

# Beyond *Entergy Nuclear Vermont Yankee*: Preserving Public Agency in Nuclear Regulation

Joseph Spivey\*

I.	INTRODUCTION .....	473
II.	BACKGROUND .....	475
III.	THE REDUCTION OF PUBLIC INPUT IN THE FEDERAL REGULATORY PROCESS.....	480
	A. <i>Streamlined Licensing and Licensing Adjudication         Procedures at the NRC</i> .....	480
	B. <i>Public Guidance of NRC Enforcement: Power         Uprates at the Vermont Yankee</i> .....	485
IV.	VERMONT YANKEE AND THE FUTURE OF PUBLIC AGENCY IN NUCLEAR REGULATION .....	489
	A. <i>Vermont's Legislation</i> .....	490
	B. <i>Entergy Nuclear Vermont Yankee v. Shumlin</i> .....	493
	C. <i>Implications for Public Agency in Nuclear         Regulation</i> .....	495
	D. <i>The Adequacy of the AEA in the Modern Energy         Landscape</i> .....	499
	E. <i>Implications for Effective Policy Formulation</i> .....	502
V.	CONCLUSION .....	505

## I. INTRODUCTION

In early 2012, nuclear energy in the United States entered a new era. On February 9, the Nuclear Regulatory Commission (NRC or Commission) approved construction of the first new reactors in over thirty years.<sup>1</sup> Only several weeks prior, a federal district court invalidated a law passed by the Vermont General Assembly which would have

---

\* © 2012 Joseph Spivey. J.D. candidate 2013, Tulane University Law School; B.A. 2010, Political Science, Vanderbilt University. Mr. Spivey wishes to thank his family for their support. He would also like to thank Professor Amy Stein for her insights and guidance on this project.

1. Lucia Graves, *Vogtle Nuclear Power Plant Wins First Reactor Construction Permit in a Generation*, HUFFINGTON POST (Feb. 9, 2012, 3:07 PM), [http://www.huffingtonpost.com/2012/02/09/federal-regulators-approve-nuclear-reactor\\_n\\_1266100.html](http://www.huffingtonpost.com/2012/02/09/federal-regulators-approve-nuclear-reactor_n_1266100.html).

allowed the state legislature to override the NRC's twenty-year license extension for the Vermont Yankee Nuclear Plant, a controversial reactor located in Vernon, Vermont.<sup>2</sup> Despite renewed opposition following the 2011 disaster at the Fukushima Daiichi Reactor in Japan, nuclear energy in the United States may be poised for expansion. Perhaps growing concerns over inadequate power supply and climate change have paved the way for nuclear power's extended life. However, these developments may to a large degree reflect the public's diminishing influence over nuclear regulation. This Comment explores the latter possibility and argues that a diminished role for the public serves neither the nuclear industry's best interests nor those of the nation.

After Three Mile Island and Chernobyl, the NRC began a gradual campaign to reduce opportunities for public participation and control over the licensing and operation of nuclear facilities.<sup>3</sup> By imposing a series of strict procedural burdens and streamlined licensing proceedings, the NRC has made it difficult for public interest groups to gain traction and steer the Agency's actions.<sup>4</sup> The NRC's recent actions suggest that it is seeking to consolidate absolute control over the regulatory process within itself to the detriment of public access. An elimination of public influence should be a concern when discussing any regulatory agency, but it is especially troubling with regard to nuclear power, given the potentially devastating impact of the radioactive materials involved.

However, the greater concern is that the public will lose the primary avenue of redress reserved for it at the birth of the nuclear industry: control via state legislatures. When Congress recognized the potential for nuclear energy in passing the Atomic Energy Act of 1946 (AEA), it acknowledged that this potential was not to be harnessed to the detriment of public safety.<sup>5</sup> Congress did not intend for nuclear energy to be forced upon the nation. Instead, it realized that the ultimate decision of whether or not to embrace nuclear energy as an economically sound, reliable source of power should be left to the states.<sup>6</sup> In contrast, decisions on how to regulate the radiological aspects of the industry were left to the

---

2. Entergy Nuclear Vt. Yankee, LLC v. Shumlin, No. 1:11-cv-99(jgm), 2012 WL 162400, at \*1, \*38-39, \*42 (D. Vt. Jan. 19, 2012).

3. Christopher C. Chandler, Recent Development, *Recent Developments in Licensing and Regulation at the Nuclear Regulatory Commission*, 58 ADMIN. L. REV. 485, 488-90 (2006) (citing Nuclear Info. Res. Serv. v. Nuclear Regulatory Comm'n, 969 F.2d 1169 (D.C. Cir. 1992) (en banc)).

4. *See id.*

5. 42 U.S.C. § 2012(d) (2006).

6. *See id.* § 2021(b).

judgment of the NRC.<sup>7</sup> The 1983 United States Supreme Court decision in *Pacific Gas & Electric Co. v. State Energy Resources Conservation & Development Commission* confirmed the states' authority to make the "threshold determination" of whether to allow nuclear power, but designated the subsequent regulation of plant construction and operation as the role of the NRC.<sup>8</sup>

The recent *Entergy Nuclear Vermont Yankee, LLC v. Shumlin* decision disturbs this traditional balance of power, raising concerns for public representation in the future of the nuclear industry.<sup>9</sup> Given the public's diminishing clout in the federal sphere, the necessity of preserving public agency through state legislatures has become more apparent. This Comment seeks to illustrate the danger of eliminating forums for public deliberation and control over nuclear energy by examining, first, the evolution of public-averse procedures at the NRC and second, the implications of the recent *Vermont Yankee* decision in light of this trend.

## II. BACKGROUND

Initially, nuclear research and development was conducted exclusively by the federal government because of the monopoly power granted to it by the AEA of 1946.<sup>10</sup> Almost a decade later, the government amended the AEA to create a process by which private investors could obtain licenses to construct and operate nuclear power facilities.<sup>11</sup> Federal licensing was administered by the Atomic Energy Commission (AEC), an agency with the dual responsibilities of promoting nuclear power and regulating its safety.<sup>12</sup> With the initial regulatory framework in place, nuclear energy grew rapidly.

As it became evident that nuclear energy was destined to become a sizable commercial industry, Congress modified the regulatory structure to suit the public and the industry. In order to sustain private investment in nuclear energy, Congress passed the Price-Anderson Act in 1957.<sup>13</sup> The Act limited the liability of individual plant owners by providing that

---

7. *Id.* § 2021(c).

8. 461 U.S. 190, 205, 225-26 (1983) (citing Judith C. Bauman & John C. Platt, Note, *May a State Say "No" to Nuclear Power?* Pacific Legal Foundation *Gives a Disappointing Answer*, 10 ENVTL. L. 189, 199 (1979)).

9. No. 1:11-cv-99(jgm), 2012 WL 162400 (D. Vt. Jan. 19, 2012).

10. *Pac. Gas*, 461 U.S. at 206.

11. 42 U.S.C. § 2137.

12. Atomic Energy Act of 1946, ch. 724, § 2(a), 60 Stat. 755.

13. Price-Anderson Act, 42 U.S.C. § 2210; Act of Sept. 2, 1957, Pub. L. No. 85-256, 71 Stat. 576.

“the United States may make funds available for a portion of the damages suffered by the public from nuclear incidents, and may limit the liability of those persons liable for such losses.”<sup>14</sup>

In 1959, Congress amended the AEA by adding section 274 in order to “clarify the respective responsibilities . . . of the States and the Commission with respect to the regulation of byproduct, source, and special nuclear materials.”<sup>15</sup> Subsection 274(k) includes a generous reserve clause that states, “Nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards.”<sup>16</sup>

Congress amended the AEA again in 1974 to address growing concerns over the wisdom of having a regulatory agency tasked with both the expansion and regulation of nuclear energy. This amendment created the NRC and gave it exclusive authority over nuclear safety and environmental regulation.<sup>17</sup> The developmental role was transferred to the newly created Energy Research and Development Administration (later merged into the Department of Energy (DOE)).<sup>18</sup> As the generation of nuclear energy expanded, Congress realized that the accumulation of nuclear waste and spent fuel posed a serious threat to the longevity of nuclear power, from the standpoints of reliable operations and human and environmental health. Accordingly, it passed the Nuclear Waste Policy Act of 1982, which placed the burden on the federal government “to provide for the permanent disposal of high-level radioactive waste and . . . spent nuclear fuel.”<sup>19</sup> Responsibility for the costs of waste disposal remained on a plant’s owner.<sup>20</sup> Congress passed the Low-Level Radioactive Waste Policy Amendments Act of 1985 to assign responsibility for the disposal of low-level radioactive waste to the states.<sup>21</sup> After this, the allocation of authority between states and the federal government under the AEA has remained substantially unchanged.

Interestingly, of all the amendments to the AEA, none signified a major shift in federal nuclear policy, though several reactor accidents

---

14. 42 U.S.C. § 2012(i).

15. *Id.* § 2021(a)(1).

16. *Id.* § 2021(k).

17. Energy Reorganization Act of 1974, Pub. L. No. 93-438, § 201(a), 88 Stat. 1233, 1242-43.

18. *Id.* § 2(a), 88 Stat. at 1233.

19. 42 U.S.C. § 10131(a)(4); Nuclear Waste Policy Act of 1982, Pub. L. No. 97-425, § 111(a)(4), 96 Stat. 2201, 2207 (1983) (codified as amended at 42 U.S.C. §§ 10101-10270).

20. 42 U.S.C. § 10131(a)(4).

