission of Texas (RRC or "Commission") adopted amendments to portions of its rules governing disposal wells to "incorporate require-

50 *Id.*
51 *TCEQ*, *supra* note 39.
52 *Id.*
53 *See id.*
54 Honeycutt, *supra* note 41.
55 *Id.*
56 *Id.*
57 *Id.*
58 *Overview*, *supra* note 1, at 2.
59 *Id.*
60 *Id.*

ments related to seismic events."[1] These amendments are motivated by growing concern that hydraulic fracturing and related activities are responsible for the earthquakes rocking northern Texas and other parts of the country through a process dubbed "induced seismicity."[2] Over the past several years, Texas has experienced a marked increase in seismic activity.[3] Areas once thought to be stable have been subject to an unprecedented number of minor earthquakes, including over fifty in the Dallas-Ft. Worth area since 2008.[4] Further north, in and around the heavily exploited Barnett Shale region, the United States Geological Survey (USGS) measured over 300 earthquakes in 2014 alone.[5] Thankfully, most of these quakes are minor, registering at 2.0 to 3.0 in magnitude and rarely cause significant property damage.[6] On occasion, however, the quakes can be more severe, like the 5.7 magnitude quake in Oklahoma that destroyed several homes and injured two people in 2011.[7]

The scientific community has reached a consensus that some of the nationwide increase in seismic activity is related to underground injection and disposal of wastewater from the oil and gas production process.[8] Despite this consensus, extensive research often over a period of several years is required to link specific seismic events with a specific well or set of wells. It was not until 2010 that researchers at Southern Methodist University and The University of Texas at Austin published a study connecting the Dallas-Ft.

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1 39 TEX. REG. 8988 (2014) (codified at 16 TEX. ADMIN. CODE. §§ 3.9, 3.46 (West 2015)) (R.R. Comm'n. of Tex.).

2 David J. Hayes, Deputy Sec'y, U.S. Dep't of the Interior, *Is the Recent Increase in Felt Earthquakes in the Central US Natural or Manmade?* U.S. DEP'T OF THE INTERIOR NEWS (Apr. 11, 2012), http://www.doi.gov/news/doinews/is-the-recent-increase-in-felt-earthquakes-in-the-central-us-natural-or-manmade.cfm, *archived at* http://perma.cc/A7PH-33UM.

3 Kelly Connelly, David Barer, &Yana Skorobogatov, *How Oil and Gas Disposal Wells Can Cause Earthquakes*, STATE IMPACT, NPR, http://stateimpact.npr.org/texas/tag/earthquake/ (last visited Oct. 27, 2014), *archived at* http://perma.cc/LD85-DRQK.

4 *Id*.

5 Renee Lewis, *Texas Mayor Appeals for Fracking Data after Earthquakes Jolt Town*, ALJAZEERA AM. (May 13, 2014, 4:03 PM), http://america.aljazeera.com/articles/2014/5/13/texas-fracking-earthquakes.html, *archived at* http://perma.cc/3LQD-RCE2.

6 Connelly, Barer, & Skorobogatov, *supra* note 3.

7 Zain Shauk, *Fracking Fears Grow as Oklahoma Hit by More Earthquakes Than California*, BLOOMBERG (Jul. 7, 2014), http://www.bloomberg.com/news/2014-07-07/oklahoma-temblors-outpace-california-as-fracking-booms.html, *archived at* http://perma.cc/Z8G4-M5YA.

8 Murray W. Hitzman et al., Comm. on Induced Seismicity Potential in Energy Techs., NAT'L ACAD. OF SCI. INDUCED SEISMICITY POTENTIAL IN ENERGY TECHNOLOGIES - Brief, (2012), *available at* http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/Induced-Seismicity-Report-Brief-Final.pdf, *archived at* http://perma.cc/5KZB-GKEL; *see also* Max Baker, *State Agency OKs New Rules for Injection Wells*, STAR-TELEGRAM (Aug. 12, 2014), http://www.star-telegram.com/2014/08/12/6037332/railroad-commission-publishes.html, *archived at* http://perma.cc/L3UM-K58M; Williams Ellsworth, Jessica Robertson, Christopher Hook, *Man-Made Earthquakes Update*, U.S. GEOLOGICAL SURVEY (Jan. 17, 2014, 2:03 PM), http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/, *archived at* http://perma.cc/K7J3-D9U7; Mose Buchelle, *UPDATED: Four Earthquakes Rattled Texas Last Week, Another on Sunday*, STATEIMPACT, NPR (Sept. 12, 2014 1:44 PM), http://stateimpact.npr.org/texas/2014/09/12/three-earthquakes-rattle-texas-so-far-this-week/, *archived at* http://perma.cc/Q2FV-GUHS.

Worth quakes of 2008 and 2009 with a disposal well located near a fault line.[9] Officials in several states, including Arkansas, Colorado, and Ohio, have linked disposal wells to earthquakes and responded with seismicity-focused regulation.[10] Finally, in April of 2015, Southern Methodist University published another study that ultimately determined that wastewater injection linked to oil and gas activity likely promotes seismic activity, although some uncertainties still remain.[11]

Ohio has enacted one of the more demanding regulatory schemes. There, any new horizontal drilling within three miles of a fault or seismic activity above a 2.0 magnitude requires the placement of a sensitive seismic monitor.[12] Upon detection of any seismic activity above a 1.0 magnitude, activity is paused for investigation.[13] If that investigation reveals a probable connection between oil and gas operations and seismic activity, operations are suspended indefinitely.[14]

While calls for similarly-focused regulations in Texas have persisted for years, the urgency was renewed in 2014 when a series of earthquakes near the Texas cities of Reno and Azle captured national attention.[15] Though officials there have not established a "definitive link" between disposal wells and seismic activity, the RRC has begun to address the issue by hiring a seismologist, Dr. David Craig Pearson, to investigate a possible connection and by proposing and ultimately adopting amendments to its rules.[16]

Proposed Amendments

Information gathering has been one of the stumbling blocks in determining the cause of increased seismicity. Until the amendments were adopted, permit holders were required to monitor injection rates and wellhead injection pressures on a monthly basis and report that information to the RRC annually.[17] In the wake of the Azle quakes, the RRC requested several oil and gas operators to voluntarily submit a variety of information to assist in their research, including daily pressure and injection data.[18] Correspond-

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9 Jim Fuquay, *Researchers Say Finding Cause of Azle Quakes Will Take Time*, Star-Telegram (Feb. 7, 2014), http://www.star-telegram.com/2014/02/07/5550415/smu-researchers-say-azle-quakes.html, *archived at* http://perma.cc/73WR-W69R.

10 Baker, *supra* note 8.

11 Matthew J. Hornbach et al., *Causal Factors for Seismicity Near Azle, Texas*, Nature Communications (Apr. 2015), http://www.nature.com/ncomms/2015/150421/ncomms7728/pdf/ncomms7728.pdf, *archived at* http://perma.cc/2LGZ-8TUU.

12 Ohio Dept. of Nat. Res., *Ohio Announces Tougher Permit Conditions for Drilling Activities Near Faults and Areas of Seismic Activity* (Apr. 11, 2014), http://ohiodnr.gov/news/post/ohio-announces-tougher-permit-conditions-for-drilling-activities-near-faults-and-areas-of-seismic-activity, *archived at* http://perma.cc/Z8EF-7XJG.

13 *Id.*

14 *Id.*

15 Rick Jervis, *Fracking Wells Possible Culprit of Texas Earthquakes*, USA Today (June 1, 2014, 11:36 AM), http://www.usatoday.com/story/news/nation/2014/06/01/earthquakes-texas-fracking-wells/9765659/, *archived at* http://perma.cc/N8K8-LPJG.

16 Baker, *supra* note 8.

17 16 Tex. Admin. Code § 3.9(11) (West 2015).

18 Letter from Milton Rister, Exec. Dir., R.R. Comm'n of Tex., to Barnett Envtl. Mgmt. Servs., L.L.C., Bridgeport Tank Trucks, L.L.C., Devon Energy Prod. Co., L.P., Enervest Operating, L.L.C., Finley Res., Inc., Foxborough Energy Co., L.L.C., XTO Energy (May 6,

ingly, the proposed amendments allowed the RRC to require more frequent monitoring and reporting of injection pressures and rates.[19]

The proposed amendments to the Commission's rules 3.9 and 3.46, which address the permitting process for waste disposal wells, also added new requirements related to seismicity. Under the proposed amendments, new permit applications would require review and inclusion of information from the USGS "regarding the locations of any historical seismic events within the estimated radius of the ten-year, five pounds per square inch (psi) pressure front boundary of the proposed disposal well location."[20] Additionally, in areas deemed to be of increased risk of seismic events, including areas with complex geology or a history of such seismic events, the Commission may require "additional information, such as logs, geologic cross-sections, and/or structure maps" to accompany the permit application.[21]

The proposed amendments also gave the RRC the authority to "modify, suspend, or terminate" a permit if the injection is suspected or shown to be causing seismic activity.[22] This process would require notice, with opportunity for a hearing.[23]

PUBLIC COMMENTS

When proposed, the amendments drew a range of comments, from environmental advocates calling for the complete cessation of fracking to oil and gas operators who find the rules overly burdensome.[24] The most common criticism concerned the ten-year, five-psi pressure front boundary. As a complicated, non-standard measurement with many variables, some argue that this invites the risk of incorrect or conflicting estimations.[25]

2014), *available at* http://www.rrc.state.tx.us/media/20661/operator-letters-5-6-14.pdf, *archived at* http://perma.cc/S8HW-LT7Q.

19 39 TEX. REG. 6775 (2014) (codified as an amendment to 16 TEX. ADMIN. CODE §§ 3.9, 3.46) (adopted November 14, 2014) (R.R. Comm'n. of Tex.).

20 *Id*.

21 *Id*.

22 *Id*.

23 *Id*.

24 E-mail from Ian Anderson to R.R. Comm'n of Tex. (Sept. 17, 2014, 10:12 AM), *available at* http://www.rrc.state.tx.us/media/23651/comments-3-9-and-3-46-seismic-august2014-anderson-rd.pdf, *archived at* http://perma.cc/AP9G-BZU9 (comments relating to opposition to proposed rule); E-mail from Mollie Schall to R.R. Comm'n of Tex. (Sept. 29, 2014, 2:59 PM), *available at* http://www.rrc.state.tx.us/media/24202/comments-3-9-and-3-46-seismic-august2014-apache-late-rd.pdf, *archived at* http://perma.cc/V9KK-SYPL (opposing the generic application of the rules to all operators).

