

Standing in Nuclear Waste: Challenging the Disposal of Yucca Mountain

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NOTE

STANDING IN NUCLEAR WASTE: CHALLENGING THE DISPOSAL OF YUCCA MOUNTAIN

Megan Easley†

INTRODUCTION	660
I. A BRIEF HISTORY OF NUCLEAR ENERGY	662
A. The Early Years: Promoting Civilian Nuclear Power Plants	662
B. The Nuclear Waste Policy Act	665
C. Litigation	668
1. <i>Nevada</i>	668
2. <i>Utility Companies</i>	669
3. <i>Uncertainty over Regulatory Standards</i>	671
II. YUCCA MOUNTAIN: NO LONGER A WORKABLE OPTION	672
A. Shifting Priorities	672
B. The Atomic Safety and Licensing Board Panel Initial Decision	674
C. The Aftermath	676
III. MODERN STANDING DOCTRINE AND THE INDEPENDENT AGENCIES	679
A. Standing	679
B. Independent Agencies	681
IV. EXPANDED STANDING TO CHALLENGE THE ACTIONS OF THE NRC	683
A. Granting Early Access	684
B. Standing	686
1. <i>Utility Companies</i>	686
2. <i>States</i>	687
3. <i>Individual Residents</i>	689
CONCLUSION	691

† B.A., *magna cum laude*, Georgetown University; Candidate for J.D., Cornell Law School, 2012; Notes Editor, *Cornell Law Review*, Volume 97. I would like to thank Greg Schmidt for his thoughtful topic suggestions and his endless patience while teaching me the basics of nuclear engineering. I am very grateful to my parents for their encouragement during the writing process and throughout my time at Cornell. I would also like to express my gratitude to Professor Cynthia Farina for teaching me administrative law. Finally, I want to thank the members of the *Cornell Law Review*, particularly Gary Finley, Rachel Sparks Bradley, and Catherine Milne for all of their time and effort spent perfecting this piece.

INTRODUCTION

More likely than not, you live within seventy-five miles of nuclear waste.¹ Perhaps, like many citizens, you were previously unaware of your proximity to spent nuclear fuel. Or perhaps, if you live in a state where nuclear waste is a more politically pressing issue—places like South Carolina, Washington, or Nevada—you are already acquainted with this peculiar neighbor. Either way, while the safe disposal of nuclear waste should be a concern for every citizen, relatively few voices have dominated the debate over this critical issue during the last few decades. This may change, however, as public awareness continues to increase following the severe damage to the Fukushima Daiichi nuclear power plant in Japan after a devastating earthquake and tsunami in March 2011.² Frightening images of the crippled plant and the evacuated homes surrounding it have reinvigorated debate in the United States about the hazards of radioactive waste and the risks of domestic disaster.³

Although the U.S. government accepted federal responsibility for disposing of civilian nuclear waste with the Nuclear Waste Policy Act of 1982 (NWPA),⁴ spent nuclear fuel continues to linger at its source in temporary storage facilities built by the utility companies operating nuclear power plants.⁵ Some of these facilities are leaking,⁶ some are

¹ See *Nuclear Energy Student Zone: Facing Challenges*, U.S. DEP'T OF ENERGY, http://www.ne.doe.gov/students/electra_challenges.html (last visited Nov. 14, 2011) (“[M]ore than 161 million people reside within 75 miles of temporarily stored nuclear waste.”).

² See, e.g., John M. Glionna, *Anxiety in Fukushima's Shadow*, L.A. TIMES, Apr. 1, 2011, at A1; Robert Lee Hotz & Jennifer Levitz, *Radiation Detected in U.S.*, WALL ST. J., Mar. 29, 2011, at A12; Hiroko Tabuchi et al., *As More Nuclear Plant Damage is Found, Japan Encourages a Wider Evacuation*, N.Y. TIMES, Mar. 26, 2011, at A11.

³ See, e.g., Chris Kirkham, *Nuclear Waste Next Door: Japan Crisis Spotlights America's Radioactive Waste Dilemma*, HUFFINGTON POST (Mar. 29, 2011, 8:20 A.M.), http://www.huffingtonpost.com/2011/03/29/japan-nuclear-waste-dilemma-america_n_841476.html; Roberta Rampton & Ayesha Rascoe, *Nuclear Waste Conundrum Top Concern for Senators*, REUTERS (Mar. 30, 2011), <http://www.reuters.com/article/2011/03/30/us-usa-nuclear-fuel-idUSTRE72T5U420110330>; James Rosen, *New House Probe of Obama: Decision to Dump Yucca Site*, McCLATCHY NEWSPAPERS (Apr. 1, 2011), <http://www.mcclatchydc.com/2011/04/01/111420/house-panel-to-probe-obama-on.html>.