21. Low-Level Radioactive Waste Policy Amendments Act of 1985, Pub. L. No. 99-240, § 3, 99 Stat. 1842 (1986) (codified as amended at 42 U.S.C. § 2021).

caused political leaders in other nations to abandon nuclear energy swiftly.<sup>22</sup> In 1979, a combination of technological malfunction and human error led to the partial meltdown of a reactor at the Three Mile Island plant near Harrisburg, Pennsylvania.<sup>23</sup> The plant was forced to shut down and, consequently, released an insubstantial amount of radioactive gas.<sup>24</sup> The event scarred nuclear energy's flawless record and caused widespread fear and opposition that brought an end to development in the United States for the next thirty years. However, approximately 100 plants continued to operate at decreased capacity, though many utilities would later apply for controversial uprates that would allow plants to operate at significantly higher capacities.<sup>25</sup>

Almost a decade after Three Mile Island, another major reactor accident occurred at the Chernobyl reactor in the Soviet Union. In the course of conducting a safety experiment, operators lost control and several explosions blew the roof off the reactor and released a large cloud of radioactive gas into the atmosphere that traveled around the European continent.<sup>26</sup> For most of Europe, this event left national political leaders with no choice but to abandon nuclear energy, given that public support for the industry, and in the case of the Soviet Union, for Communist governance, was built on the assumption that such an accident would never occur.<sup>27</sup>

In contrast, the nuclear moratorium in the United States was the result of economic decisions by state governments and utilities. On the federal side, the response was not to decrease reliance on nuclear power, but instead to implement numerous federally funded investment incentives and changes in agency procedure that would allow nuclear energy to keep its place in the discussion of viable long-term energy sources.<sup>28</sup> When it became clear that utilities would not consider building nuclear power plants unless the costs of licensing and construction were reduced, Congress reacted by including guidelines in the Energy Policy Act of 1992 that authorized the NRC to streamline its licensing procedures in order to reduce excess costs to licensees.<sup>29</sup> Furthermore,

---

22. None of the AEA amendments were direct, immediate responses to safety concerns triggered by Three Mile Island, Chernobyl, or Fukushima. See DANIEL YERGIN, *THE QUEST: ENERGY, SECURITY, AND THE REMAKING OF THE MODERN WORLD* 371-78 (2011).

23. *Id.* at 371.

24. *Id.*

25. *Id.* at 374.

26. *Id.* at 376.

27. See *id.* at 377.

28. See *id.* at 403-04.

29. 42 U.S.C. § 2235 (2006); MARK HOLT, CONG. RESEARCH SERV., RL 33558, *NUCLEAR ENERGY POLICY* 12 (May 10, 2011), <http://www.fas.org/sgp/crs/misc/RL33558.pdf>.

the federal government, through the DOE, continues to provide tremendous financial incentives for the construction and operation of nuclear power plants, including production tax credits, loan guarantees, and subsidies for licensing costs.<sup>30</sup> The Energy Policy Act of 2005 (EPA of 2005) provides federal funding to plant owners who are being delayed by regulatory review.<sup>31</sup> In 2010, the DOE covered up to half of applicants' costs incurred because of licensing procedures.<sup>32</sup> Finally, in 2003, the NRC began a review of three early site permits for new reactor projects.<sup>33</sup>

By 2011, a number of utilities were years into the application process when an accident at the Fukushima Daiichi reactor in Japan jolted the nuclear-energy industry once again. Triggered by a massive earthquake, a loss of power supply caused three reactors to lose coolant.<sup>34</sup> As a result, exposed fuel rods with incredibly high temperatures melted the reactor cores.<sup>35</sup> As backup coolant systems failed, pressures built and eventually lead to a series of explosions that blew the tops off the reactors and released significant amounts of radioactive gas into the atmosphere.<sup>36</sup> Although extensive research is being conducted domestically and abroad, the implications of Fukushima are still unknown. What is certain is that massive damage has been done to the area surrounding the reactors. Thousands have evacuated the area, and the costs of cleanup, compensation, and research will be enormous.<sup>37</sup>

Nonetheless, construction of new reactors in the United States is moving forward. Furthermore, old reactors with obsolete designs may receive twenty-year extensions on their original licenses.<sup>38</sup> This potential resurgence of nuclear energy is occurring against a broader regulatory environment defined by (1) increasingly deregulated/integrated electricity markets, (2) more diverse sources of power generation, and (3) a citizenry that is becoming increasingly concerned about environmental and climate change issues.<sup>39</sup> Thus, the landscape surrounding nuclear

---

30. HOLT, *supra* note 29, at 17-18.

31. *Id.* at 12.

32. *Id.*

33. Chandler, *supra* note 3, at 491 (citing 17 DIV. OF PLANNING, BUDGET & ANALYSIS, U.S. NUCLEAR REGULATORY COMM'N, NUREG-1350, INFORMATION DIGEST 95-116 (2005-2006 ed. 2005), <http://pbadupws.nrc.gov/docs/ML0526/ML052620233.pdf>; *Hearing on Nuclear Power 2010 Program Before the S. Comm. on Energy & Natural Res.*, 109th Cong. (2005)).

34. YERGIN, *supra* note 22, at 411-12.

35. *Id.*

36. *Id.*

37. *See id.* at 412.

38. *Id.* at 404-05.

39. *See generally id.* at 396-416.

regulation is far different than it was during the first years of the AEA. At that time, the industry enjoyed a clean slate and expanded under the assumption that a major accident was impossible. This, of course, has proven untrue. Similarly, the risk posed by rapidly accumulating radioactive waste is widely acknowledged, but absolutely no progress has been made in the effort to establish a permanent repository.<sup>40</sup> This absence continues to impose financial, environmental, and safety concerns on utilities, states, and citizens living near reactors. Furthermore, it is now clear that nuclear energy is not in fact “too cheap to meter,” as it was once believed to be, and this revelation could make it an imprudent power investment, given the rapidly declining price of domestic shale gas.<sup>41</sup> In addition, the number of “clean” supply alternatives has grown, as solar, wind, biomass, and various hydroelectric sources continue to develop on a utility scale.<sup>42</sup> Though the basic assumptions underlying the original AEA have changed, Congress has not found it necessary to disturb the original framework of cooperative federalism established under the AEA. While Congress has enlarged regulatory discretion at the NRC,<sup>43</sup> it has not placed a corollary restriction on state authority. Furthermore, common law precedent regarding this balance has remained fixed since *Pacific Gas*.

However, the recent *Vermont Yankee* decision has cast doubt on the ability of the AEA to serve as a meaningful guide for demarcating state and federal power over nuclear energy in the evolving, modern landscape. The judicial approach in *Vermont Yankee* represents a substantial deviation from precedent that has significant implications for public agency and deliberation in nuclear policy formulation. The remainder of this Comment will examine the appropriate balance of power under the AEA at a time when safety and environmental concerns have peaked, but public access to federal regulators continues to decrease. Part III will argue that the NRC has grown averse to public participation over time and has amended its licensing and adjudication procedures accordingly. Part IV will analyze the recent decision in *Vermont Yankee* and will argue that the generous discretion granted to states by the AEA, as confirmed by *Pacific Gas*, has been unjustifiably reduced. In light of the trend identified in Part III, Part IV will argue that the Vermont district court’s approach to AEA preemption has dire implications for state governments and, in turn, for public control over

---

40. *Id.* at 406.

41. *Id.* at 329-30, 368.

42. *Id.* at 525-26.

43. *See* HOLT, *supra* note 29, at 12.

nuclear regulation. This should be a concern, not just for the general public, but for nuclear-energy advocates as well.

### III. THE REDUCTION OF PUBLIC INPUT IN THE FEDERAL REGULATORY PROCESS

The NRC has several key responsibilities under the AEA. It is charged with licensing nuclear facilities and developing standards by which these facilities operate.<sup>44</sup> It is also charged with monitoring these facilities and taking actions, either on its own initiative or per request, to enforce its human and environmental safety standards.<sup>45</sup> Any member of the public may petition the NRC to create, modify, rescind, or enforce a rule.<sup>46</sup> Individuals may also participate in a number of licensing procedures. However, the NRC's general attitude toward the public has grown less hospitable over time as the public's ability to cause delays and raise costs has become apparent. The next Subparts will examine the public's role in nuclear plant decisions, both prior to the licensing of a plant and after the plant begins operation. Subpart A will examine public participation in licensing procedures, and Subpart B will examine the public's ability to guide industry standards and enforcement after plants have come on-line.

#### A. *Streamlined Licensing and Licensing Adjudication Procedures at the NRC*

Originally, the AEA provided the NRC with the authority to grant licenses for construction and operation in two separate stages.<sup>47</sup> An applicant first had to obtain a license to begin construction and then, after completing construction, had to receive an additional permit declaring the plant safe for operation.<sup>48</sup> The process provided members of the public with two opportunities, several years apart, to interject with their concerns. However, the delays caused by the two separate phases proved costly, and as a consequence, the NRC streamlined the process to avoid interference.<sup>49</sup>

---

44. 42 U.S.C. § 2133 (2006).

45. *Id.* § 5846.

46. *Petition the NRC To Take an Enforcement Action*, U.S. NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/about-nrc/regulatory/enforcement/petition.html> (last updated Mar. 29, 2012).

47. Chandler, *supra* note 3, at 488.

48. *Id.* (quoting *Power Reactor Dev. Co. v. Int'l Union of Elec., Radio & Mach. Workers*, 367 U.S. 396, 405 (1961)).

49. Seth P. Cox, *The Nuclear Option: Promotion of Advanced Nuclear Generation as a Matter of Public Policy*, 5 APPALACHIAN NAT. RESOURCES L.J. 25, 49-50 (2011) (citing Paul M.



In 1989, the NRC proposed rules to establish a one-step licensing process.<sup>50</sup> The goal was to attract investors by assuring that all matters would be resolved at once, so that the process would not be drawn out indefinitely. Under the new process, applicants must receive an early site permit, a standardized design approval, and a license to build and begin operating postconstruction.<sup>51</sup> This “combined operating license” (COL) matches a preapproved, standard plant design<sup>52</sup> with a set of criteria customized to the particular utility’s operating plan and site.<sup>53</sup> The NRC must find these “acceptance criteria” satisfied postconstruction in order for a plant to begin operating without further action.<sup>54</sup> In order to initiate further review postconstruction, a petitioner must make a *prima facie* showing that one or more of the criteria have not been met.<sup>55</sup>

In 1990, the Nuclear Information Resource Service (NIRS) challenged the Commission’s licensing procedures on the theory that Congress mandated a two-step approach under the AEA.<sup>56</sup> The NIRS alleged that the new procedures “winnow[ed] down the issues to be heard” and that the AEA required postconstruction hearings to “allow a full opportunity to revisit material design, siting, and other issues discussed at the pre-approval or combined license stages.”<sup>57</sup> Ultimately, the United States Court of Appeals for the District of Columbia Circuit upheld the amendments to the licensing procedure. Judge Wald, in dissent, agreed with the majority’s observation, “[T]he Supreme Court has approved agency reliance on generic findings in tandem with a mechanism by which a party can present evidence that the prior determination should be set aside.”<sup>58</sup> However, in that strongly worded dissent, Judge Wald found, “That kind of radical departure from past licensing procedures requires congressional action” and that “not even the most strained of rationales” could support the majority’s conclusion

---

Murphy, *Nuclear Energy Summit: Panel on Financing of Nuclear Power Plants* (Oct. 8, 2008), [http://www.ita.doc.gov/td/energy/nuclear\\_murphy.pdf](http://www.ita.doc.gov/td/energy/nuclear_murphy.pdf); 10 C.F.R. §§ 52.1-52.303 (2011)).