25 E-mail from Mark A. Miller to R.R. Comm'n of Tex. (Aug. 17, 2014, 5:34 PM), *available at* http://www.rrc.state.tx.us/media/22945/comments-3-9-and-3-46-seismic-august2014-miller.pdf, *archived at* http://perma.cc/F4T3-KNMQ (criticizing the ten-year, five-psi pressure front boundary); E-mail from Gretchen Kern, Sr. Reg. & Envtl. Policy Advisor, Pioneer Nat. Res., to R.R. Comm'n of Tex. (Sept. 29, 2014, 11:04 AM), *available at* http://www.rrc.state.tx.us/media/24185/comments-3-9-and-3-46-seismic-august2014-pioneer.pdf, *archived at* http://perma.cc/Z8PU-VKC9 (same); E-mail from Rosetta Douthitt, Office Adm'r, Prairielands Groundwater Conservation Dist., to R.R. Comm'n of Tex. (Sept. 29, 2014, 10:56 AM), *available at* http://www.rrc.state.tx.us/media/24187/comments-3-9-and-3-46-seismic-august2014-prairielandsgcd.pdf, *archived at* http://perma.cc/DN6K-LTR8 (same);

For example, an entity applying for a new permit could make the calculation with best-case numbers while an entity challenging the application could make the calculation with worst-case numbers, complicating the hearing process.[26]

In gathering information, the Commission heavily relied on publicly-available data from the USGS, which it describes as the "*de facto* source of seismic event location in the United States," capable of detecting "all seismic events larger than magnitude 2.0."[27] A response from the USGS indicates that the Commission has "overstate[d] the present and historic capabilities . . . for monitoring earthquakes in the State of Texas."[28] The USGS notes that Texas has relatively sparse monitoring capacity. In many areas, measurements can only be taken for quakes above a 3.0 magnitude.[29] And even after detection, the measurement has limited capacity to account for location, with location uncertainties in some areas extending as far as ten to twenty kilometers.[30] Historical data is even less accurate, with a forty- to fifty-kilometer location uncertainty between 1970 and 1999.[31] This uncertainty would likely make the newly-required information less useful to the Commission and much more open to interpretation.

Response to Comments and Adopted Amendments

Changes to the proposed amendments prior to adoption demonstrate that the Commission took the many comments into account.[32] In lieu of the "ten-year, five pounds per square inch (psi) pressure front boundary" calculation, the adopted rules require "the results of a survey review of information from the [USGS] regarding the locations of any historical seismic events within a circular area of 100 square miles (a circle with a radius of 9.08 kilometers) centered around the proposed disposal well location."[33] The switch to a "simpler and more consistent method of determining the area to be surveyed" addresses one of the primary concerns expressed in comments, though pressure front boundary information may still be required in cases in which the survey results suggest an increased risk of fluids escaping the injection interval.[34]

The Commission also strengthened the language regarding modification, suspension, or termination of a permit, replacing "if injection is suspected or shown to be causing seismic activity" with "if injection is likely to be or determined to be causing seismic

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E-mail from Michael Overbay, Reg'l Ground Water Cent. Coordinator, Envtl. Prot. Agency Region 6, to R.R. Comm'n of Tex. (Sept. 17, 2014, 2:17 PM) *available at* http://www.rrc.state.tx.us/media/23652/comments-3-9-and-3-46-seismic-august2014-epa.pdf, *archived at* http://perma.cc/GK6X-SVRP (same).

26 *See, e.g.*, E-mail from Rosetta Douthitt, *supra* note 25.

27 39 Tex. Reg. 6775 (2014) (codified as an amendment to 16 Tex. Admin. Code. §§ 3.9, 3.46 (West 2015)) (adopted November 14, 2014) (R.R. Comm'n. of Tex.).

28 E-mail from Bill Leith, U.S. Geological Survey, to R.R. Comm'n of Tex. (Sept. 25, 2014, 1:04 PM), *available at* http://www.rrc.state.tx.us/media/23944/comments-3-9-and-3-46-seismic-august2014-usgs.pdf, *archived at* http://perma.cc/65BG-JHRB.

29 *Id.*

30 *Id.*

31 *Id.*

32 39 Tex. Reg. 8989 (2014) (adopted Nov. 14, 2014) (codified as an amendment to 16 Tex. Admin. Code §§ 3.9 and 3.46) (R.R. Comm'n of Tex.).

33 *Id.*

34 *Id.*

activity."[35] While still open to interpretation, this change is in line with statements from Dr. Pearson, and shows that this is not a power the Commission intends to use lightly.[36]

CONCLUSION

The adoption of these amendments, along with the hiring of Dr. Pearson, demonstrates that the Commission is serious about addressing concerns of induced seismicity. While the adopted amendments are a necessary early step in that process, they are mostly concerned with gathering information. It remains to be seen what that information will show, and how the Commission will use it.

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SOLID WASTE

EPA ISSUES FINAL RULE ON COAL ASH DISPOSAL

On December 19, 2014, the U.S. Environmental Protection Agency (EPA) released its final rule establishing regulations for disposal of coal combustion residuals (CCRs), commonly known as coal ash, and submitted the rule for publication in the Federal Register. The rule establishes technical requirements for CCR landfills and surface impoundments under Subtitle D of the Resource Conservation and Recovery Act (RCRA).[1] The purpose of this rule is to reduce the risk of structural failure, protect groundwater, ensure good recordkeeping, and ensure compliance with notification and posting requirements.[2]

The EPA's decision to regulate the disposal of CCRs stems from a large coal ash spill at the Tennessee Valley Authority (TVA) power plant in Kingston, Tennessee, in December of 2008.[3] This coal ash spill extended over 300 acres and flooded the Emory and Clinch rivers with fly ash, and the EPA later determined that this ash contaminated the area with heavy metals above acceptable threshold levels.[4] This incident led to the launch of the EPA's Coal Ash Surface Impoundment Integrity Assessment Program,

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35 *Id.*

36 *Id.*

1 42 U.S.C. § 6907 (West 2014); *see generally* 40 C.F.R. §§ 191.01-.05 (West 2015).

2 *2014 Final Rule: Disposal of Coal Ash Residuals from Electric Utilities*, ENVTL. PROT. AGENCY, http://www2.epa.gov/coalash/coal-ash-rule (last visited Apr. 2, 2015), *archived at* http://perma.cc/3WY9-UNS5.

3 *Region 4: EPA's Response to the TVA Kingston Fossil Plant Fly Ash Release*, ENVTL. PROT. AGENCY, http://www.epa.gov/region04/kingston/basic.html (last visited Apr. 2, 2015), *archived* at http://perma.cc/L4SN-RGSR.

4 *Id.*

which gathered data on the safety of coal ash at over 200 power plants nationwide.[5] On June 21, 2010, the EPA proposed federal regulations under RCRA as a result of this program to address the hazards posed by the disposal of CCRs generated by power plants.[6] This regulation proposed two alternatives: regulating CCRs under Subtitle C of RCRA, which applies to hazardous or special wastes meant for disposal in landfills or surface impoundments, or regulating CCRs under Subtitle D, which applies to non-hazardous wastes and contains national minimum criteria.[7] After soliciting comments, the EPA chose to regulate CCRs under Subtitle D.

The final rule clarifies the definition of CCRs to include fly ash, bottom ash, boiler slag, and flue gas desulfurization material. Coal ash contains heavy metals such as mercury, cadmium, and arsenic, all of which are associated with cancer and other serious health effects at certain levels.[8] Based on its Coal Ash Surface Impoundment Integrity Assessment Program, the EPA concluded that, without proper protections, CCRs may leach into groundwater and migrate to drinking water sources, posing significant public health concerns.[9]

The final rule will apply to owners and operators of new and existing landfills and surface impoundments, including off-site facilities that dispose of or manage CCRs created by coal combustion from power plants.[10] The rule also applies to inactive CCR surface impoundments at active power plants if the unit still contains CCR and liquids.[11] The minimum national criteria established by this rule under Subpart D of RCRA include: restrictions on the location of CCR disposal facilities; criteria for liners of the disposal units to prevent CCRs from leaching into surrounding groundwater; requirements for protecting the structural integrity of disposal facilities, including periodic hazard, stability, and safety assessments; operating criteria to prevent entrance of CCRs into the air, run-on controls to prevent entrance of surface water and erosion and run-off controls to prevent releases from the disposal unit; groundwater monitoring to detect the presence of hazardous materials; closure and post-closure care requirements to ensure the long-term safety of the disposal units, and recordkeeping and notification requirements to keep state and tribal authorities informed of the activities at the disposal facility.[12] Existing CCR landfills are not required to retrofit their liners to meet new standards due to the EPA's determination that the risk of disruption and spillage caused by retrofitting

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5 *Frequent Questions on Coal Ash Rule*, ENVTL. PROT. AGENCY, http://www2.epa.gov/coalash/frequent-questions-coal-ash-rule (last visited Apr. 2, 2015), *archived at* http://perma.cc/4SWH-3SAE.

6 Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes, Disposal of Coal Combustion Residuals from Electric Utilities, 75 Fed. Reg. 35,128 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264, 265, 268, 271, and 302).

7 *Id.*

8 *Frequent Questions*, *supra* note 5.

9 *Id.*

10 Docket. No. EPA-HQ-RCRA-2009-0640 (not yet published in the Federal Register) at 9, *available at* http://www2.epa.gov/sites/production/files/2014-12/documents/ccr_finalrule_prepub.pdf, *archived at* http://perma.cc/FNZ7-2SQG [hereinafter "Prepublication Rule"].

11 *Id.*

12 *Id.* at 10-14.

these units is greater than the risk posed by operating these units without liners.[13] Additionally, CCR surface impoundments may remain operational as long as, within one year of the effective date of the rule, they can document that their disposal units are fitted with a liner that meets the criteria outlined by the final rule.[14]

Subtitle D of RCRA establishes a framework for federal, state, and local government cooperation in controlling how facilities manage non-hazardous wastes. The federal government provides overall regulatory direction in establishing minimum nationwide standards for solid waste management functions, but actual implementation of these programs remains a state and local function.[15] Notably, because the final rule is promulgated under RCRA sections 1008(a), 4004(a), and 4005(a), the EPA treats the rule as self-implementing: it does not require federal permits, does not require states to adopt the above requirements, and does not grant the EPA the authority to enforce these requirements.[16] Instead, citizens or states may enforce the requirements of the final rule under RCRA's citizen suit authority, and the states may enforce any state regulation under their independent state enforcement authority.[17]

The final rule does not regulate CCRs that are put to beneficial use. Some examples of beneficial uses include use of CCRs as filler or raw material for concrete, rubber, plastics, and wallboard, in either compressed (encapsulated) or particle (unencapsulated) form.[18] Criteria for the beneficial use exception in the final rule are as follows: the CCR must provide a functional benefit; the CCR must substitute for another material in a way that conserves natural resources that would otherwise be harvested by extraction; the use of the CCR must meet relevant product specifications, regulatory standards, and design standards, if available, and if not available, CCRs must not be used in excess quantities; and when encapsulated use of CCRs involves placement on land of 12,400 tons or more in non-roadway applications, the user of the CCRs must keep records and demonstrate upon request that environmental releases to groundwater, surface water, soil, and air are comparable to or lower than those of non-CCR products, or that such releases will be at or below threshold levels for human receptors.[19] Facilities that meet the above criteria will not be subject to the final rule. Additionally, the final rule does not apply to placement of CCR in active or abandoned coal mines; the EPA and the U.S. Department of the Interior will address the management of CCR in minefills in separate regulatory actions.[20]

The EPA believes that that the benefits of the final rule include prevention of catastrophic failures of coal ash impoundments similar to that at the TVA plant, protection of groundwater from CCR contamination, the reduction of dust in communities near

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13 *Id.* at 247-48.