⁴ Nuclear Waste Policy Act of 1982 (NWPA), Pub. L. No. 97-425, 96 Stat. 2201 (1983) (codified as amended at 42 U.S.C. §§ 10101–10270 (2006)); see *Budget Implications of Closing Yucca Mountain: Hearing Before the H. Comm. on the Budget*, 111th Cong. 43 (2010) [hereinafter *Hearing on Budget Implications*] (statement of David A. Wright, Vice Chairman, Public Service Commission of South Carolina).

⁵ See *Hearing on Budget Implications*, *supra* note 4, at 23–24 (statement of Rep. Betty McCollum, Member, H. Comm. on the Budget).

⁶ See Dave Gram, *Vi. Nuke Fights for Future but Chances Are Dimming*, ABC NEWS, (Jan. 9, 2011), <http://abcnews.go.com/Business/wireStory?id=12576008> (reporting on the uncertain future of the Vermont Yankee nuclear power plant that was discovered to be leaking tritium near the Connecticut River, and stating that “[t]hirty-seven of the nation’s 104 nuclear reactors have had leaks like the ones reported at Vermont Yankee”).

located near elementary schools,⁷ and others are already filled to capacity.⁸ These problems in “temporary storage” are hardly surprising, however, since under the NWPA the federal government was to accept receipt of nuclear waste for permanent disposal in a geologic repository in 1998.⁹ However, 1998 came and went but nuclear waste stayed put.

The story of nuclear waste policy in this nation is one fraught with discord. The legal issues stemming from the government’s attempts to implement the NWPA range from breach of contract and violations of environmental standards to matters of state sovereignty and separation of powers. The history of the NWPA offers a particularly rich array of conflict, but the focus of this Note is on two particular issues: first, what happened, and second, who has standing to challenge the current standstill and is best positioned to achieve effective relief. I argue that settling the standing issue is a crucial first step toward resolving the legal quagmire that currently defines nuclear waste disposal in the United States.

Part I of this Note presents an overview of the nuclear power industry by discussing its historical roots and the problem of nuclear energy by-products, and then delves into Congress’s chosen response—the NWPA—and the resulting rounds of litigation. Part II

⁷ See, e.g., *Hearing on Budget Implications*, *supra* note 4, at 23 (statement of Rep. Betty McCollum). Representative McCollum (D-Minn.) explained her concerns regarding the Prairie Island Indian Community located near her district: “The children of Prairie Island for over two decades have seen concrete casks of nuclear waste from their swing sets on a storage site that is owned and operated by Xcel Energy that was designed . . . to be only a temporary storage facility. This is unacceptable for human health[] and for environmental hazards in this community like many others across America.” *Id.*

⁸ See *Status of Used Nuclear Fuel Storage at U.S. Commercial Nuclear Plants*, NUCLEAR ENERGY INST. (July 2010), <http://www.nei.org/resourcesandstats/documentlibrary/nuclearwastedisposal/factsheet/statusofusednuclearfuelstorage?page=1> (last visited Nov. 14, 2011) [hereinafter *Status of Used Nuclear Fuel Storage*] (providing a list of commercial nuclear plants accompanied by what year each location will run out of on-site storage space in the pools that hold used fuel assemblies once they are removed from the reactor and several power plants ran out of storage space in these pools over two decades ago).

⁹ See 42 U.S.C. §§ 10101(18) (defining “repository”), 10131(b)(2) (establishing federal responsibility for high-level radioactive waste and spent nuclear fuel), 10222(a)(5)(B) (“[B]eginning not later than January 31, 1998, [the Secretary] will dispose of the high-level radioactive waste or spent nuclear fuel . . .”); ROBERT VANDENBOSCH & SUSANNE E. VANDENBOSCH, *NUCLEAR WASTE STALEMATE: POLITICAL AND SCIENTIFIC CONTROVERSIES* 60 (2007). While a geologic repository may take many forms, in layman’s terms, the geologic repository envisioned by the NWPA is essentially a natural rock storage zone into which cylindrical containers of radioactive waste will be inserted and buried. Beyond the barriers provided by the natural environment, there are also engineered protections against the release of radionuclides into the biosphere. The engineered system is made up of the waste package (nuclear waste and its surrounding protective container), various auxiliary components, and the configuration of the repository itself. The natural system is essentially the surrounding rock. As a result, the location and type of which are very important for creating an effective geologic repository. See DAVID BODANSKY, *NUCLEAR ENERGY: PRINCIPLES, PRACTICES, AND PROSPECTS* 266–67 (2d ed. 2004).