50. Chandler, *supra* note 3, at 489 (citing 10 C.F.R. § 52.1 (2005)).

51. Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 54 Fed. Reg. 15,372 (Apr. 18, 1989) (to be codified at 10 C.F.R. pts. 2, 50-52, 170).

52. *Id.* § 52.54 (establishing that design approval is now standardized through a rulemaking procedure as opposed to approval on a case-by-case basis).

53. *Id.* § 52.39.

54. *Id.* § 52.97.

55. *Id.* § 52.103(b)(1).

56. Nuclear Info. Res. Serv. v. Nuclear Regulatory Comm’n, 969 F.2d 1169, 1172 (D.C. Cir. 1992) (en banc).

57. *Id.*

58. *Id.* at 1186 (Wald, J., dissenting).

that a postconstruction procedure was not required.<sup>59</sup> In passing the Energy Policy Act of 1992, Congress expressly authorized the COL licensing process,<sup>60</sup> though it remains the subject of much controversy.

In addition to streamlining the licensing process, the NRC also revised its adjudication procedures, which allow the Commission's licensing actions to be challenged. In place of a traditional process of discovery, by which petitioners could request a broad range of information from the utility and the NRC, the new procedures established a threshold standard of mandatory disclosure, beyond which there is no obligation to comply.<sup>61</sup> Furthermore, the new procedures allow only the presiding judge to question witnesses, either on his own initiative or in accordance with questions submitted by parties in advance.<sup>62</sup> Again, these procedural changes were challenged in court—this time, in the United States Court of Appeals for the First Circuit—and again, the procedures were found to satisfy the minimal procedural safeguards required by the APA.<sup>63</sup> However, the First Circuit also indicated that it was critical of the NRC's agenda. The court stated, "There is a victory here for the NRC, but it should be a cause for self-examination rather than jubilation."<sup>64</sup>

NRC rules impose further difficulty on petitioners by placing a heavy burden on those who seek to reopen a licensing proceeding that the Commission has deemed closed. A recent decision by the NRC board *In re Southern Nuclear Operating Co.*, reveals that the NRC does not take these standards lightly.<sup>65</sup> According to the Board:

Section 2.326(a) makes it clear that a motion to reopen will not be granted unless all of the following criteria are satisfied: (1) The motion must be timely. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented; (2) The motion must address a significant safety or environmental issue; and (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially. Additionally, pursuant to § 2.326(b), "[t]he motion must be accompanied by affidavits that set forth the factual and/or

---

59. *Id.* at 1187.

60. 42 U.S.C. § 2235(b) (2006).

61. Chandler, *supra* note 3, at 491 (citing Changes to Adjudicatory Process, 69 Fed. Reg. 2182 (Jan. 14, 2004); Michael Asimow, *Adjudication*, in DEVELOPMENTS IN ADMINISTRATIVE LAW AND REGULATORY PRACTICE 2004-2005, at 3 (Jeffrey S. Lubbers ed., 2006)).

62. *Id.*

63. Citizens Awareness Network, Inc. v. United States, 391 F.3d 338, 364 (1st Cir. 2004).

64. *Id.*

65. See *In re S. Nuclear Operating Co.*, Nos. 52-025-COL, 52-026-COL, 2011 WL 4502973, at \*4 (N.R.C. 2011).

technical bases for the movant's claim that the criteria of paragraph (a) of this section have been satisfied . . . . Each of the criteria must be separately addressed, with a specific explanation of why it has been met."<sup>66</sup>

In *Southern Nuclear*, three public interest groups, the Blue Ridge Environmental Defense League, Georgia Women's Action for New Directions, and the Center for a Sustainable Coast, petitioned the NRC to reopen a safety hearing on the proposed COL for Units 3 and 4 at the Vogtle Electric Generating Plant.<sup>67</sup> The complaint was fairly specific in relation to the overall scope of the project: it alleged that Southern Nuclear Company's license application failed to demonstrate that the facility's containment regime would protect against corrosion that might eventually lead to excessive leakage of radioactive waste.<sup>68</sup>

In rejecting the petition, the NRC board adhered strictly to the section 2.326 criteria, finding that the complaint was untimely because it was submitted beyond the statutory thirty-day window, that it lacked sufficient detail, and that it was not within the scope of a COL adjudicatory hearing.<sup>69</sup> The Board reasoned that the subject matter of the petition would have been more appropriately addressed in the rulemaking proceeding that lead to the approval of the standard design of the AP1000 reactor.<sup>70</sup> This determination was made despite the petitioners' claim that their safety concern was site-specific and could not therefore have been addressed during the rulemaking proceeding. They argued that the contractor working at the Vogtle plant had a history of ignoring problems with containment coatings and that the problem lay in the field application method used with the coatings, not in the design of the coatings.<sup>71</sup> In the end, the NRC deemed these arguments unsupported and insufficient.<sup>72</sup>

It is worth noting that the petitioners' complaint was not based on unlikely hypothetical scenarios. The nuclear industry has already experienced problems with corroded pipes leaking radioactive material into the soil and groundwater. In one instance, the Vermont Yankee plant was found to have two corroded pipes that were leaking a radioactive tritium into the soil.<sup>73</sup> The leaks were repaired, and an extensive soil,

---

66. *Id.* (quoting 10 C.F.R. § 2.326(a), (b) (2011)).

67. *Id.* at \*1.

68. *Id.*

69. *Id.* at \*7-9.

70. *Id.* at \*9.

71. *Id.* at \*10.

72. *Id.*

73. Director's Decision Under 10 CFR 2.206, *In re* Entergy Nuclear Vt. Yankee, LLC, DD-11-01, No. 50-271, at 3-5 (N.R.C. Jan. 27, 2011).

water, and agricultural inspection concluded that the leaks had not contributed to radioactive levels in excess of the NRC's approved levels.<sup>74</sup> However, the leaks caused serious concern among local citizens and should serve as a harbinger for future regulatory deficiencies.

Despite identifying a specific problem supported by an expert affidavit, the Vogtle petition was rejected by the administrative board, which "declin[ed the] offer to hunt for information that the agency's procedural rules require be explicitly identified and fully explained."<sup>75</sup> The NRC concluded by reassuring the petitioners that it "continues to evaluate the implications of the events in Japan on U.S. facilities, as well as to consider actions that may be taken as a result of lessons learned in light of those events."<sup>76</sup> "Particularly with respect to new reactor licenses," it observed, "we have the authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation."<sup>77</sup> The NRC's belief that it is adequately informed and staffed to make decisions independently is evident from its decisions and policy statements, but the Commission's ability to integrate evolving safety concerns into the one-step COL is dubious at best.

On February 9, 2012, the Vogtle 3 and 4 COLs were approved, marking the conclusion of the inaugural COL process and the first new license approval since 1978.<sup>78</sup> However, in a dissenting opinion, NRC Chairman Gregory Jaczko voted to deny the licenses, stating:

[U]ltimately, my responsibility is to make what I believe is the best decision for nuclear safety. I simply cannot authorize issuance of these licenses without any binding obligation that these plants will have implemented the lessons learned from the Fukushima accident before they operate.

....

... I do not support authorizing the issuance of COLs that will allow both construction and operation, without binding assurance that these issues will be addressed before the plant operates.<sup>79</sup>

---

74. *Id.* at 6-7.

75. *S. Nuclear Operating Co.*, 2011 WL 4502973, at \*4 (quoting Memorandum and Order (Ruling on Request To Admit New Contention), *In re* S. Nuclear Operating Co., LBP-10-21, Nos. 52-025-COL, 52-026-COL, at 26 (N.R.C. Atomic Safety & Licensing Bd. Nov. 30, 2010), available at <http://www.balch.com/files/upload/Vogtle%ASLB%11.30.10.pdf>).

76. *Id.* at \*11.

77. *Id.* (quoting *In re* Union Elec. Co. d/b/a Ameren Mo., CLI-11-05, No. 52-037-COL, at 24 (N.R.C. Sept. 9, 2011), available at <http://www.nrc.gov/reading-rm/doc-collections/commission/orders/2011/2011-05cli.pdf>).

78. Graves, *supra* note 1.

79. *In re* S. Nuclear Operating Co., Nos. 52-025-COL, 52-026-COL, 2012 WL 440403, at \*38 (N.R.C. 2012) (Chairman Jaczko, dissenting) (emphasis omitted).

The Chairman's statement should raise red flags about the existence of a significant regulatory void. His lack of confidence is particularly troubling given the NRC's confident defense of its policy changes at the time they were made. In 2004, the NRC received a comment that expressed concern over the petitioners' inability to conduct discovery during the NRC's "safety evaluation report" hearings and to introduce safety contentions freely during the licensing process as additional information, such as the NRC's safety reviews, became available to the public.<sup>80</sup> The NRC rejected the concerns stating, "The NRC staff has the independent authority, indeed the responsibility, to review all safety matters . . . . [T]he NRC may not issue a license until all appropriate safety findings have been made."<sup>81</sup> The question remains: if the NRC cannot force Southern Nuclear Company to implement newly discovered safety measures when the plants are completed in 2017, who can? The ultimate success of the COL program cannot be judged at this time, but substantial concerns have emerged from public interest groups, legislators, and from within the NRC itself.

*B. Public Guidance of NRC Enforcement: Power Uprates at the Vermont Yankee*

If the public is unable to guide the NRC in licensing and rulemaking on the front end, it may still challenge the industry standards set by the NRC and the enforcement of those standards. The following petition illustrates a public effort to secure adequate safety margins at the Vermont Yankee reactor. It provides an opportunity to examine the NRC's approach to oversight, as well as the public's difficulty in guiding agency action in this area.