14 *Id.* at 248. The rule becomes effective six months after publication in the Federal Register.

15 *Id.* at 23-24.

16 *See* 42 U.S.C. §§ 6907, 6944(a), 6945(a).

17 Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35,134, (proposed June 21, 2010) (to be codified at 40 C.F.R., pts. 257, 261, 264, 265, 268, 271 and 302); *see also* 42 U.S.C. § 6972.

18 Prepublication Rule, *supra* note 10, at 87-88.

19 *Frequent Questions*, *supra* note 5; *see also* Prepublication Rule, *supra* note 10, at 167.

20 Prepublication Rule, *supra* note 10, at 137.

CCR disposal facilities, and increases in beneficial use of coal ash.[21] Additional benefits from increased recycling of coal ash, as stated by the EPA, include reduced need to mine and process raw materials as well as energy and greenhouse gas benefits.[22] The EPA also believes that regulating CCR disposal under Subtitle D of RCRA benefits local communities by allowing states to regulate CCR disposal facilities in ways that are attuned to their individual needs.[23] Lastly, the new regulations are projected to save millions of dollars over the next century due to reduced response costs for spillage and groundwater contamination, reduced incidence of cancer and IQ losses, increased protection of endangered species, and increased beneficial use of CCRs.[24] The final rule will become effective six months after its publication in the Federal Register.[25]

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WATER QUALITY

CITY OF LORENA V. BMTP HOLDINGS, L.P., 409 S.W.3D 634 (TEX. 2013)

BACKGROUND

Chapter 212 of the Texas Local Government Code allows municipalities to enact temporary moratoria on property development if the moratoria are necessary to prevent a shortage of essential public facilities.[1] This action is limited by the requirement that the municipality must provide a summary of evidence showing that the moratoria is limited to property that has not been approved for development.[2] The provision at the heart of the dispute in this case is Texas Local Government Code section 212.135(b)(2)(B), which defines "development" as "the construction, . . . of residential or commercial buildings or the subdivision . . . of residential or commercial property."[3]

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21 *Frequent Questions*, *supra* note 5.
22 Prepublication Rule, *supra* note 10, at 416.
23 *Id.* at 469.
24 *Id.* at 574.
25 *2014 Final Rule: Disposal of Coal Ash Residuals from Electric Utilities*, *supra* note 2.
1 TEX. LOC. GOV'T CODE § 212.135(b)(2)(B) (West 2013).
2 *Id.*
3 *Id.* § 212.131(3).

In January 2006, the City Council for the City of Lorena (City) approved the final plat for phase five of South Meadows Estates, a development project of respondent, BMTP Holdings, L.P. (BMTP).[4] BMTP then began building the infrastructure for phase five, and in the midst of construction, engineers retained by the City determined that the demand on the sewage system exceeded its capacity.[5] Accordingly, they recommended a moratorium on further sewer tap permits until additional capacity could be obtained.[6] On June 5, 2006, pursuant to section 212.131 of the Texas Local Government Code, the City responded by enacting a 120-day moratorium on approvals of sewer tap applications.[7] The City Manager then informed BMTP that the moratorium would be enforced against South Meadows Estates.[8]

The City Council voted to extend the moratorium seven times for an additional 120 days each time.[9] During the first extension, BMTP obtained an exemption for fifteen lots in South Meadows Estates that had pending sales contracts prior to the moratorium.[10] However, the company was unsuccessful in getting the extension applied to the remaining seven unsold lots.[11] After the fourth extension went into effect, BMTP renewed its request for an exemption for the seven unsold lots, but was again refused.[12] While the sixth extension was in effect, BMTP filed an action seeking declaratory judgment that the moratorium could not be enforced against its remaining seven lots.[13]

After the seventh and final extension expired, the City adopted a new moratorium in November 2008 that became the moratorium relevant to the case.[14] During the course of the moratorium and its extensions, BMTP continued to market the seven lots for sale, but was unable to garner interest in lots without sewer connections.[15] BMTP claimed the value of the lots fell 83% during the period the moratorium was in effect.[16] Consequently, in February 2009, BMTP amended its petition to include the new moratorium and added a claim for inverse condemnation, asserting that the wrongful application of the moratorium amounted to a regulatory taking.[17]

PROCEDURAL HISTORY

The trial court granted summary judgment in favor of the City on the declaratory judgment and inverse condemnation claims and awarded attorney's fees to the City.[18] The court of appeals reversed on the basis of the language of chapter 212, holding that the moratorium could not apply to BMTP's property because it had been approved for

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4 City of Lorena v. BMTP Holdings, L.P., 409 S.W.3d 634, 638 (Tex. 2013).
5 *Id.*
6 *Id.*
7 *Id.*
8 *Id.*
9 *Id.*
10 *Id.*
11 *Id.*
12 *Id.* at 639.
13 *Id.*
14 *Id.*
15 *Id.*
16 *Id.*
17 *Id.*
18 *Id.*

development prior to the moratorium.[19] The court of appeals remanded the inverse condemnation claim on the ground that the trial court's grant of summary judgment could have been based on its declaratory judgment ruling.[20] The issue of attorney's fees was also remanded so the trial court could determine whether, in light of the court of appeals' holding, the grant of attorney's fees to the City remained equitable and just.[21]

Holding

Affirming the court of appeals, the Texas Supreme Court held that BMTP was entitled to prevail on its declaratory judgment claim because the plain language of chapter 212 barred the City from enforcing its moratorium against BMTP.[22] The court also found that factual disputes regarding the extent of the moratorium's interference with BMTP's use and enjoyment of its property warranted a remand on the inverse condemnation claim.[23] Finally, because of its ruling on the declaratory judgment claim, the court also remanded the issue of attorney's fees for a determination by the trial court as to whether the award remained equitable.[24]

Ripeness Claims

The City first asserted that BMTP's claims were not ripe, but the Texas Supreme Court found all of the City's ripeness assertions regarding the application, appeal, and waiver procedures to be unpersuasive.[25] The court found that the moratorium application process did not give rise to a mandatory requirement that an aggrieved landowner file an application with the City.[26] The moratorium simply provided a process by which the City was to return any applications to the owner unfiled.[27] The City's argument that BMTP's claim was not ripe because they failed to exhaust the moratorium's appeal procedures was also unavailing.[28] The court held that there was no legislative grant of exclusive jurisdiction that would authorize the City to make such final determinations. Nor did the court find that the waiver procedures were a bar to BMTP's claims.[29] The waiver procedure only applied to aggrieved applicants who either "claim[ed] a right obtained under a development agreement" or "provide[ed], at the applicant's expense, the additional capacity to the City's wastewater treatment plant."[30] Because neither situation applied to the developer, BMTP's claims were valid.[31]

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19 *Id.*
20 *Id.*
21 *Id.* at 639–40.
22 *Id.* at 647–48.
23 *Id.* at 648.
24 *Id.*
25 *Id.* at 640–41.
26 *Id.* at 640.
27 *Id.*
28 *Id.*
29 *Id.*
30 *Id.*
31 *Id.*

DECLARATORY JUDGMENT CLAIM

The Texas Supreme Court held that BMTP was entitled to prevail on its declaratory judgment claim because the moratorium could not apply to BMTP's seven lots.[32] Because the City had approved the residential subdivision for the seven lots before the moratorium, the lots constituted "approved development" under chapter 212.[33] To reach this conclusion the court relied on the plain language of section 212.135, which states that a moratorium regarding a shortage of essential public facilities cannot affect approved development.[34]

The City and BMTP each put forth different definitions for what constitutes "approved development" under chapter 212.[35] The City argued that, because development is subdivision "or" construction, it could place a moratorium on construction on property it had approved for subdivision. BMTP contended that, because the statute defined development as "the construction, . . . or the subdivision . . . of residential or commercial property," that the City could not enforce the moratorium on any properties that it had previously approved for either subdivision or construction.[36]

The Texas Supreme Court relied on the legislature's use of the word "or" in the definition of development to conclude that, by such usage, the legislature indicated that the distinct concepts of subdivision and construction were "brought within the singular scope of the term development."[37] The court also asserted that such a definition was consistent with the broader objective of chapter 212, which requires municipalities to confirm that plats conform to plans and ordinances concerning current and future development prior to approval.[38] The City responded that the difference between chapters 212 and 245 of the Texas Local Government Code[39] compel the conclusion that chapter 212 grants municipalities the right to place a moratorium on construction in an approved subdivision.[40] The court was unmoved, stating: "the Legislature can accomplish the same goal with different language."[41] The court further noted that, because the word "or" was used in the definition of development six times, the City's proposed reading would result in a series of twelve subcategories of development subject to a municipality's moratoria.[42] Such a reading, the court reasoned, would "yield a labyrinthine statutory framework" the legislature was unlikely to have intended.[43] The more reasonable reading was that, because the legislature broadly defined development to include all aspects of

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32 *Id.* at 644.
33 *Id.*
34 *Id.* at 641–44; *see* TEX. LOC. GOV'T CODE § 212.135 (West 2013).
35 *BMTP Holdings*, 409 S.W.3d at 642.
36 *Id.*
37 *Id.*
38 *Id.*
39 *Compare* TEX. LOC. GOV'T CODE § 212, *with* § 245 (West 2013) (Chapter 245 collectively defines the various approvals needed for a project as a series of permits, which lead the City to conclude that the Legislature "could have collectively identified property development as a project in chapter 212 as it did in chapter 245 and prohibit moratoria from affecting development that was approved at any stage.").
40 *BMTP Holdings*, 409 S.W.3d at 643.
41 *Id.*
42 *Id.*
43 *Id.*

the process, the moratorium could not be applied to development approved at any point in the process.[44]

Amicus Texas Municipal League claimed that the majority's interpretation would allow developers to insulate themselves from competition and obtain higher profits by delaying developing until municipalities pass moratoria.[45] This contention was also rejected.[46] The court concluded the legislature had already anticipated such a problem in enacting section 245.005, thereby allowing local governments to establish ordinances related to dormant projects.[47] Furthermore, the court pointed out that municipalities could avoid the issue by assessing the impact of development on utilities when approving the development.[48]

Inverse Condemnation Claim

BMTP's inverse condemnation claim was remanded.[49] The Texas Supreme Court concluded that the factual record illustrated there was still dispute regarding the extent of the moratorium's intrusion on BMTP's property under the three *Penn Central* factors.[50]

Economic impact

BMTP used a comparative analysis of market conditions before and appraisal value after the moratorium took effect to argue that the value of its lots dropped by 83% during the moratorium.[51] The City asserted that, because BMTP never lowered the sales price of the lots during the moratorium and BMTP's manager had testified he hoped to sell the lots for $5,000 more after the moratorium than before it took effect, there was no lost value.[52]

Frustration of the Owner's Investment-Backed Expectations

The City argued that, because the South Meadows Estates lots would be some of the only developed lots available in the area after the moratorium was lifted and the manager testified he was expecting to sell the lots for approximately $25,000 each, BMTP's expectations were not frustrated.[53] BMTP responded with testimony from the manager that it was his expectation that he could sell the lots once the subdivision was completed and was unable to do so in spite of interest from potential buyers because of the moratorium.[54]

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44 *Id.*
45 *Id.* at 643–44.
46 *Id.* at 644.
47 *Id.*
48 *Id.*
49 *Id.* at 646.
50 *Id.*
51 *Id.* at 645.
52 *Id.*
53 *Id.*
54 *Id.* at 645–46.

CHARACTER OF THE GOVERNMENT'S ACTION

The court's holding that the November 2008 moratorium could not be enforced, coupled with the fact that the City had also enforced the June 2006 moratorium and its extensions against BMTP, led the court to conclude that the character of the government's actions was also at issue.[55]

ATTORNEY'S FEES

The trial court's award of attorney's fees to the City was remanded to determine if the grant was still equitable and just in light of the court's holding that the moratorium cannot apply to BMTP's lots.[56]

DISSENT (JUSTICE HECHT JOINED BY CHIEF JUSTICE JEFFERSON)

The dissent concluded that sections 212.133 and 212.135 do not prohibit cities from halting development, whether previously approved or not.[57] Their argument focused on the purpose of the statute and the threat to the public posed by the majority's holding.[58] They accused the majority of reading the statute to unfairly attribute to the legislature a preference for development over a municipality's ability to prevent "development run amuck."[59] This, they said, will have the unintended effect of forcing cities to be "very careful, reluctant, even" to approve development, because even if all precautions are taken to ensure adequate utilities, if there is an unexpected event and facilities prove insufficient, then the city will just be "out of luck."[60] Because cities will now be forced to risk either public revenue or public health, the dissent argued the majority's reading of the statute was not a "just or reasonable result" as required by the legislature.[61] The dissent also claimed that the majority's focus on the areas covered by a permissible moratorium was misdirected.[62] They noted that in doing so, the court treats subsections (A) and (B) of section 212.135(b)(2)[63] as conditions that must both be met for a moratorium to apply in an area.[64] Because the majority's interpretation would read subsection (A) out of the statute and "make nonsense of the statute," the dissent argued the majority interpretation was flawed.[65] Relying on the principle that "the specific illustrates or em-

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55 *Id.* at 646.
56 *Id.*
57 *Id.* at 652.
58 *See id.* at 649–53 (Hecht, J., dissenting).
59 *Id.* at 649.
60 *Id.* at 649.
61 *Id.* at 650.
62 *Id.* at 651.
63 *Id.* at 651; TEX. LOC. GOV'T CODE § 212.135(b)(2) requires evidence that the moratorium is "reasonably limited to: (A) areas of the municipality where a shortage of essential public facilities would otherwise occur; and (B) property that has not been approved for development because of the insufficiency of existing essential public facilities."
64 *BMTP Holdings*, 409 S.W.3d at 651 ("The problem with [the majority's] interpretation is that (B) is a complete subset of (A): the areas of town where shortages will occur include every area where development has not been approved because of existing shortages. [Thus, the Court concludes that] because (A) includes areas not in (B), and all areas in (B) are in (A), if both (A) and (B) must be met, then only (B) must be met.") (Hecht, J., dissenting).
65 *Id.*

phasizes an example of the general but does not limit the general,"[66] the dissent concluded that subsection (B) is better read as a specific instance of (A).

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WATER RIGHTS

CITY OF LUBBOCK V. COYOTE LAKE RANCH, LLC, 440 S.W.3D 267 (TEX. APP.—AMARILLO 2014, PET. FILED)

Generally, oil and gas and groundwater are subject to separate regulatory and agency oversight – oil and gas are subject to the authority of the Texas Railroad Commission under the Texas Natural Resources Code and groundwater is subject to the authority of local groundwater conservation districts as prescribed by the Texas Water Code.[1] Despite this differing regulatory treatment, oil and gas and groundwater do share similarities. For example, both are subject to the rule of capture and considered "fugitive" or capable of traveling.[2] The Texas Supreme Court expanded one similarity in *Edwards Aquifer Authority v. Day*, holding that the ownership of groundwater in place is analogous to the ownership of minerals in place.[3] The court, however, refrained from discussing whether other rights and duties between the mineral and surface estate[4] should be extended to groundwater.[5] Recently, the mineral estate's rights to use the surface arose before the Amarillo Court of Appeals in *City of Lubbock v. Coyote Lake Ranch, LLC*.[6]

In November 2014, the City of Lubbock (City) sought an interlocutory appeal from a temporary injunction, claiming the trial court incorrectly relied on the accommodation doctrine— traditionally used to balance the rights of surface and mineral estates in oil

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66 *Id.*

1 *See* TEX. NAT. RES. CODE, Title 3; TEX. WATER CODE §§35.001-36.419 (West 2013).

2 *See Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814, 828-33 (Tex. 2012).

3 *Id.* at 831.

4 *See Ball v. Dillard*, 602 S.W.2d 521, 523 (Tex. 1980) (recognizing a mineral estate as the dominant estate with rights to use the surface); *see also Humble Oil & Refining Co. v. Williams*, 420 S.W.2d 133, 134 (Tex. 1967) (holding a mineral estate owner not liable for damages caused to the surface absent a showing of negligence); *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971) (recognizing that mineral estate owner has a duty to use the surface with due regard to the surface owners use).

5 *See Day*, 369 S.W.2d at 831-32.

6 *City of Lubbock v. Coyote Lake Ranch, LLC*, 440 S.W.3d 267 (Tex. App.—Amarillo 2014, pet. filed).

and gas—in the context of a groundwater estate.[7] The Amarillo Court of Appeals considered whether the *Day* analogy should extend to the relationship and rights existing between a groundwater estate and a surface estate.[8] The case was argued before the court of appeals on May 5, 2014, and the court issued its opinion on July 10, 2014, holding that the accommodation doctrine did not apply to groundwater.[9] The case is now pending appeal to the Supreme Court of Texas, and briefs on the merits have been requested.[10]

FACTUAL BACKGROUND

In 1953, the City of Lubbock purchased groundwater rights from Coyote Lake Ranch's predecessor in ownership, the Purtrell family.[11] Included among the rights purchased was the right of the City to "at any time and location drill water wells and test wells on said lands for the purpose of investigating, exploring, producing, and getting access to percolating and underground water . . . ."[12] In 2012, approximately forty-nine years later, the City exercised its rights, proposed a well plan, and began testing and development.[13] Coyote Lake responded by filing suit, seeking to prohibit the City from further developing its proposed well field plan based on three causes of action: inverse condemnation, breach of contract, and negligence.[14] In November 2013, Coyote Lake applied for a temporary injunction to enjoin the City from proceeding with its proposed well field plan.[15] The trial court granted the temporary injunction in an order signed December 23, 2013.[16]

The trial court's order was silent as to the inverse condemnation, breach of contract, and negligence actions.[17] Despite this, the order, without stating its underlying legal theory, found that Coyote Lake suffered a harm and would suffer further irreparable harm in the future because the City's well field plan caused damage to Coyote Lake, unreasonably interfered with Coyote Lake's current uses, and could be accomplished through reasonable alternative means.[18] Additionally, the court concluded that Coyote Lake would "probably prevail" at trial and, if the City continued carrying out its plan, Coyote Lake would be without adequate relief.[19] In response to the trial court's order, the City filed and perfected an accelerated interlocutory appeal, claiming that the trial court

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7 *Id.* at 270.
8 *Id.* at 271-72.
9 *Id.*
10 Coyote Lake Ranch, LLC v. City of Lubbock, No. 14-0572, Requesting Brief on the Merits (Tex. Jan. 30, 2015), *available at* http://www.search.txcourts.gov/SearchMedia.aspx?MediaVersionID=17b5a62d-85ad-4340-887b-98fd4c050ede&coa=cossup&DT=BRIEFING/MERITS%20REQ.&MediaID=9b5dc12b-e519-4cab-ba36-39403968ba11, *archived at* http://perma.cc/TJZ6-A3A5.
11 *City of Lubbock*, 440 S.W.3d at 269.
12 *Id.*
13 *Id.* at 270
14 *Id.*
15 *Id.*
16 *Id.*
17 *Id.*
18 *Id.*
19 *Id.*

abused its discretion when it ordered the injunction based on a misapplication of the accommodation doctrine.[20]

Court of Appeals' Decision

Reviewing the record, the court of appeals found that the sole principal underlying Coyote Lake's causes of action and the exclusive focus of the trial court's order was the accommodation doctrine.[21] The accommodation doctrine determines the use of the surface estate by balancing the rights of the mineral estate owner and surface owner in the oil and gas context.[22] The doctrine requires: (1) an implied right of the mineral estate to use the surface estate or a dominant-servient relationship; (2) an impaired or precluded existing use by the surface owner due to the mineral estate exercising its implied right; and (3) established reasonable alternatives available to the mineral estate that would permit the surface owner to continue his existing use.[23]

The court then narrowed the scope of its review to whether the accommodation doctrine should be applied in the context of groundwater.[24] The City claimed that the groundwater estate has no implied right to use the surface estate, therefore, cannot be considered a dominant estate, and the accommodation doctrine was inapplicable.[25] In contrast, Coyote Lake claimed that the Texas Supreme Court's decision in *Day*, treating ownership of groundwater in place in the same manner as oil and gas in place, should be extended to allow the application of the accommodation doctrine.