The Vermont Yankee is a nuclear power station located in Vermont that currently produces 650 megawatts (MW) of electricity at full capacity.<sup>82</sup> In 2002, Entergy purchased the plant and quickly applied for an uprate which would allow it to produce 650 MW of power, a twenty percent increase from the originally licensed 540 MW.<sup>83</sup> In 2004 and 2006, respectively, the Vermont Public Service Board and the NRC approved the uprate.<sup>84</sup> However, the decision was highly controversial

---

80. Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004). These hearings are conducted by the NRC staff to make the requisite determination on whether a given application ensures safety.

81. *Id.* (citations omitted).

82. Entergy Nuclear Vt. Yankee, LLC v. United States, 95 Fed. Cl. 160, 174 (2010).

83. *Id.* at 167, 174.

84. *Id.* at 174.

and lead to a series of enforcement and rulemaking petitions by the New England Coalition on Nuclear Pollution (NEC), the “people’s advocate for safe energy since 1971.”<sup>85</sup> The mission of this group of citizens and scientists is to “investigate the safety, suitability, and environmental effects of nuclear power plants.”<sup>86</sup>

Pursuant to 10 C.F.R. section 2.206, which establishes procedures for challenging the Commission’s actions, the NEC filed a complaint alleging that the uprate approval constituted an abdication of the NRC’s responsibilities under the AEA.<sup>87</sup> Specifically, the NEC sought to compel the NRC to “order the licensee to lower the licensing basis peak cladding temperature [to no higher than 1832°F] in order to provide a necessary margin of safety.”<sup>88</sup> The NEC claimed the problem was urgent and “[could not] be addressed in any other available avenue of redress.”<sup>89</sup> The concern was that the uprate “increased the peak cladding temperature by well over the typically seen 20 degrees Fahrenheit,” noting “a real paper trail of opposition to the extended power uprate.”<sup>90</sup> The NEC also argued that the risk was “plant specific and [had] an immediate bearing on the safety margins at Vermont Yankee” that required “prompt NRC review and action.”<sup>91</sup>

The NEC’s fear was that in the event of a shutdown or loss of coolant, the plant would have excess heat to vent, which in combination with the “disproportionate increase in available fission products” could substantially increase the severity of an accident.<sup>92</sup> The petition relied on empirical data that indicated that the approved temperature could lead to a meltdown because it did not “provide a necessary margin of safety.”<sup>93</sup> The NEC urged that the “calculations that were done on behalf of Entergy did not take into account certified experimental data.”<sup>94</sup> Most notably, the NEC cited one experiment in which an “actual accident” had proven the 2060°F peak cladding temperature to be excessive.<sup>95</sup>

---

85. *History of the Coalition: The People’s Advocate for Safe Energy for Four Decades*, NEW ENG. COALITION ON NUCLEAR POLLUTION, <http://www.necnp.org> (follow the “About” hyperlink) (last visited Apr. 7, 2012).

86. *Id.*

87. *10 CFR 2.206 Petition: Vermont Yankee Nuclear Power Station RE Mark Leyse & Raymond Shadis*, U.S. NUCLEAR REG. COMMISSION 34-35 (June 23, 2010), <http://pbadupws.nrc.gov/docs/ML1018/ML101890014.pdf> [hereinafter *Leyse & Shadis*].

88. *Id.* at 11.

89. *Id.* at 15.

90. *Id.* at 16.

91. *Id.* at 12.

92. *Id.* at 15.

93. *Id.* at 17.

94. *Id.*

95. *Id.* at 18.

A representative of NEC, Mark Leyse, summarized his position: “there’s all this data out there that shows that it is unsafe. So that—that compromises public safety. That’s not what the public is guaranteed by the Nuclear Regulatory Commission.”<sup>96</sup> Another NEC representative, Thomas Saporito, expressed his disbelief at the NRC’s handling of the issue:

The public relies on the on-site NRC resident inspectors to be on the top of their toes 24/7 for our benefit. . . . Yet, the residents don’t do anything. The region doesn’t do anything. The regional administrator doesn’t even tell the public about a new leak of water coming from that plant, let alone about any concern about these isotopes that have already escaped into the environment.

So I’d like to know what the hell the NRC is doing? Are they monitoring this plant or are you just waiting for the reporters to bring this information to the public’s attention so that the public can somehow put the NRC, the government agency responsible for our public health and safety, between a rock and a hard spot to do something. This is indicative of an agency as a passive-reactive agency and not a proactive agency.<sup>97</sup>

Mr. Saporito analogized the situation to the BP Oil Spill, which was unfolding at the time. He compared the NRC to the Minerals Management Service (MMS), which had been charged by the Department of the Interior with overseeing the oil and gas industries.<sup>98</sup> Mr. Saporito explained, “There is no proactive government in the MMS. And the NRC is in the same position, but the consequences are much more dire because we have public health and safety where people can be killed and property damage that will be so extensive, people will never come back to their homes and their businesses.”<sup>99</sup>

At the conclusion of the teleconference, an NRC attorney asked the petitioners, “In what manner is your request before us, request for enforcement, what is the enforcement action that the NRC should take and again, what is the breach of the NRC’s rules or regulations or statutes by which we operate?”<sup>100</sup> NEC representative Raymond Shadis responded that he would “simply invoke the NRC’s charge under the Atomic Energy Act to protect the public health and safety,” and added, “[T]he permission of Vermont Yankee to continue in this unanalyzed or

---

96. *Id.* at 20.

97. *Id.* at 28.

98. *See id.* at 29.

99. *Id.*

100. *Id.* at 32.

poorly analyzed situation, condition, is certainly a violation of that charge.”<sup>101</sup>

Ultimately, the NRC dismissed the petition on the grounds that it was outside the scope of an enforcement proceeding because it was an issue common to all power plants, not just the Vermont Yankee.<sup>102</sup> However, the NRC attached the proposal to an ongoing rulemaking deliberation and published the NEC’s proposed limitation on peak fuel rod temperature in the Federal Register for comment.<sup>103</sup> The NRC’s choice to deem the issue worthy of attachment to an existing rulemaking petition was, in the words of Mr. Shadis, “not unprecedented . . . but very rare.”<sup>104</sup> The NEC’s enthusiasm over the result in this particular instance is indicative of the lack of success that public petitioners typically experience before the NRC. The original goal was to prompt an immediate reduction in fuel rod temperatures, but the NRC’s decision to consider the issue was viewed as a triumph.<sup>105</sup>

However, the more important observation to be gleaned from this exchange is the imbalance between the NRC and individual interest groups regarding resources such as staff and funding. The petition was brought years after the original uprate-licensing amendment was approved, but not because the data relied upon did not exist at the time. Rather, the delay was attributable to the fact that the NEC is a small organization with limited resources. As Mr. Shadis explained, “We could not, at that time, in the 60 days allowed, examine each and every issue coming out of the extended power uprate application in detail.”<sup>106</sup> Much like the Vogtle dispute, the scenario here reveals a dedicated interest group with valid concerns struggling to keep up with the narrowing time frames and increasingly stringent evidentiary burdens imposed by the NRC. True, the NRC still offers a variety of ways for the public to participate in and challenge its decisions.<sup>107</sup> However, these forums have become more difficult to enter, and, as the previous example illustrates,

---

101. *Id.* at 35.

102. Press Release, New Eng. Coal. on Nuclear Pollution, Two Coal. VY Enforcement Petitions Gain Traction at NRC: Third Petition Filed on Latest Feedwater Leak (Nov. 7, 2011), [http://www.necnp.org/files/docs/2010-11-17\\_Press\\_Release\\_2.206.doc](http://www.necnp.org/files/docs/2010-11-17_Press_Release_2.206.doc).

103. *Id.*; see Mark Edward Leyse; Mark Edward Leyse and Raymond Shadis, on Behalf of the New England Coalition; Petitions for Rulemaking, 75 Fed. Reg. 66,007 (Oct. 27, 2010) (to be codified at 10 C.F.R. pt. 50).

104. Press Release, *supra* note 102 (quoting Raymond Shadis, NEC Technical Advisor).

105. *Id.*

106. *Leyse & Shadis, supra* note 87, at 14.

107. See generally Richard Goldsmith, *Regulatory Reform and the Revival of Nuclear Power*, 20 HOFSTRA L. REV. 159 (1991).



there are good reasons to doubt the NRC's capacity to act on its own initiative.

The various NRC proceedings provide the primary forum for affecting federal oversight of the nuclear industry. However, the public can affect nuclear policy through state and local legislatures as well, under the powers reserved by the AEA.<sup>108</sup> Given the diminishing avenues of redress available through the NRC, it is essential that the traditional authority of the states be honored and protected as we move into the modern nuclear era. The recent decision in *Vermont Yankee* provides a new opportunity for examining the proper role of the courts in this regulatory framework, from both a legal and practical standpoint. The next Part will briefly discuss the Vermont General Assembly's (VGA) efforts to obtain control over the construction of new spent fuel storage facilities and the renewal of nuclear plant operating licenses. Subpart A will examine the Vermont district court's decision to invalidate Vermont's laws, and Subpart B will examine the implications for public input and control through state legislatures.

#### IV. *VERMONT YANKEE* AND THE FUTURE OF PUBLIC AGENCY IN NUCLEAR REGULATION

Entergy acquired ownership of the Vermont Yankee nuclear facility (VY) in 2002 after signing a memorandum of understanding (MOU) with the Vermont Department of Public Service that made any future relicensing decision conditional on the Vermont Public Service Board's (VPSB) approval.<sup>109</sup> VY then signed a power purchasing agreement with the State of Vermont under which the plant would continue to provide about one-third of Vermont's electrical power as it had since 1972.<sup>110</sup> The agreement, effective for ten years, was set to expire in 2012.<sup>111</sup>

In 2004 and 2006, the VPSB and the NRC, respectively, approved an uprate which would allow the plant to increase maximum production twenty percent from 540 megawatts of power to 650 megawatts.<sup>112</sup> In

---

108. See 42 U.S.C. § 2021(b) (2006).

109. Entergy Nuclear Vt. Yankee v. Shumlin, No. 1:11-cv-99(jgm), 2012 WL 162400, at \*3 (D. Vt. Jan. 19, 2012).

110. *Id.* at \*2, \*4 (citing Opinion and Order at 3-5, 8, Investigation into Gen. Order No. 45 Notice Filed by Vt. Yankee Nuclear Power Corp. re: Proposed Sale of Vt. Yankee Nuclear Power Station to Entergy Nuclear Vt. Yankee, LLC & Related Transactions, No. 6545 (Vt. Pub. Serv. Bd. June 13, 2002)).