The court of appeals refused to read *Day* to allow it to extend the accommodation doctrine to groundwater. Specifically, based on the court's interpretation of *Day*, the lack of case law applying the accommodation doctrine, and the "dramatic implications" extending the doctrine would have on Texas water law, the court refused to apply the accommodation doctrine in the context of groundwater.[26] The court analyzed the *Day* case and concluded: (1) landowners have a constitutionally compensable interest in groundwater with ownership similar to a mineral estate; (2) the *Day* court did not speak to the implied rights of a severed groundwater estate; (3) the *Day* court did not define the rights and duties that exist between a groundwater and surface estate; (4) oil and gas are regulated under different statutory schemes than groundwater; and (5) because groundwater can be owned in a manner similar to minerals does not mean that the analogy extends to the relationship of rights and duties between groundwater and surface estates.[27]

Petition to the Supreme Court of Texas

In refusing to extend the accommodation doctrine, the Amarillo Court of Appeals called on the Texas Supreme Court and the Texas Legislature to recognize any extension

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20 *Id.*
21 *Id.* at 271-72. ("Simply put, the record does not support any other legal theory upon which the trial court's order can be upheld.").
22 *Id.* at 272.
23 *See id.* at 272 (citing *Getty Oil Co. v. Jones*, 470 S.W.2d 618 (Tex.1971)).
24 *Id.* at 273.
25 *Id.* at 273.
26 *Id.* at 274-75.
27 *Id.*

with such dramatic implications.[28] On September 24, 2014, Coyote Lake petitioned the supreme court for review on three points.[29] First, a severed groundwater estate should be treated the same as a mineral estate in terms of the rights and duties that exist between the surface and severed estates.[30] Second, no matter the context, the accommodation doctrine should generally apply to the rights and duties that exist between owners of severed estates.[31] Finally, specific contract provisions do not necessarily negate application of the doctrine and should not in this case.[32]

The City responded with four points.[33] First, the Texas Supreme Court does not have jurisdiction to hear the case because the Amarillo Court of Appeals' decision was in accordance with Texas jurisprudence and a party cannot petition the Texas Supreme Court for review of a temporary injunction.[34] Second, the accommodation doctrine does not apply in the groundwater context because severing a groundwater estate does not create an implied right to use the surface and never has the accommodation doctrine been applied in the groundwater context.[35] Third, the express terms of the 1953 deed make the accommodation doctrine inapplicable.[36]

Coyote Lake replied, arguing that the Texas Supreme Court has jurisdiction because the court routinely exercises jurisdiction to clarify uncertainty in the law and, alternatively, because the Amarillo Court of Appeals holding is at odds with precedent.[37] Moreover, it argued that the express provisions granting surface use in the deed do not preclude application of the accommodation doctrine.[38]

On January 30, 2015, after the initial round of filings, the Texas Supreme Court requested briefs on the merits.[39] Briefing is underway and a decision by the court on whether to accept the appeal remains pending.[40]

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28 *Id.* ("In light of the dramatic implications it could have in the area of water law in Texas . . . changes in the law should be left to the Texas Supreme Court or the Texas Legislature.").

29 Coyote Lake Ranch, LLC, Petition for Review, Coyote Lake Ranch, LLC v. City of Lubbock (2014), No. 07-14-00006-CV, 2014 WL 4958053 at *17-25.

30 *Id.*

31 *Id.*

32 *Id.*

33 City of Lubbock, Response to Petition for Review, Coyote Lake Ranch, LLC v. City of Lubbock (2014), No. 07-14-00006-CV, 2014 WL 4958053 at *6-19.

34 *Id.*

35 *Id.*

36 *Id.*

37 Coyote Lake Ranch, LLC, Reply in Support of Petition, Coyote Lake Ranch, LLC v. City of Lubbock (2014), No. 07-14-00006-CV, 2014 WL 7331891 at *4-10.

38 *Id.*

39 Request for Brief on the Merits, *supra* note 10.

40 Briefs are available at http://www.search.txcourts.gov/Case.aspx?cn=14-0572&coa=cossup.

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WATER UTILITIES

CITY OF BLUE MOUND V. SW. WATER CO., 449 S.W.3D 678 (TEX. APP.—FORT WORTH 2014, NO PET.)

In *City of Blue Mound v. Southwest Water Co.*, the City of Blue Mound (City) attempted to use its powers of eminent domain to acquire the entire Blue Mound Water and Wastewater utility system from its private owner, Monarch Utilities (a subsidiary of Southwest Water Company).[1] Monarch filed a motion for summary judgment asserting four grounds for summary judgment, namely: (1) there was no statutory authority to condemn an ongoing business; (2) the taking of a certificate of convenience and necessity (CCN) permit required a proceeding before the Texas Commission on Environmental Quality (TCEQ); (3) the City was using eminent domain proceedings in an attempt to regulate water rates; and (4) no public purpose was being met by the City's actions since the City was already being served by a private entity.[2]

The court held that the City was attempting to condemn a "going concern", and Monarch was entitled to compensation.[3] However, because Texas has no statutory provisions for compensating a going concern, the City had no authorization to bring a condemnation suit against Monarch in district court. Monarch's summary judgment was granted on this issue, so the court did not reach whether the other grounds alleged for summary judgment were proper.[4]

Background

Before pursuing eminent domain proceedings, the City Council of Blue Mound approved a resolution allowing the proceedings to go forward against the private utility.[5] The resolution stated that the City wanted to acquire the complete utility, including all real property, fixtures, water rights, and CCNs, "so that the City owns and operates its own water and wastewater utility system."[6] The resolution also included a clause indicating that the City was seeking the eminent domain proceedings because it had been "unable to reach an agreement on the acquisition of the utility . . . ."[7] After the resolu-

1 City of Blue Mound v. Sw. Water Co., 449 S.W.3d 678 (Tex. App.—Corpus Christi 2014, no pet.).
2 *Id.* at 680.
3 *Id.* at 678, 692-93.
4 *Id.* at 693.
5 *Id.* at 682.
6 *Id.*
7 *Id.*

tion was passed, the City filed condemnation proceedings against Monarch in district court.[8]

Monarch objected to a commissioners' award of $2,748,000, claiming that the district court did not have jurisdiction to hear the case and that the City's taking was unauthorized and precluded under Texas law.[9] After Monarch filed its summary judgment motions, the City filed a response and a plea in abatement.[10] The plea was granted to give the City time to seek passage of legislation allowing TCEQ to transfer the utility's CCNs if the City's eminent domain proceedings were successful.[11] After the bill was vetoed,[12] the proceedings were reinstated by the district court and Monarch's summary judgment motions were granted.[13] Southwest Water Company then filed its own summary judgment motion that was also granted.[14]

The Court's Decision

The Fort Worth Court of Appeals explained that, before it could decide whether the taking was authorized, it had to determine what exactly was being taken.[15] Monarch argued that the City was attempting to take over the entire utility as an "ongoing business solely to effectuate a change in ownership," while the City argued that it only wanted to condemn the real property and its fixtures.[16]

The Taking of a "Going Concern"

The court discussed the concept of an ongoing business, also called a "going concern," by explaining that usually businesses are not entitled to have value added in a condemnation proceeding for lost profits of an ongoing business since they are free to do business elsewhere after their property has been taken.[17] However, the Supreme Court of the United States has recognized an exception when a sovereign condemns a privately-owned public utility.[18] By taking a utility under the powers of eminent domain, the sovereign has ensured that it will not have the competition of the former owner.[19] In these instances, the owners are entitled to have value added as a going concern because they cannot pick up and start their business elsewhere.[20]

The City Council resolution became damning evidence against the City on this issue. It clearly stated that the City sought to run the water and wastewater facility itself.[21] The City's pleadings also contained language that cut against its argument that it

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8 *Id.* at 680.
9 *Id.*
10 *Id.* at 681.
11 *Id.* at 680-81; *see* Tex. H.B. 1160, 83rd Leg., R.S. (2013).
12 Veto Message of Gov. Perry, Tex. H.B. 1160, 83rd Leg., R.S. (2013), http://www.lrl.state.tx.us/scanned/vetoes/83/HB1160.pdf, *archived at* http://perma.cc/ER85-BHZY.
13 *City of Blue Mound*, 449 S.W.3d at 681.
14 *Id.*
15 *Id.* at 682.
16 *Id.*
17 *Id.* at 683 (citing State v. Rogers, 772 S.W.2d 559, 562 (Tex. App.—Amarillo 1989, writ denied)).
18 *Id.* at 684 (citing Kimball Laundry Co. v. U.S., 338 U.S. 1, 11-12 (1949)).
19 *Id.*
20 *Id.*
21 *Id.* at 682.

only sought to acquire the land and fixtures of the utility.[22] The court then examined the authority on which the City relied to effectuate the taking.[23] The court held that no authority in Texas allows for the taking of a utility as a going concern; therefore, the City could not condemn the system.[24] Because this lack of condemnation authority was a meritorious argument for purposes of summary judgment, the court declined to address the other issues the City raised.[25]

In early January 2015, the City reached agreement with Monarch to purchase the utility for $5.9 million, to be paid over 25 years.[26] The transfer will need to be approved by the Texas Public Utility Commission, and is expected to close by early 2016.

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WASHINGTON UPDATE

THE EPA'S CLEAN POWER PLAN

In June 2014, the United States Environmental Protection Agency (EPA) proposed the "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," or what is commonly known as the "Clean Power Plan."[1]

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22 *See id.* at 680 ("The petition alleged that the City sought to condemn and acquire the Blue Mound Water and Wastewater System with all rights of possession and access, free and clear of any encumbrances or restrictions which may burden the utility system *so that the City may own and operate its own water and wastewater utility system that will serve residential and commercial customers in Blue Mound*.") (emphasis added).

23 *Id.* at 687.

24 *Id.* at 687, 678.

25 *Id.*

26 Elizabeth Campbell, *Blue Mound council votes to buy water system*, FT. WORTH STAR-TELEGRAM, Jan. 6, 2015, http://www.star-telegram.com/news/local/community/article5527803.html, *archived at* http://perma.cc/5CRW-XAWJ

1 Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (proposed June 18, 2014) (to be codified at 40 C.F.R. pt. 60) [hereinafter *Carbon Pollution Emission Guidelines*]. The EPA issued a supplemental proposal in October 2014, and expects to issue final rules in the summer of 2015. For a comprehensive timeline of the EPA's actions, *see* KEY DATES, Cutting Carbon Pollution From Power Plants, ENVT'L PROT. AGENCY (Jan. 2015) [hereinafter *KEY DATES*], http://www2.epa.gov/sites/production/files/2015-01/documents/20150107fs-key-dates.pdf, *archived at* http://perma.cc/YVV7-DYM5.