111. *Id.* at \*4.

112. Entergy Nuclear Vt. Yankee, LLC v. United States, 95 Fed. Cl. 160, 174 (2010); see also Rod Adams, *GE BWR's Like Oyster Creek and Vermont Yankee Were Originally Designed for Power Uprate to 620 MWe*, ATOMIC INSIGHTS (Feb. 25, 2010), <http://atomicinsights.com/2010/>

exchange, Entergy agreed to contribute roughly \$6 million to “State Benefit Funds,” which would serve several purposes, including environmental welfare.<sup>113</sup> Because this uprate would exhaust VY’s existing spent fuel storage space more rapidly than originally planned, in 2006 Entergy petitioned the VPSB for a permit to build an on-site dry cask storage facility, which the NRC had already approved.<sup>114</sup> As previously discussed, the petition became the subject of much opposition in the state legislature, as well as before the VPSB and NRC.<sup>115</sup> Without approval, VY would be forced to cease operations.<sup>116</sup>

#### A. Vermont’s Legislation

In May of 2005, the Vermont House introduced a bill that became Act 74, Dry Cask Storage Authorization of 2005 (H.545).<sup>117</sup> As first introduced, the bill “noted that the federal government ‘is in breach of contract for its failure’ to provide for ‘disposal of spent nuclear fuel.’”<sup>118</sup> The original bill would also allow Vermont to charge Entergy for the “privilege of storing spent nuclear fuel,”<sup>119</sup> though that provision was later deleted.<sup>120</sup> This charge would have partially funded a “Clean Energy Development Fund,” established under section 6523 of the final version of the Act.<sup>121</sup> Per section 6523, this fund would “promote ‘cost-effective and environmentally sustainable’ power ‘for the long-term benefit of Vermont electric customers.’”<sup>122</sup> The enacted version also required that VY receive a “certificate of public good” (CPG) from the VPSB before beginning “construction or establishment of any new storage facility for spent nuclear fuel,” though it also noted that VY would have to obtain approval from the general assembly to store spent fuel generated after

---

02/ge-bwrs-like-oyster-creek-and-vermont-yankee-were-originally-designed-for-power-uprate-to-620-mwe.html.

113. *Vt. Yankee*, 2012 WL 162400, at \*5 (citing *Entergy Nuclear*, 95 Fed. Cl. at 174).

114. *Id.* at \*5, \*11 (citing Opinion and Order at 5, 18, Petition of Entergy Nuclear Vt. Yankee, LLC & Entergy Nuclear Operations, Inc. for a certificate of Pub. Good to Construct a Dry Fuel Storage Facility at the Vt. Yankee Nuclear Power Station, in Vernon, Vt., No. 7082 (Vt. Pub. Serv. Bd. Apr. 26, 2006)).

115. *See id.* at \*6; *Leyse & Shadis*, *supra* note 87, at 16-17.

116. *Vt. Yankee*, 2012 WL 162400, at \*5 (citing Opinion and Order, *supra* note 114, at 4, 16).

117. *Id.* at \*5-7.

118. *Id.* at \*7 (citing Vt. H. 545, 2005-2006 Gen. Assemb. (Vt. 2005)).

119. *Id.* at \*7 (citing Vt. H. 545 § 6521(a)(4)).

120. *See* VT. STAT. ANN. tit. 10, § 6521 (2011).

121. *Vt. Yankee*, 2012 WL 162400, at \*8, \*10 (citing Vt. H. 545 § 6523; VT. STAT. ANN. tit. 10, § 6523). The court refers to the old version of section 6523, which has been recodified. VT. STAT. ANN. tit. 30, § 8015 (2011).

122. *Vt. Yankee*, 2012 WL 162400, at \*10 (quoting VT. STAT. ANN. tit. 10, § 6523(c)).

March 21, 2012.<sup>123</sup> The final bill also required the VPSB to find, prior to commencement of construction, that “[a]dequate financial assurance exists for the management of spent fuel’ for as long as [the storage facility] is located in Vermont.”<sup>124</sup>

On June 21, 2005, Entergy and the Department of Public Service entered into an MOU that required Entergy to petition the VPSB for a CPG prior to commencing construction of the storage facilities.<sup>125</sup> The agreement also recognized that “the legislation was contingent upon the company’s agreements under the MOU, ‘to fund a Clean Energy Development Fund’ with quarterly ‘payments calculated to total \$15,625,000.’”<sup>126</sup> Notably, the MOU also required Entergy to “expressly waive[] any federal preemption claim to prevent enforcement of its obligations under the memorandum.”<sup>127</sup> This MOU is significant because Vermont’s entire energy policy was formed on the basis of numerous assumptions and considerations regarding nuclear power. However, as will be shown, these considerations were not viewed by the court as significant legislative factors.

On June 22, 2005, the day after both Act 74 and the MOU went into effect, Entergy filed a petition with the VPSB to build dry cask storage.<sup>128</sup> After reviewing briefs, expert testimony, and over 500 public comments, the VPSB granted the petition, noting that the “single most significant factor” in granting the petition was the realization that without the dry cask facilities, VY would be forced into “early shutdown[, which] could impose substantial costs on Vermont ratepayers.”<sup>129</sup> The petition was granted on the condition that Entergy was financially competent to manage the spent fuel through decommissioning and also to restore the site to “greenfield condition.”<sup>130</sup> Furthermore, an amendment to the Spent Fuel Management Plan was required, which explicitly established that parties would act on the “assumption the DOE would not remove fuel as scheduled.”<sup>131</sup> These discussions about dry cask storage, which were examined by the Vermont court, were largely related to ensuring the

---

123. *Id.* at \*9-10 (quoting VT. STAT. ANN. tit. 10, §§ 6522(c)(4), 6523(c)).

124. *Id.* at \*9 (first alteration in original) (quoting VT. STAT. ANN. tit. 10, § 6522(b)).

125. *Id.* at \*11.

126. *Id.*

127. *Id.*

128. *Id.* (citing Opinion and Order, *supra* note 114, at 5).

129. *Id.* (quoting Opinion and Order, *supra* note 114, at 3-8, 12, 34) (internal quotation marks omitted).

130. *Id.* at \*12 (citing Opinion and Order, *supra* note 114, at 4-5, 89-91).

131. *Id.*

reliable provision of power and the continuation of affordable rates for Vermont customers.

In January of 2006, Entergy filed for a federal license renewal with the NRC.<sup>132</sup> Shortly thereafter, the Vermont Senate began hearings on proposed Act 160, which would condition the NRC's approval of a license renewal on a CPG from the VPSB, and also a determination by the VGA that the relicensing "will promote the general welfare."<sup>133</sup> After lengthy floor debate, a final law was enacted that required the VPSB "to conduct fact-finding, permit public comment, and perform analysis for two years, and then report back to the legislature no later than March 2010."<sup>134</sup> Then, the legislature would "consider whether to approve continued licensing."<sup>135</sup> Section 248(e)(2) of the Act states:

No nuclear energy generating plant within this state may be operated beyond the date permitted in any certificate of public good granted pursuant to this title, including any certificate in force as of January 1, 2006, unless the general assembly approves and determines that the operation will promote the general welfare, and until the public service board issues a certificate of public good under this section. If the general assembly has not acted under this subsection by July 1, 2008, the board may commence proceedings under this section and under 10 V.S.A. chapter 157, relating to the storage of radioactive material, but may not issue a final order or certificate of public good until the general assembly determines that operation will promote the general welfare and grants approval for that operation.<sup>136</sup>

In effect, the law conferred an absolute veto power upon the VGA to prevent continued operations at the VY. Section 254(b) of Act 160 provides a list of objectives to be carried out by the VPSB during its fact-finding process, including to "facilitate public discussion of long-term economic and environmental issues" and to "assess the potential need for the operation," its "long-term economic and environmental benefits, risks, and costs," and the "practical alternatives that may be more cost-effective or better promote the general welfare."<sup>137</sup> The VPSB's conclusions on these issues would, in theory, serve as the basis for the VGA's ultimate approval or denial. This is confirmed by the uncodified purpose section of Act 160, which states that the VGA will grant a

---

132. *Id.*

133. *Id.* at \*12-13.

134. *Id.* at \*15.

135. *Id.*

136. *Id.* at \*19 (quoting VT. STAT. ANN. tit. 30, § 248(e)(2) (2011)).

137. *Id.* at \*20 (quoting VT. STAT. ANN. tit. 30, § 254(b)(1)) (internal quotation marks omitted).

license only after considering “pertinent factors, including the state’s need for power, the economics and environmental impacts of long-term storage of nuclear waste, and choice of power sources among various alternatives.”<sup>138</sup> The purpose section also incorporated the ongoing concern with spent fuel storage: “It is appropriate that the spent fuel storage issue be framed and addressed as a part of the larger societal discussion of broader economic and environmental issues relating to the operation of a nuclear facility in the state . . . .”<sup>139</sup>

Therefore, it would appear clear from the original text of Act 160 that the VGA correctly identified the inherently broad scope of issues that must be considered when discussing a nuclear power plant’s role in the twenty-year future of a state’s energy industry.

On June 5, 2008, Vermont’s governor signed another piece of legislation into law: Act 189, “An Act Relating to a Comprehensive Vertical Audit and Reliability Assessment of the Vermont Yankee Nuclear Facility.”<sup>140</sup> The Act’s stated purpose was “to provide for a thorough, independent, and public assessment of the reliability of the systems, structures, and components of the Entergy Nuclear Vermont Yankee facility” to determine any reliability issues “associated with operating [the facility] for an additional 20 years after its scheduled closure in 2012.”<sup>141</sup> After conducting a five-year investigation of the facility, the NRC granted the license renewal on March 21, 2011.<sup>142</sup> In anticipation of interference by the Vermont government, Entergy filed suit in the United States District Court for the District of Vermont.<sup>143</sup>

### *B. Entergy Nuclear Vermont Yankee v. Shumlin*

On April 18, 2011, Entergy filed for a permanent injunction and declaration that Vermont Acts 74, 160, and 189 were grounded in safety concerns, rendering them federally preempted under the AEA.<sup>144</sup> In the end the court agreed, stating,

The provision requiring affirmative legislative approval to store spent nuclear fuel after March 21, 2012 . . . enacted with radiological safety purposes in mind, and having the effect of giving the General Assembly the unreviewable power to prohibit storage of fuel, and therefore to prohibit

138. *Id.* at \*21 (quoting 2006 Vt. Acts & Resolves No. 160 § 1(a)).

139. *Id.* (quoting Vt. S. 124, § 1(d)).

140. *Id.* at \*24 (quoting 2008 Vt. Acts & Resolves No. 189 § 1).

141. *Id.* (quoting 2008 Vt. Acts & Resolves No. 189 § 1(b), (d)).

142. *Id.* at \*29.

143. *See id.* at \*1, \*29.

144. *See id.* (citing U.S. CONST. art. VI; 42 U.S.C. §§ 2011-2296b-7 (2006)).

continued operation for preempted radiological safety reasons, is preempted under the AEA.<sup>145</sup>

In reaching this decision, the court discussed, at length, the Supreme Court's 1983 decision in *Pacific Gas*, which upheld similar state legislation. First, the court observed that in *Pacific Gas*,

[t]he Supreme Court rejected the argument that the preempted field included *all* regulation governing construction and operation of a nuclear plant, and defined the federal government's field as regulation of "the radiological safety aspects involved in . . . construction and operation," while "the States retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost and other related state concerns."<sup>146</sup>

Next, the court relied on *Pacific Gas* to conclude that its next task was to "analyze the purpose motivating the state statute at hand."<sup>147</sup>

Like Entergy, the utilities in *Pacific Gas* argued that California's moratorium was preempted because it was "predicated on safety concerns."<sup>148</sup> Curiously, the court in *Vermont Yankee* observed the Supreme Court's deference to stated legislative intent, which the Court demonstrated when it held, "[W]e should not become embroiled in attempting to ascertain California's true motive."<sup>149</sup> Furthermore, the Vermont district court recognized that the Supreme Court had readily accepted "'California's avowed economic purpose as the rationale for enacting [the moratorium]. . . .' The . . . Court did not articulate precisely how it ascertained the economic rationale behind the challenged statute. . . . [It] indicated it was placing 'considerable confidence' in the lower court's . . . reliance on [a California legislative committee report] . . . where the report recited the economic purpose."<sup>150</sup>

Given the court's heavy reliance on *Pacific Gas* to establish its scope of review, one might expect the court to declare next that, like the Court in *Pacific Gas*, it too would "accept the avowed economic purpose" on the face of Vermont's legislation. However, the court did not

---

145. *Id.* at \*43.

146. *Id.* at \*32 (quoting *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 205 (1983)).

147. *Id.* at \*33.

148. *Pac. Gas*, 461 U.S. at 204.

149. *Vt. Yankee*, 2012 WL 162400, at \*34 (quoting *Pac. Gas*, 461 U.S. at 214, 216).

150. *Id.* (first alteration in original) (quoting *Pac. Gas*, 461 U.S. at 214).

defer to Vermont's statement of purpose but instead relied on a group of Supreme Court preemption precedents unrelated to the AEA.<sup>151</sup>

In the Vermont district court's view:

[W]here multiple purposes are advanced for a statute [and] it is evident the statute was motivated, *even in part*, by an impermissible purpose, the burden shifts to the [d]efendants to establish that the same decision would have resulted from the other purposes motivating the legislature, had the impermissible purpose not been considered.<sup>152</sup>

Elaborating further on its perceived judicial role, the court quoted *McCreary County, Kentucky v. American Civil Liberties Union of Kentucky*, "The inquiry looks to the plain meaning of the statute's words, enlightened by their context and the contemporaneous legislative history as well as the specific sequence of events leading to [its] passage."<sup>153</sup> The district court ultimately sought to reconcile its approach with that of *Pacific Gas*, stating, "This framework is in keeping with *Pacific Gas*, where the economic purpose professed in the legislative history was plausibly served by the moratorium at issue."<sup>154</sup> However, a closer examination reveals that the district court's framework is incompatible with *Pacific Gas* and while the distinction may appear subtle, it has tremendous implications for public agency and policy formulation through state legislatures.

### C. Implications for Public Agency in Nuclear Regulation

As an initial observation, the Vermont district court's characterization of the proper preemption framework is internally inconsistent. On one hand, the court suggests that the existence of evidence casting doubt on the sincerity of a legislature's expression of its intent shifts the burden to the legislature to prove that permissible concerns were sufficient to prompt the legislation.<sup>155</sup> On the other hand, the court seems to suggest that if a law's stated purpose can be "plausibly served" by that law, a court's review is at its end.<sup>156</sup> The burden entailed in making the former determination is far more technical and speculative

---

151. *Id.* at \*42 (citing *Village of Arlington Heights v. Metro. Hous. Dev. Corp.*, 429 U.S. 252, 271 n.21 (1977) (addressing racially motivated zoning laws); *Mt. Healthy City Sch. Dist. Bd. of Educ. v. Doyle*, 429 U.S. 274, 285-86 (1977) (concerning First Amendment issues)).

152. *Id.* at \*36 (emphasis added).

153. *Id.* at \*39 (alteration in original) (quoting *McCreary County, Kentucky v. Am. Civil Liberties Union of Ky.*, 545 U.S. 844, 862 (2005)) (internal quotation marks omitted).

154. *Id.* at \*36.

155. *See id.*

156. *See id.*

than determining whether a law, as written, can “plausibly serve” its *professed* purpose.

The distinction is not minor, and is in effect the difference between states having some authority or none. A “plausible nexus” standard like that in *Pacific Gas* requires only that (1) the “avowed purpose” of the legislation addresses a permissible area of state regulation, (2) *some* evidence exists that a characterization of the issue as economic is reasonable, and (3) the legislation could plausibly enable a state to address the suggested target of the law.<sup>157</sup> In essence, *Pacific Gas* established this three-prong approach to analyzing state nuclear legislation. The Court determined that (1) California’s “avowed economic purpose” was to avoid economic risk by delaying the construction of nuclear plants until after a permanent waste facility was functional,<sup>158</sup> (2) that the absence of a permanent waste facility was a legitimate economic concern according to *one* state legislative committee report,<sup>159</sup> and (3) that the moratorium could, in fact, mitigate against unwanted economic risk by preventing the construction and operation of an inherently risky enterprise within the state.<sup>160</sup>

Had the Vermont district court applied the law in a manner consistent with *Pacific Gas*, its analysis might read something like this: (1) the stated purpose of Act 160 is to ensure that licenses be renewed only after “full, open, and informed public deliberation and discussion with respect to pertinent factors, including the state’s need for power, the economics and environmental impacts of long-term storage of nuclear waste, and choice of power sources among various alternatives”;<sup>161</sup> (2) evidence in the record supports characterization of these goals as economic<sup>162</sup> in nature; and (3) by retaining ultimate authority to “grant

---

157. See *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 213-16 (1983).

158. *Id.* at 213-14, 216.

159. *Id.* at 213-14 (quoting *Pac. Legal Found. v. State Energy Res. Conservation & Dev. Comm’n*, 659 F.2d 903, 925 (9th Cir. 1981), *aff’d*, 461 U.S. 190 (1983)) (affirming the United States Court of Appeals for the Ninth Circuit’s conclusion that the moratorium was “directed towards purposes other than protection against radiation hazards” because under the moratorium California would have no authority to pass judgment on the safety of a facility, only its existence).

160. *Id.* at 214 (explaining that a demonstrated method of waste disposal would lift economic fears and uncertainties relating to the potential closure of facilities due to inadequate storage).

161. *Vt. Yankee*, 2012 WL 162400, at \*21 (quoting 2006 Vt. Acts & Resolves No. 160 § 1(a)).

162. See *id.* at \*41, \*43. The legislature’s discussion of a clean energy fund, waste disposal uncertainties, power supply, and compensation for environmental liability are just a few examples of valid state concerns addressable by a VPSB independent audit and subject to VGA approval. See *id.*



the approval or deny the approval of [license renewal and dry cask construction] concurrently,”<sup>163</sup> the law “plausibly serves” its stated purpose by allowing the VGA to deny a license in light of the identified concerns with the economics of power supply. However, the district court did not discuss whether the enacted legislation could plausibly serve a valid state concern, which it absolutely could do. Instead, it focused almost entirely on determining whether the suggested purpose was sufficient to motivate the enactment of the laws at hand.<sup>164</sup>

Though *Pacific Gas* and *Vermont Yankee* both agree that state legislation “grounded in” safety concerns is preempted, the phrase “grounded in” takes on an entirely different meaning in each case.<sup>165</sup> Quoting *Pacific Gas*, the Vermont district court stated, “Given that a moratorium ‘grounded in safety concerns’ would be preempted, the Court found it ‘necessary to determine whether there is a non-safety rationale’ for the moratorium.”<sup>166</sup> As the court observed, California was able to satisfy the requisite “non-safety rationale” by “point[ing] to a state legislative committee report stating the waste disposal problem was largely economic.”<sup>167</sup> Therefore, in the Supreme Court’s view, the moratorium was not “grounded in” safety concerns. In the *Pacific Gas* context, “grounded in” seems to be synonymous with “explicitly concerned with.”

In contrast, the Vermont district court’s definition of “grounded in” seems to mean “primarily motivated by.” Because it determined radiological safety concerns to be the “primary motivation among others advanced for Act 160,”<sup>168</sup> the court invalidated a law enabling the VGA to “[choose] among various alternatives” in light of a “full, open, and informed public deliberation” regarding “the state’s need for power [and] the economics and environmental impacts of long-term storage of nuclear waste.”<sup>169</sup> Unlike the Court in *Pacific Gas*, the Vermont district court was not satisfied by the finding of a nonsafety rationale, as evidenced by the fact that *multiple* nonsafety rationales were identified in both the record and the legislative text.<sup>170</sup> Even viewed in combination, these rationales were insufficient to “persuade[] the [c]ourt that the legislature would have enacted the provision requiring legislative

---

163. *Id.* at \*21 (quoting 2006 Vt. Acts & Resolves No. 160 § 1(f)).