Described as a "game changer,"[2] the EPA has touted "climate and health" benefits ranging from $48 billion to $93 billion and the potential to prevent up to 6,000 premature deaths.[3] However, out of a fear of lost jobs, the coal industry and lawmakers from coal-mining states have strongly opposed the plan.[4] Arguing the plan will raise electricity prices and cost of doing business, business organizations have also joined the lobby against the proposed rule.[5] Environmental groups and industry set to benefit from stringent greenhouse gas (GHG) emissions limits, such as operators of natural gas or nuclear-powered plants, have also joined this so-called "Super Bowl of climate politics."[6] Beyond its political and policy implications, the EPA already finds itself defending the legal basis for the proposed plan in federal court.[7] This article provides an overview of the proposed rule, the legal history that planted the seed for the Clean Power Plan, and seeks to describe the EPA's current asserted authority under the Clean Air Act (CAA or "Act") section 111(d), for the Clean Power Plan as the agency approaches its unveiling of the final rule and what will surely be a continued string of political and legal challenges.

AN OVERVIEW OF THE PROPOSED CLEAN POWER PLAN RULE

With its Clean Power Plan Rule, the EPA has proposed guidelines for GHG emissions to serve as a guiding light for states to develop plans to mitigate such emissions.[8] Hoping to capitalize on innovations in the utility industry, the EPA believes the rule can reduce by 2030 GHG emissions by approximately thirty percent from their 2005 levels while simultaneously, the EPA claims, "maintaining the reliability and affordability of electricity in the United States."[9] Recognizing the unique circumstances and needs in particular regions and states, the proposal is designed to allow flexibility in the way states implement the new rules.[10] As proposed, the Clean Power Plan has two primary elements. First, it will set state-specific emission rate-based carbon dioxide goals.[11] Second, it will provide guidelines for the development, submission, and implementation of state plans.[12] The EPA has noted that, while it has carefully analyzed and created specific

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2 *The Clean Power Plan: A Climate Game Changer*, UNION OF CONCERNED SCIENTISTS (last visited Mar. 23, 2015), http://www.ucsusa.org/our-work/global-warming/reduce-emissions/what-is-the-clean-power-plan#.VPli7PzF8-0, *archived at* http://perma.cc/4MZT-3ETF.

3 Carbon Pollution Emission Guidelines, *supra* note 1, at 34,933, 34,929; KEY DATES, *supra* note 1.

4 Juliet Eilperin & Steven Mufson, *Everything you need to know about the EPA's proposed rule on coal plants*, WASH. POST, June 2, 2014, *available at* http://www.washingtonpost.com/national/health-science/epa-will-propose-a-rule-to-cut-emissions-from-existing-coal-plants-by-up-to-30-percent/2014/06/02/f37f0a10-e81d-11e3-afc6-a1dd9407abcf_story.html, *archived at* http://perma.cc/D7VF-BMKM.

5 *Id.*

6 *Id.*

7 Andrew Childers, *Clean Power Plan Already Affecting Coal Industry, Murray Energy Tells Court*, BLOOMBERG, Mar. 2, 2015, http://www.bna.com/clean-power-plan-n17179923516/, *archived at* http://perma.cc/F3UV-FJFS.

8 Carbon Pollution Emissions Guidelines, supra note 1, at 34,845.

9 *Id.* at 34,842.

10 *Id.*

11 *Id.* at 34,843.

12 *Id.*

goals to meet individual states' conditions, it is not proscribing how the states must meet these goals.[13] States are to be given flexibility to develop and implement their own plans as long as the plans are consistent with the EPA's guidelines.[14] Further, states will be allowed to operate alone or join with other states to develop regional plans.[15] To guide the states in meeting their proscribed emissions goals, the EPA has developed four building blocks for the states to follow in accomplishing emissions reductions, each describing a particular method to either reduce the carbon intensity of generation at affected electric generating units (EGUs) or reducing emissions as a whole from affected EGUs.[16] Accompanying these building blocks, the EPA also developed "stringency of application of the measures" to modify and attach specific quantities to generic terms, such as "amount" or "expanded."[17]

The EPA developed state goals by applying a "best system of emission reduction adequately demonstrated" standard to each state.[18] These goals are expressed in terms of average emission rates for fossil fuel-fired EGUs.[19] Goals will be phased in over time; interim goals will apply from 2020 to 2029, with final goals set to apply in 2030.[20] States will be required to submit initial plans by June 30, 2016, and complete plans by June 30, 2017 or 2018.[21] The EPA will evaluate and approve state plans based on four general criteria, and states' plans must follow existing EPA "framework regulations" for state implementation plans.[22]

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13 *Id.* at 34,842-43.

14 *Id.* at 34,845-46. The proposed rule allows for states to develop new solutions or to "rely on measures . . already in place, including renewable energy standards and demand-side energy efficiency programs." The proposal has included detailed guidance as to how states can integrate existing measures into the implementation plans for the new rule.

15 *Id.* at 34,897.

16 *Id.* at 34,836. The four building blocks are: (1) "reducing the carbon intensity of generation at individual affected electric generating units ("EGUs") through heat rate improvements"; (2) "reducing emissions from the most carbon-intensive affected EGUs in the amount that results from substituting generation at those EGUs with generation from less carbon-intensive affected EGUs (including natural gas combined cycle units that are under construction"; (3) "reducing emissions from affected EGUs in the amount that results from substituting generation at those EGUs with expanded low- or zero-carbon generation"; and (4) "reducing emissions from affected EGUs in the amount that results from the use of demand-side energy efficiency that reduces the amount of generation required."

17 *Id.* at 34,851. For example, the EPA proscribed for building block 1 improving average heat rate of coal-fired steam EGUs by six percent.

18 *Id.* at 34,852.

19 *Id.*

20 *Id.* at 34,837.

21 *Id.* at 34,838. Complete plans will be due by June 30, 2016, but states that document reasons for needing additional time will have until the 2017 or 2018 deadlines to submit their final plans.

22 *Id.* at 34,852. The four general criteria are: (1) Enforceable measures that reduce EGU CO_2 emissions; (2) projected achievement of emission performance equivalent to the goals established by the EPA, on a timetable equivalent to that in the emission guidelines; (3) quantifiable and verifiable emission reductions; and (4) a process for reporting on plan implementation, progress toward achieving CO_2 goals, and implementation of corrective

MASSACHUSETTS V. EPA: THE SUPREME COURT ORDERS THE EPA TO STUDY GHG EMISSIONS

While the EPA is surely in for lengthy court battles over its assertion of Clean Air Act jurisdiction for the Clean Power Plan, a lengthy legal history already accompanies the EPA's proposed GHG regulations, culminating in a 2007 Supreme Court decision in *Massachusetts v. Environmental Protection Agency*, which mandated that EPA study the effects of GHGs on public health and welfare.[23] *Massachusetts* arose out of a challenge to the EPA's refusal to regulate GHGs.[24] As early as 1999, the EPA was subject to a rulemaking petition to regulate GHG emissions from motor vehicles.[25] The EPA denied this petition in 2003, arguing Congress did not authorize the EPA to regulate GHGs nor would it be wise to regulate GHGs even if the EPA had the authority to do so.[26] The EPA also concluded that GHGs could not be "air pollutants" within the meaning of the CAA section 202(a), which, in relevant part, requires the EPA to "regulate . . . any air pollutant from . . . new motor vehicles, which . . . cause or contribute to, air pollution which may reasonably be anticipated to danger public health and welfare."[27] The EPA reasoned the Act's definition of "air pollutant" was limited to "local pollutants" and not GHGs, which "is fairly consistent in its concentration throughout the world's atmosphere."[28]

In a 5-4 decision, the Court found the EPA's argument unpersuasive. Rather, the Court held the CAA's definition of "air pollutant" to be "capacious."[29] Congress intended for the Act to be flexible enough to address future global warming concerns even if they did not fully "appreciate" these possibilities at the time of the Act's drafting—and that GHGs were "well within" its definition of "air pollutant."[30] After finding the EPA had authority to regulate GHGs, the Court then rejected the EPA's argument that it is "unwise" to regulate GHGs.[31] Rather, if the EPA finds GHGs endanger health and welfare, it must regulate them.[32] The EPA, the Court reasoned, certainly has latitude to make the scientific judgments required to enforce the CAA, but it equally lacks latitude to ignore what the Court saw as an unambiguous statutory mandate to regulate dangerous air pollutants.[33] The EPA's policy arguments were irrelevant to finding GHG emis-

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actions, if necessary." The EPAs "framework regulations" provide general guidelines for the adoption and submittal of state plans, and are located at 40 C.F.R. § 60.23 (1995).

23 Massachusetts v. Envtl. Prot. Agency, 549 U.S. 497 (2007).

24 *Id.* at 497.

25 *Id.* at 510.

26 *Id.* at 511. Among other arguments, the EPA stated Congress was aware of the possibility of global climate change when the 1990 amendments to the Clean Air Act were enacted, yet failed to adopt emissions limitations at that time. In the EPA's view, Congress rather intended to "specially tailor solutions to global atmospheric issues." *Id.* at 512. Similarly, the EPA "reasoned that climate change had its own 'political history'" and it is best to let Congress explicitly respond to the issue. *Id.*

27 *Id.* at 497.

28 *Id.* at 512.

29 *Id.* at 498-501.

30 *Id.* at 532.

31 *Id.*

32 *Id.* at 533-34.

33 *Id.* at 533.

sions contributed to climate change, and the EPA could not use them to blatantly "refus[e] to execute domestic laws."[34] The Court concluded by noting it was not, despite its strong language, ruling the EPA must make an endangerment finding, but merely that the EPA "must ground its reasons for action or inaction in the statute."[35]

The EPA's 2009 Endangerment Finding

Having been compelled to at least address the question by the Supreme Court in *Massachusetts*, the EPA found in 2009 that GHGs did endanger public health and welfare within the meaning of the Clean Air Act.[36] The EPA found public health threatened in several ways, including potential heat waves, increases in intense and extreme weather, and increased drownings and other health impacts due to rising sea levels and associated coastal storms and storm surges.[37] The EPA also found public welfare to be threatened in various ways.[38] Significant regions of the country would be at risk of reduced water supply, coastal areas would be subject to relatively more flooding, electricity demand would increase, many communities would be negatively affected, and ecosystems would be "fundamentally rearrange[d]" throughout the country.[39]

The EPA Asserts Authority for the Clean Power Act under Clean Air Act Section 111(d)

Having made the endangerment finding and finding fossil fuel-fired EGUs to be the largest emitters of GHGs, the EPA worked to create regulations for those emissions, resulting in the proposed Clean Power Act. Having made those two findings, the EPA asserts that its authority to regulate those EGUs may be derived from section 111(d) of the Clean Air Act.[40] The EPA's assertion, which has already been challenged in the D.C. Circuit,[41] hinges on the EPA's reconciliation of two versions of the same provision. Section 111(d)(1) requires "the EPA to promulgate regulations under which states must submit state plans regulating 'any existing source' or certain pollutants 'to which a standard of performance would apply if such existing source were a new source.'"[42] Section 111 defines a "new source" as "any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source."[43] The EPA states this means that any EGU in operation or on which

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34 *Id.* at 533-34.
35 *Id.* at 534-35.
36 Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule, 74 Fed. Reg. 66,496 (December 15, 2009) (codified at 40 C.F.R. subch. C).
37 Carbon Pollution Emissions Guidelines, *supra* note 1, at 34,841-42.
38 *Id.* at 34,842.
39 *Id.*
40 *Id.* at 34,832.
41 *See* Childers, *supra* note 7.
42 *Id.* at 34,853.
43 42 U.S.C. § 85.7411(a)(2) (1990).

construction had begun as of January 8, 2014, is an existing source under section 111 and thus subject to the Clean Power Plan rules.[44]

Major controversy arises, however, with the EPA's construction of section 111(d)(1)(A)(i). When Congress passed the 1990 Clean Air Act Amendments, each chamber passed an amendment to this section of the CAA.[45] Somehow—the EPA attributes it to drafting error—the Senate and House of Representatives passed different, conflicting versions of the provision.[46] Under the Senate version, regulation under section 111(d) would be excluded if the *pollutant* were already listed under section 112(b), which provides a list of hazardous pollutants that are then regulated by emissions standards set forth in the section.[47] Under the House version, regulation under section 111(d) would be excluded if the *source category* were already listed in section 112.[48] A number of hazardous pollutants, such as mercury, which can be emitted from fossil-fuel power plants, are listed in section 112(b).[49] Thus, it appears the *sources* regulated under the Clean Power Plan rules are already regulated under section 112. If the House version, which precludes such double regulation of sources, were to hold, regulation of power plants under section 111(d) could very well be a violation of the Clean Air Act.[50] However, if the Senate version holds that the EPA has chosen to follow, then the EPA appears to have authority to regulate GHG emissions from fossil-fuel power plants, as those pollutants are not listed under section 112(b).[51]

CONCLUSION: THE EPA'S CLEAN POWER PLAN POTENTIALLY FACES NUMEROUS LEGAL CHALLENGES

The EPA's construction of section 111(d) has already been challenged in the D.C. Circuit, and oral arguments were held this Spring.[52] Another possible challenge is predicated on the theory that existing sources cannot be regulated under section 111(d) unless analogous *new* sources are regulated under section 111(b), which requires the EPA to establish standards for new stationary sources found to endanger public health and welfare.[53] Proponents of this argument are likely focused on the clause in section 111(d)(a)(ii), which they argue makes regulation of a source under section 111(b) a perquisite for regulation of a source under section 111(d).[54] Fossil fuel power plants are not currently regulated under section 111(b). Such a construction of the section could prove disastrous for the EPA, barring new regulations under section 111(b).

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44 *Carbon Pollution Emissions Guidelines*, *supra* note 1, at 34,854.
45 *Id.* at 34,853.
46 *Id.*
47 *Id.*; *see also* 42 U.S.C. § 85.7412(b).
48 42 U.S.C. § 85.7412(b).
49 *Id.*; *see also* Michael B. Gerrard, *Legal Challenges to Obama Administration's Clean Power Plan*, 252-50 N.Y. LAW J., Sept. 11, 2014, *available at* http://www.arnoldporter.com/resources/documents/NYLJ_Legal Challenges to Obama Administration's Clean Power Plan_09 112014.pdf, *archived at* http://perma.cc/V7QH-SXPD.
50 *Id.*
51 *Id.*
52 Childers, *supra* note 7.
53 Gerrard, *supra* note 49.
54 Section 111(d)(A)(ii) states, "to which a standard of performance under this section would apply if such existing source were a new source." 42 U.S.C. § 85.7411(d)(A)(ii).

Once the final Clean Power Plan rules are issued, a number of other legal challenges may arise, such as the EPA's methodology for determining state goals, its selection of suggested strategies and approaches for mitigating GHG emissions, and possibly many others.[55] In any event, the EPA, the coal industry, business advocates, and the American public are likely in for a bumpy few months, if not years, as the legal system searches for answers.

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FEDERAL CASENOTE

ENV'T TEX. CITIZEN LOBBY, INC. V. EXXONMOBIL CORP., No. H–10–4969, 2014 WL 7177794 (S.D. Tex. Dec. 17, 2014)

INTRODUCTION

Environment Texas Citizen Lobby, Inc. and Sierra Club (Plaintiffs) brought suit under the citizen suit provision of the Clean Air Act (CAA) against ExxonMobil and its subsidiaries, ExxonMobil Chemical Company and ExxonMobil Refining and Supply Company (collectively, "Exxon").[1] The Plaintiffs sought redress for injuries they claimed resulted from unauthorized air emissions and deviations from Exxon's CAA permit issued under Title V of the CAA by the Texas Commission on Environmental Quality (TCEQ)[2] for an industrial site at its Baytown, Texas facilities.[3] The United State District Court for the Southern District of Texas found that most of the Plaintiffs' claims were not actionable under the CAA because they failed to prove repeated violation of the same, specific emission limitation.[4] Additionally, the court held that penalties should not be assessed against Exxon for the actionable violations of its permit.[5] Finally,

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55 Gerrard, *supra* note 49.

1 Env't Tex. Citizen Lobby, Inc. v. ExxonMobil Corp., No. H–10–4969, 2014 WL 7177794, at *1 (S.D. Tex. Dec. 17, 2014); *see* Air Pollution Control Act, 42 U.S.C. § 7604 (West 2014).

2 *Env't Tex. Citizen Lobby, Inc.*, 2014 WL 7177794, at *2; *see* 30 TEX. ADMIN. CODE § 122.142(b) (West 2015).

3 *Env't Tex. Citizen Lobby, Inc.*, 2014 WL 7177794, at *1-2.

4 *Id.* at *11-16.

5 *Id.* at *18-23.

the court found that an injunction against future violations was unnecessary because it would only require compliance with the CAA.[6]

BACKGROUND

The complex involved in the case is a large and complicated industrial site consisting of a refinery, an olefins plant, and a chemical plant.[7] Exxon's permit required recording and reporting noncompliance events.[8] This reporting obligation is split into three categories (collectively, the "Events and Deviations"): (i) reportable emission events that exceed a certain pollutant thresholds; (ii) recordable emissions events that do not exceed pollutant thresholds; and (iii) Title V deviations that can include non-emission events.[9] Exxon and the TCEQ investigated the alleged Events and Deviations; after such investigations, the TCEQ assessed Exxon $1,423,632 in penalties, and Exxon undertook certain corrective actions to prevent future violations.[10] Exxon reached an agreement with the TCEQ to implement four environmental improvement projects, agreeing to use an assortment of emission-reduction technologies that have contributed to a regular annual decrease in emissions at the complex.[11]

The four named Plaintiffs were members of either Environment Texas or the Sierra Club who live, have lived, or visit the area of Baytown wherein the complex is located.[12] Three of the four named Plaintiffs claimed to have physical ailments they attribute to the complex.[13] All of the named Plaintiffs reported distress and changes in their activities after seeing flares and smelling pungent odors when they were near the complex.[14]

STANDING

The court found that Environment Texas and the Sierra Club had standing to bring their citizen suit against Exxon because: (1) their members (the four named plaintiffs) have standing to sue on their own; (2) the interests of the suit are related to the purpose of the organizations; and (3) the claim and the relief requested did not require the participation of individual members.[15] As to the first element, the court found that the four individuals had (a) an injury-in fact; (b) that was traceable to the actions of the defendant; and (c) that the court would be able to redress the Plaintiffs' injury if they succeeded in their claim.[16] The court ruled that the individuals had an injury-in-fact because they suffered physical ailments, had worries caused by the operations at the complex, and changed activities because of the ailments and worries.[17] The Plaintiffs

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6 *Id.* at *23-24.
7 *Id.* at *1.
8 *Id.* at *2.
9 *Id.*
10 *Id.* at *2-3.
11 *Id.* at *4-5.
12 *Id.* at *6-8.
13 *Id.*
14 *Id.*
15 *Id.* at *8 (quoting Texans United for a Safe Econ. Educ. Fund v. Crown Cent. Petrol. Corp., 207 F.3d 789, 792 (5th Cir. 2000)).
16 *Id.* at *9-10 (citing *Texans United for a Safe Econ. Educ. Fund*, 207 F.3d at 792).
17 *Id.* at *9-10.

were able to prove traceability by demonstrating that they saw flares and smelled odors emanating from the complex and that their physical ailments decreased when they moved away from the complex.[18] The court cited to case history to demonstrate that Plaintiffs' request for penalties and injunctive relief satisfied the redressability requirement of standing.[19]

After establishing that the Plaintiffs had standing, the court undertook an analysis to determine if Exxon's violations of its emission standards were actionable under the CAA citizen suit provision.[20]

Actionability

The CAA citizen suit provision requires the plaintiff to prove that the defendant violated the same emission standard repeatedly before a complaint was filed, or that it violated the same emission standard both before and after the complaint, or that an ongoing violation is likely.[21] In this case, the Plaintiffs claimed that Exxon violated the same emission standard repeatedly before a complaint was filed and that Exxon violated the same emission standard before and after the complaint.[22] However, the Plaintiffs did not claim that ongoing violation was likely at the complex.[23] The court stressed that the Plaintiffs must prove the repeated violation of the same, specific standard, limitation, schedule, term, or condition under the Title V permit to show actionability.[24] The court found that the Plaintiffs met their burden of proof demonstrating repeated violation of the same, specific conditions of the limitations, particularly hourly limits, for four of the seven alleged counts of repeated violation.[25]

Relief

In their complaint, the Plaintiffs requested a declaratory judgment, penalties, permanent injunction, and the appointment of a special master to ensure compliance with the injunctive relief.[26] Ultimately, the court reviewed and denied all of the Plaintiffs' requests, as follows.[27]

Declaratory Judgment

The Plaintiffs sought declaratory judgment based on the claim that Exxon had violated the CAA when it violated the complex's Permit.[28] The court refused to issue the declaratory judgment because whether a defendant violated the CAA is not the sole issue in a citizen suit.[29] The court stated that the issue was whether there had been

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18 *Id.*
19 *Id.* at *10 (citing *Texans United for a Safe Econ. Educ. Fund*, 207 F.3d at 794).
20 *Id.* at *11.
21 *Id.* (citing 42 U.S.C. § 7604(a)(1) (West 2014)).
22 *Id.* at *11.
23 *Id.*
24 *Id.* at *12 (citing 42 U.S.C. § 7604(a)(1) (West 2014)).
25 *Id.* at *12-18.
26 *Id.* at *1.
27 *Id.* at *25.
28 *Id.* at *18.
29 *Id.* at *19 (citing Sierra Club, Lone Star Chapter v. Cedar Point Oil Co., 73 F.3d 546, 576 (5th Cir. 1996)).

repeated violations of the same, specific emission limitation; however, the court had already presented its findings on that issue and declined to issue a declaratory judgment.[30]

PENALTIES

The determination of whether penalties should be assessed against the defendant in a CAA citizen suit is largely left to the discretion of the court.[31] Here, the court ruled that Exxon should not be penalized for the actionable violations of the CAA[32] in light of the penalty assessment factors enumerated in the CAA.[33]

1. Size of the Business and Economic Impact of the Penalty on the Business

The court ruled that Exxon's massive size and profitability gave it the ability to easily pay any penalty that would be levied and, therefore, favored assessing a penalty against Exxon.[34]

2. Violator's Full Compliance History and Good Faith Efforts to Comply

Exxon's investigation, maintenance, and improvement policies and the testimony of a TCEQ regulator demonstrated that Exxon made a good faith effort to comply with the CAA, which weighed against assessing a penalty against Exxon.[35]

3. Duration of the Violation

The court noted that the duration of the violations vary greatly, from less than a minute to more than a day; the large variance in the duration of the violations neither favored nor disfavored assessing a penalty.