164. *See id.* at \*41.

165. *See id.* at \*33-34 (quoting *Pac. Gas*, 461 U.S. at 212-13).

166. *Id.* at \*34 (quoting *Pac. Gas*, 461 U.S. at 213).

167. *Id.*

168. *Id.* at \*42.

169. *Id.* at \*21 (quoting 2006 Vt. Acts & Resolves No. 160 § 1(a)).

170. *Id.* at \*41, \*43.

approval . . . had the legislature not also been motivated to regulate radiological safety.”<sup>171</sup>

The district court was correct in observing that blind deference to a law’s stated purpose enables states to “nullify nearly all unwanted federal legislation by simply publishing a legislative committee report articulating some state interest or policy—other than frustration of the federal objective—that would be tangentially furthered by the proposed state law.”<sup>172</sup> In the court’s view, being prohibited from inspecting legislative intent would render the court “remiss.”<sup>173</sup> This is the crux of the decision, and while worthy of discussion, the argument that this potential for legislative abuse mandates judicial intervention in AEA preemption cases was explicitly rejected in *Pacific Gas* when the Supreme Court held:

[I]nquiry into legislative motive is often an unsatisfactory venture. What motivates one legislator to vote for a statute is not necessarily what motivates scores of others to enact it. Second, it would be particularly pointless for us to engage in such inquiry here when it is clear that the States have been allowed to retain authority over the need for electrical generating facilities *easily sufficient* to permit a State so inclined to halt the construction of new nuclear plants by refusing on economic grounds to issue certificates of public convenience in individual proceedings. *In these circumstances, it should be up to Congress to determine whether a State has misused the authority left in its hands.*

Therefore, we accept California’s *avowed* economic purpose as the rationale for enacting § 25524.2. Accordingly, the statute lies outside the occupied field of nuclear safety regulation.<sup>174</sup>

The concurrence by Justice Blackmun succinctly described the power-sharing regime created under the AEA: “In short, there is an important distinction between the threshold determination whether to permit the construction of new nuclear plants and, if the decision is to permit construction, the subsequent determinations of how to construct and operate those plants.”<sup>175</sup> The majority opinion in *Pacific Gas* makes clear that an individual state’s choice to reject nuclear power is absolutely a decision within its purview that is not voidable simply because it conflicts with the AEA’s purpose of “encourag[ing] widespread

---

171. *Id.* at \*43.

172. *Id.* at \*35 (quoting *Greater N.Y. Metro. Food Council, Inc. v. Giuliani*, 195 F.3d 100, 108 (2d Cir. 1999)) (internal quotation marks omitted).

173. *Id.* at \*37.

174. *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 216 (1983) (emphasis added) (citation omitted).

175. *Id.* at 225-26 (Blackmun, J., concurring).

participation in the development and utilization of atomic energy for peaceful purposes.”<sup>176</sup> Furthermore, the decision is clear that even a superficial economic rationale is sufficient to satisfy an inquiry into legislative purpose.

*D. The Adequacy of the AEA in the Modern Energy Landscape*

While it is possible that the broader environmental and energy regulatory framework has evolved over time in a way that would justify enlargement of the judiciary’s role at the expense of state discretion, the Vermont district court rejected the opportunity, or perhaps more accurately, the need to identify how modern circumstances justify such a major deviation from *Pacific Gas*. The district court considered the facts at hand to be “unique circumstances” and rightly observed that “the energy landscape has changed since the Supreme Court’s decision in *Pacific Gas*.”<sup>177</sup> However, the only distinction it identified was Vermont Yankee’s status as a “merchant plant free to sell electricity wholesale to any customer in the interstate market.”<sup>178</sup> According to the district court, “While this status has not entirely displaced state regulation, the range of issues subject to state regulation *may* have narrowed.”<sup>179</sup> However, the court provided no further explanation, concluding that the demarcation of appropriate limitations on state authority in the absence of AEA preemption was a “question that is not before this [c]ourt.”<sup>180</sup>

Presumably, the court meant that Congress should address any necessary changes to the AEA power-sharing mechanism directly, which it has not done. However, modern circumstances may justify a change to the AEA. For example, where the electric industry was once vertically integrated, with most power provided by in-state generators, deregulation has led to regionally integrated power markets where wholesalers often “wheel” larger portions of supply to utilities and customers across state lines.<sup>181</sup> Therefore, from the viewpoint of a state legislator, decisions regarding the economic impact or need for any given plant may be less significant. Furthermore, a state’s ability to prevent a facility from operating may now affect a larger number of nonconstituent electricity consumers, though Vermont Yankee still sells roughly half of its power

---

176. *Id.* at 221-23 (majority opinion) (quoting 42 U.S.C. § 2013(d) (2006)).

177. *Vt. Yankee*, 2012 WL 162400, at \*38, \*43.

178. *Id.* at \*38.

179. *Id.* (emphasis added).

180. *Id.*

181. YERGIN, *supra* note 22, at 384.

in-state.<sup>182</sup> Deregulation has also allowed markets to set prices, a change which means that nuclear energy may become an imprudent choice of power if the price of domestic natural gas continues to bottom out. Complicating the analysis further is the uncertainty over climate change regulation, which could have a tremendous impact on the preferability of nuclear energy over high-emitting sources like coal and natural gas. Determining exactly how these considerations should affect the balance of power under the AEA is a difficult task, and this Comment does not offer a detailed solution.

However, what is clear is that the federal government has continued to maintain a commitment to nuclear power even after the basic assumptions underlying its existence have been destroyed.<sup>183</sup> If the industry could operate without accident, the public would have little reason to object. In the past, because the assumption was that a federally chosen permanent waste repository could safely store highly radioactive waste and spent fuel, concerns over human and environmental safety were considered naive.

However, all of these assumptions have proven false and local governments now have ample grounds for opposition. Given that the EPA of 2005 extended the Price-Anderson Act's cap on industry liability,<sup>184</sup> states will automatically shoulder risks in the event of a nuclear accident. In the words of the World Nuclear Association, "In essence this limitation recognizes the benefits of nuclear power and the tacit acceptance of the risks a State takes by permitting power plant construction and operation, as with other major infrastructure."<sup>185</sup> This risk is exacerbated by the fact that states will continue to store more nuclear waste on-site as the federal government continues its embarrassing seventy-year failure to establish a permanent waste repository.<sup>186</sup> Furthermore, the implications of nuclear generation for

---

182. *Vt. Yankee*, 2012 WL 162400, at \*2 (stating that fifty-five percent of the Vermont Yankee's electricity is consumed in Vermont).

183. See *Nuclear Giveaways in the Energy Policy Act of 2005*, PUB. CITIZEN, <http://www.citizen.org/documents/NuclearEnergyBillFinal.pdf> (last visited Apr. 7, 2012); *Obama Renews Commitment to Nuclear Energy*, MSNBC.COM (Feb. 16, 2010, 2:54 PM), [http://www.msnbc.msn.com/id/35421517/ns/business-oil\\_and\\_energy/t/obama-renews-commitment-nuclear-energy/](http://www.msnbc.msn.com/id/35421517/ns/business-oil_and_energy/t/obama-renews-commitment-nuclear-energy/).

184. Pub. L. No. 109-58, §§ 602-608, 119 Stat. 594, 779-81 (2005) (codified as amended at 42 U.S.C. § 2210 (2006)).

185. *Liability for Nuclear Damage*, WORLD NUCLEAR ASS'N, <http://www.world-nuclear.org/info/inf67.html> (last updated Mar. 2012).

186. BLUE RIBBON COMM'N ON AMERICA'S NUCLEAR FUTURE, DRAFT REPORT TO THE SECRETARY OF ENERGY 19, 72 (July 29, 2011), [http://brc.gov/sites/default/files/documents/brc\\_draft\\_report\\_29jul2011\\_0.pdf](http://brc.gov/sites/default/files/documents/brc_draft_report_29jul2011_0.pdf) (stating that the federal government needs to establish a permanent waste repository urgently but is not close to doing so).

power reliability and costs continue to affect local ratepayers who depend on nuclear facilities for a substantial portion of their electricity. If these traditionally recognized rationales for state control are not enough, the recent Fukushima accident should illustrate the catastrophic economic and psychological impact a reactor accident can have on local governments and citizens. To the chagrin of some Vermont legislators, no form of compensation exists for the risk faced by those living in the vicinity of an aging nuclear reactor.<sup>187</sup> In view of these considerations, it seems that any change in the AEA power-sharing scheme should buttress state authority, not diminish it.

However, absent Congressional clarification or a meaningful distinction in any specific case, *Pacific Gas* remains instructive on what level of deference should be given to states in AEA preemption cases. Still, *Vermont Yankee* makes it clear that the text of the AEA is ambiguous enough to permit unlimited judicial inquiry into state legislative intent, which means that a determination of preemption in any case may reflect the judge's own opinions about federalism or energy policy.

Therefore, at a minimum, Congress should codify *Pacific Gas's* holding that states have an absolute veto power over nuclear operation and thereby explicitly foreclose judicial inquiry into legislative purpose.<sup>188</sup> This would not necessarily doom the nuclear industry, as should be evident from the fact that the Georgia legislature is not seeking to prevent the construction of the new Vogtle Units. It is simply unrealistic to equate broader state authority over nuclear energy with the certain demise of the industry; and even if states did proceed to suffocate the industry entirely, Congress could always revisit the AEA at a later time. At present, however, it appears that an absolute grant of state licensing authority would allow states like Vermont to delay the operation of risky plants while allowing operations that better reflect evolving safety considerations and technology to proceed.<sup>189</sup> Such an arrangement will force out-of-state plant owners to consider local concerns adequately with an eye to the local government's eventual referendum on continued operations. In sum, the fatal ambiguity of the AEA should be amended to reflect *Pacific Gas* so that adequate consideration of the public welfare will continue.

---

187. See *Vt. Yankee*, 2012 WL 162400, at \*41.

188. See *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 205 (1983).

189. Hope M. Babcock, *Can Vermont Put the Nuclear Genie Back in the Bottle: A Test of Congressional Preemptive Power*, 39 *ECOLOGY L.Q.* (forthcoming 2012).