4. Payment by the Violator of Penalties Previously Assessed for the Same Violation

The plaintiffs and the court agreed that the $1,432,632 Exxon already paid in penalties would be deducted from any penalties that the court assessed.[36]

5. Economic Benefit of Noncompliance

Courts generally determine a company's economic benefit of noncompliance by determining the amount of capital expenditure that was avoided by noncompliance and the subsequent return earned on the capital.[37] The court found that the Plaintiffs failed to present any credible evidence that Exxon gained sustainable benefit from non-compliance; in fact, Exxon had spent well over $500 million on maintenance and emission reduction improvements, which disfavored assessing a penalty.[38]

6. Seriousness

The court noted that the seriousness of the violations varies greatly. However, the majority of violations were not serious or less serious.[39] These variations and the trouble

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30 *Id.* at *18.
31 *Id.* at *18-19; *see* 42 U.S.C. § 7413(e)(1) (West 2014).
32 *Env't Tex. Citizen Lobby, Inc.*, 2014 WL 7177794, at *18.
33 *Id.* at *18-19.
34 *Id.* at *19.
35 *Id.*
36 *Id.*
37 *Id.* (citing United States ex rel. Adm'r of Envtl. Prot. Agency v. CITGO Petrol. Corp., 723 F.3d 547, 552-53 (5th Cir. 2013)).
38 *Id.* at *20-21.
39 *Id.* at *21-23.

determining whether the violations were responsible for the Plaintiffs' alleged injuries disfavored assessing a penalty.[40]

Even though some factors favored assessing a penalty, the court found Exxon's good faith compliance efforts, the lack of any economic benefit from noncompliance, and evidence supporting that the violations were not serious resulted in no assessment of a penalty.[41] Therefore, the court determined that a balance of the factors weighed against assessing a penalty.[42]

Injunctive Relief and Special Master

The court denied Plaintiffs' request for injunctive relief.[43] The court noted that the decision to grant or refuse injunctive relief is left to the court's discretion,[44] and an injunction would simply require Exxon to obey the CAA in the future.[45]

In their complaint, the Plaintiffs requested that the court appoint a special master to ensure that Exxon complied with any injunctive relief granted.[46] However, because the court denied granting injunctive relief, the appointment of a special master was not necessary.[47]

Conclusion

Ultimately, the court found that, despite the Plaintiffs' standing and actionable complaints, their requests for relief were unsupported by the evidence.[48] Therefore, the court denied the Plaintiffs' request for declaratory judgment, penalties, injunctive relief and the appointment of a special master.[49]

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40 *Id.*
41 *Id.* at *23.
42 *Id.*
43 *Id.* at *24.
44 *Id.* (citing Weinberger v. Romero-Barcelo, 456 U.S. 305, 320 (1982)).
45 *Id.* at *24.
46 *Id.* at *25.
47 *Id.*
48 *Id.*
49 *Id.*

STATE CASENOTE

SIERRA CLUB V. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, NO. 03-11-00102-CV, 2014 WL 7464085 (TEX. APP.—AUSTIN 2014, NO PET. H.)

INTRODUCTION

On December 30, 2014, the Third Court of Appeals of Texas affirmed the Texas Commission on Environmental Quality's (TCEQ) denial of Sierra Club's request for a contested case hearing in a byproduct disposal licensing application because Sierra Club's members were not affected persons.[1] The court also affirmed the district court's denial of Sierra Club's motion to present new evidence.[2]

BACKGROUND

In 2004, Waste Control Specialists (WCS) applied to the Texas Department of State Health Services (TDSHS) for a license to build an additional landfill to dispose of radioactive materials.[3] During the course of administrative review of that application, the Legislature transferred licensing authority from TDSHS to TCEQ.[4] In 2008, after completing the review of WCS's application, TCEQ issued a draft license for public notice.[5]

Sierra Club challenged WCS's application and the draft of the license on three grounds: (i) improper description of site hydrology, geology, sedimentology, and hydrogeology; (ii) lack of data and effective groundwater monitoring plans; and (iii) incomplete analysis of the effects of wind at the proposed site.[6] Sierra Club requested a contested case hearing on WCS's application, asserting that two of its members would be adversely affected by the proposed operation.[7] Sierra Club claimed that its two affected members have lived and operated businesses in the vicinity of the proposed facility.[8]

TCEQ denied Sierra Club's request for a hearing.[9] Sierra Club sought judicial review in Travis County District Court.[10] Sierra Club sought summary judgment as to whether TCEQ erred in denying its hearing request and also moved to present new evidence, both denied by the district court.[11] On appeal, Sierra Club challenged: (i) TCEQ's de-

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1 Sierra Club v. Tex. Comm'n on Envtl. Quality, No. 03-11-00102-CV, 2014 WL 7464085 (Tex. App.—Austin Dec. 30, 2014, no pet. h.).
2 *Id.* at *10.
3 *Id.* at *1.
4 *Id.*; *see also* TEX. HEALTH & SAFETY CODE ANN. § 401.202 (West 2013).
5 *Sierra Club*, 2014 WL 7464085 at *2.
6 *Id.*
7 *Id.*
8 *Id.*
9 *Id.* at *3.
10 *Id.*
11 *Id.*

nial of its hearing request; and (ii) the district court's denial of its motion to present new evidence.[12]

First Issue: Legitimacy of TCEQ's Denial of Hearing Request

Under the Texas Radiation Control Act (TRCA), TCEQ has the "sole and exclusive authority" over licensing process concerning disposal of radioactive by-product materials.[13] The TRCA requires TCEQ to hold a contested case hearing on a license application if a person affected by the issuance of the proposed license requests such a hearing.[14] The TRCA defines a "person affected" as a person who "has suffered or will suffer actual injury or economic damage."[15] More generally, under the Texas Water Code (TWC) chapter 5, an "affected person" is "a person who has a personal justiciable interested related to a legal right, duty, privilege, power, or economic interest" affected by a proposed action.[16] TCEQ has also adopted rules addressing the issue, which identify additional factors to consider in determining whether a person is affected for purposes of a hearing request: whether the interest claimed is legally protected and the potential impacts of the regulated activity on the health, safety, and use of property of the person.[17]

In the absence of a stated standard of review, the court of appeals applied an abuse of discretion standard to TCEQ's denial of Sierra Club's hearing request, citing similar treatment by the Texas Supreme Court in two recent cases.[18] Applying that standard, the Third Court of Appeals affirmed the district court's decision holding that TCEQ did not abuse its discretion in finding that, because the two offered Sierra Club members were not affected persons, Sierra Club was not entitled to a contested case hearing.[19] Among several reasons, the court found that: (i) WCS's application included all required data showing that the proposed construction would not impact the area groundwater;[20] (ii) the proposed license complied with the relevant statute and regulations concerning migration of radioactive materials from wind;[21] (iii) potential traffic accidents are interests common to the members of the general public;[22] and (iv) appellants' allegation of negative publicity for the area around the facility was not one of the concerns a contested case hearing could address.[23]

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12 *Id.*
13 *Id.* at *4; *see also* Tex. Health & Safety Code Ann.§ 401.2625 (West 2013).
14 *Sierra Club*, 2014 WL 7464085 at *4; *see also* Tex. Health & Safety Code Ann. § 401.264(a) (West 2013).
15 *Sierra Club*, 2014 WL 7464085 at *4; *see also* Tex. Health & Safety Code Ann. § 401.003(15) (West 2013).
16 *Sierra Club*, 2014 WL 7464085 at *4; *see also* Tex. Water Code Ann. § 5.115(a) (West 2013).
17 *Sierra Club*, 2014 WL 7464085 at *5.
18 *Id.* at *4-5 (citing Texas Comm'n on Envtl. Quality v. City of Waco, 413 S.W.3d 409, 417 (Tex. 2013); Texas Comm'n on Envtl. Quality v. Bosque River Coal., 413 S.W.3d 403, 404 (Tex. 2013)).
19 *Id.* at *5.
20 *Id.* at *9.
21 *Id.*
22 *Id.*
23 *Id.*

SECOND ISSUE: LEGITIMACY OF THE DISTRICT COURT'S DENIAL OF SIERRA CLUB'S MOTION FOR REMAND TO CONSIDER MATERIAL NEW EVIDENCE

Sierra Club also challenged the district court's denial of its motion to present new evidence.[24] Sierra Club offered two internal TCEQ memos written by TCEQ staff in 2007.[25] Each memorandum disfavored issuance of the license to WCS because the authors believed that WCS had not complied with the relevant regulatory requirements.[26] Sierra Club alleged that TCEQ's internal memos are material in determining the validity of WCS's license and should have been included in TCEQ's evaluation of its hearing request under the Administrative Procedure Act (APA).[27]

The Third Court of Appeals affirmed the district court's denial of Sierra Club's request on the ground that the contested case appeal provisions of the APA do not apply to the review of denied hearing requests.[28] It found that Sierra Club's reliance on APA section 2001.175(c) was misplaced, as that provision concerns the presentation of additional evidence subsequent to a final agency action that is subject to appellate review.[29] The court further found that, even assuming section 2001.175(c) applied to the case present, the additional evidence offered by Sierra Club was not material within the meaning of that section.[30]

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24 Sierra Club v. Tex. Comm'n on Envtl. Quality, No. 03-11-00102-CV, 2014 Tex. App. LEXIS 13828, at *1 (Tex. App.—Austin Dec. 30, 2014, pet. filed).
25 *Id.* at *9, *24-25.
26 *Id.* at *25.
27 TEX. GOVT. CODE §2001.171-2001.178.
28 *Sierra Club*, 2014 Tex. App. LEXIS 13828, at *25–26.
29 *Id.* at *26–27.
30 *Id.* at *27–28.

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