*E. Implications for Effective Policy Formulation*

As the previous Parts have shown, nuclear regulation faces persistent challenges involving economics, safety, health, and the environment. In order to make progress on these issues, the public must continue to guide and inform policy deliberation, and conversely, regulators and politicians in both the federal and state governments must continue to inform the public. The information and debate that citizens bring to their local legislatures have served to improve the quality of nuclear regulation and the effectiveness of the agencies that enforce these regulations. In addition to restricting the scope of state authority, *Vermont Yankee* jeopardizes the existence of the open, comprehensive discussion facilitated by state governments, which is an integral aspect of the regulatory process.

Although the NRC is staffed with scores of nuclear scientists, engineers, and energy experts, it does not always have complete information. As much as one might want the NRC to be omniscient given its exclusive responsibility over safety, the NRC is, to some extent, informed and guided by public information and pressure.<sup>190</sup> As the previous discussion on uprate safety deliberation illustrated, nuclear issues are controversial, highly technical, and have dire implications for safety. The fact that the NRC considered data from a public interest group significant enough to solicit public comment on the matter shows that public institutions can, occasionally, have a direct impact on agency policy.<sup>191</sup> The interaction brought information to the regulators' attention and put pressure on the NRC to remain proactive. When a citizen group goes on record at the NRC, asking "What the hell is the NRC doing?,"<sup>192</sup> the NRC is reminded to act preventatively to avoid appearing inadequate.

The Vermont Yankee uprate was a major subject of debate in the VGA as well. As Vermont state senator Peter Shumlin stated, "[W]hen I was a private citizen and you all were talking about the uprate, there was general agreement among the governor, the Legislature, the department, that there should be an independent safety inspection before an uprate was approved."<sup>193</sup> In its decision, the Vermont district court noted the public concern voiced in response to the NRC's approval of VY's dry cask storage, which had become even more significant because of the uprate approval:

---

190. See Mark Edward Leyse; Mark Edward Leyse and Raymond Shadis, on Behalf of the New England Coalition; Petitions for Rulemaking, 75 Fed. Reg. 66,007 (Oct. 27, 2010).

191. See *id.*

192. Leyse & Shadis, *supra* note 87, at 28.

193. *Vt. Yankee*, 2012 WL 162400, at \*23.

The [VPSB] also received almost 500 public comments, of which, it noted, “[t]he vast majority . . . highlighted public concerns about the power uprate that we previously approved, and the desire for an independent safety assessment, general nuclear safety concerns, and Vermont Yankee as a terrorist target.” A minority “addressed dry fuel storage directly.”<sup>194</sup>

The opinion also noted that during the floor debate on Act 189, a senator stated, “[T]here is a fair amount of public concern about the adequacy of the NRC’s inspection process.”<sup>195</sup> In another instance, expert witnesses “urged ‘the Legislature to maintain oversight over dry cask storage,’ because there was ‘very little faith in the [NRC].’”<sup>196</sup> It is worth noting that the issue of appropriate fuel rod temperatures and exposed waste are two issues that bear most directly on plant safety. It was the excess fuel rod heat that melted the reactor core at Fukushima and led to the release of radioactive gas.<sup>197</sup>

However, the court did not observe the VGA’s careful consideration of these issues in order to applaud its strong response to serious safety concerns; rather, the court emphasized these discussions to support its conclusion that Vermont *must* have acted almost exclusively out of concern for safety when enacting its laws.<sup>198</sup> The on-the-record discussions of safety, “too numerous to recount,” ultimately sank Vermont’s legislation.<sup>199</sup>

Stepping out from behind the preemption lens, the record in Vermont can be viewed differently. What if the record was not replete with references to citizen concerns about radioactive contamination or plant safety? What would that say about the Vermont legislature? It could be taken to mean a number of things, none of which should be considered desirable. For one, it might indicate that the state legislature was ignorant or neglectful of its constituents’ most troubling concerns. It is a legislator’s job to identify problems and prioritize resources in order to address them. Do we really want a scenario in which local legislators are reluctant to discuss problems candidly and in depth? Public interest groups whose resources may be insufficient to keep pace with the NRC can magnify their concerns through their local legislatures, who have the staff, experience, and resources available to advocate more forcefully.

---

194. *Id.* at \*11 (alterations in original) (quoting Opinion and Order, *supra* note 114, at 12).

195. *Id.* at \*23.

196. *Id.* at \*43.

197. YERGIN, *supra* note 22, at 412.

198. *See Vt. Yankee*, 2012 WL 162400, at \*40-42.

199. *Id.* at \*40.

State legislatures have the ability to “fill in the gaps” left by federal regulators.<sup>200</sup>

After *Vermont Yankee*, state legislatures will be even more careful than before to tiptoe around the real issues. They will employ more resources to make sure not only that the legislation itself is appropriately phrased, but also that the entire record supports a valid characterization of legislative purpose. Instead of facilitating cooperative deliberation, as Act 160 would have, *Vermont Yankee* restricts the deliberative function of state legislatures, which have dealt with local facilities and personnel for decades. The decision will make both legislators and public groups apprehensive. The latter may be deterred from acting in other forums, such as the NRC, because they fear that a court may later draw on these efforts to invalidate state legislation. If legislators, out of fear of preemption, resort to behind-the-scenes legislating, the global regulatory process will be deprived of the critical information and viewpoints needed to find solutions. Given that the Vermont district court draws on public comments, legal advice, signing comments, correspondence, casual remarks, and virtually everything it can find, actors in the regulatory process will come to realize that no statement or action will be immune from judicial scrutiny. This realization may manifest itself in the form of fabricated floor debate, less floor debate, or a general disappearance of transparent exchange on the issues. Ironically, however, legislatures may finally realize what it takes to avoid preemption absolutely. But this will not prevent safety concerns from driving legislation; it will simply discourage candid discussion of safety. State legislators will still pass laws with radiological issues in mind, because quite frankly, it is impossible to ignore these pervasive issues when discussing other aspects of nuclear power. The issues are inseparable.<sup>201</sup>

A similar concern about open, effective deliberation exists in the area of air quality regulation. In *Whitman v. American Trucking Ass'ns*, the Supreme Court prohibited the Environmental Protection Agency (EPA or Agency) from considering the costs of implementation when setting National Ambient Air Quality Standards under the Clean Air Act.<sup>202</sup> Without considering costs, the Agency must now determine what limitations on pollutants will “protect the public health with an adequate margin of safety.”<sup>203</sup> Critics of this decision argue that it has a negative impact on the “public debate about air quality goals because the EPA

---

200. See Babcock, *supra* note 189.

201. See *id.*

202. 531 U.S. 457, 471 (2001).

203. *Id.* at 465 (quoting 42 U.S.C. § 7409(b)(1) (2006)) (internal quotation marks omitted).



cannot explicitly discuss its considerations of costs, even though it must of necessity think about costs.”<sup>204</sup> The prohibition on cost discussion causes the EPA’s deliberation to take on a contrived, unnatural form.

The same line of criticism is applicable to the *Vermont Yankee* decision because state legislators will in effect be required to purge any consideration of safety from their discussion and decision, which, as *Pacific Gas* recognizes, is an impossible task.<sup>205</sup> For example, if waste disposal cannot be discussed because it is largely about radiological substances, then how can the potential economic effect of a “clog” in the fuel cycle be discussed?<sup>206</sup> Uncertainties about the sufficiency of dry-storage facilities and the risk of radioactive leakage, while perhaps matters that are exclusively within the regulatory purview of the NRC, will naturally surface in a legislature’s discussion of a forty-year-old nuclear power facility. As a constituent, one would hope that state legislators are discussing these issues as frequently and forcefully as possible.

Yet *Vermont Yankee* encourages legislators to discuss these issues off the record and out of the public eye. As a result, the quality of the information available to the regulatory process as a whole will deteriorate, and the NRC will lose its campaign to gain public confidence in the industry and its regulators. It should be clear to Congress, the NRC, the industry, and state governments that this is an undesirable direction if the nuclear energy industry is to remain effective and sustainable. The process of deliberation must remain open and informed, and the *Vermont Yankee* decision will move the process in the opposite direction.

## V. CONCLUSION

As nuclear energy moves into a new era in the United States, it is essential that the public maintain meaningful control over the nuclear regulatory process. Given the NRC’s purging of public involvement on the federal side, the primary alternative for the public is action through

---

204. ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW SCIENCE AND POLICY 572 (6th ed. 2009) (citing MARC K. LANDY ET AL., THE ENVIRONMENTAL PROTECTION AGENCY: ASKING THE WRONG QUESTIONS 49 (1990); George Eads, *The Confusion of Goals and Instruments: The Explicit Consideration of Cost in Setting National Ambient Air Quality Standards*, in TO BREATHE FREELY: RISK, CONSENT, AND AIR 222 (Mary Gibson ed., 1985)).

205. See *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 216 (1983) (explaining that because the “specific indicia of [a state’s] intent in enacting [nuclear legislation] are subject to varying interpretation,” judicial inquiry into intent in such instances is pointless).

206. *Id.* at 213.

state legislators. Action and deliberation in state legislatures help to ensure the safe operation of local facilities and the industry as a whole. Vermont legislators are keenly aware of the potentially ruinous effect that the *Vermont Yankee* holding will have on the discussion and implementation of responsible nuclear regulation.<sup>207</sup> Accordingly, the Vermont Attorney General has filed notice of appeal in the United States Court of Appeals for the Second Circuit, arguing that the district court's "undue reliance on the discussions among our citizen legislators, expert witnesses, advocates and their constituents" is contrary to precedent and "has the potential to chill legislative debates in the future."<sup>208</sup> Whether the Second Circuit will accept this argument and affirm broad state authority remains to be seen. But if future decisions prove the AEA to be an insufficient guarantor of state and local agency, Congress should explicitly create clear state authority that will enable the public to influence nuclear regulation and hold the industry and its regulators accountable. If nuclear energy is to remain a viable fuel source, the legislative process must remain open and responsive to the public interest.

---

207. Dave Gram, *Vermont Appeals Court Ruling on Yankee Nuclear Plant*, BURLINGTONFREEPRESS.COM (Feb. 18, 2012, 1:17 PM), <http://www.burlingtonfreepress.com/article/20120218/NEWS02/120218008/Attorney-general-appeal-ruling-Vermont-Yankee-nuclear-power-plant-keep-operating>.

208. *Id.* (quoting Att'y Gen. William Sorrell).