focuses on recent developments related to the proposed repository at Yucca Mountain, Nevada—specifically, the current administration’s determination to reinterpret, without repealing or amending, provisions of the NWPAs as well as the executive, legislative, and judicial responses that have followed. Part III provides a discussion of modern standing doctrine with a focus on the place of independent agencies in the constitutional framework. Finally, Part IV presents an analysis of who among the spectrum of potential litigants should have standing to challenge the current halt of progress under the NWPAs and concludes with a recommendation about which petitioner is best positioned to seek effective redress.

I

A BRIEF HISTORY OF NUCLEAR ENERGY

A. The Early Years: Promoting Civilian Nuclear Power Plants

The sixty-five nuclear power plants present in thirty-one states have historically generated an average of one-fifth of the United States’ electricity supply.¹⁰ In 2007, these nuclear power plants generated over eight hundred billion kilowatt-hours of electric power, more than nuclear power in Central America, South America, Africa, Asia, and the Middle East combined.¹¹ While fossil fuels constitute the bulk of the United States’ energy consumption,¹² the nuclear power industry has established a significant presence over the last half-century.¹³ Indeed, the rising demand for energy combined with obstacles to the expansion of fossil fuel—most notably the OPEC oil embargo in 1973—made nuclear power a viable alternative source of energy.¹⁴ Particularly during these periods of shortage, atomic energy appeared to many to be an ideal solution.¹⁵ Despite the advantages of nuclear power, however, both its history and its future are controversial.

First, in the years following World War II, memories of Hiroshima and the catastrophic damage that nuclear weapons can cause re-

¹⁰ *What is the Status of the U.S. Nuclear Industry?* U.S. ENERGY INFO. ADMIN. (Apr. 22, 2011), http://www.eia.doe.gov/energy_in_brief/nuclear_industry.cfm.

¹¹ *Table 27: World Net Nuclear Electric Power Generation, 1980–2006*, U.S. ENERGY INFO. ADMIN., <http://www.eia.gov/iea/elec.html> (click on “World Net Nuclear Electric Power Generation (Billion Kilowatthours), 1980–2006”) (last visited Nov. 14, 2011).

¹² *See* ANNUAL ENERGY REVIEW 2010, OFFICE OF ENERGY STATISTICS, U.S. ENERGY INFO. ADMIN. 5 tbl. 1.1 (2011), available at <http://www.eia.gov/totalenergy/data/annual/pdf/aer.pdf>.

¹³ *See id.*

¹⁴ *See* BODANSKY, *supra* note 9, at 18–21 (discussing shifting attitudes about the status of nuclear energy in the United States, which peaked in popularity during the 1970s).

¹⁵ *See id.* at 20 (“[N]uclear energy was favored by an almost romantic image of it as a source of abundant, clean energy, by the possible technological imperative to move ahead because it was possible to do so, and by the correct, even if not well quantified, recognition of an eventual limit to fossil fuels.”).

mained fresh in the minds of many Americans.¹⁶ Unfortunately, these images of atomic devastation from Japan had no positive mitigating counterpart in the public consciousness because the government shielded its applications of nuclear power behind a veil of national security.¹⁷ As a result, public understanding of nuclear power has been incomplete from the beginning, and concerns about safety and the threat of improper use have dominated (and continue to dominate) the national discourse. Many individuals involved with the nuclear industry have suggested that public concern is overblown,¹⁸ but it is hardly surprising that laymen confronting the concept of nuclear fission experience discomfort. This is especially true today, when the public is once again faced with horrors wrought by nuclear disaster in Japan¹⁹ accompanied by continued confusion and anxiety over the precise dangers posed by radiation.²⁰

In spite of public disquiet in the wake of World War II, the budding nuclear industry was optimistic about the future of nuclear power generation.²¹ In 1946, Congress created the Atomic Energy Commission (AEC) to both promote and regulate the nuclear industry.²² By the mid-1970s, however, public distrust of the agency's dual

¹⁶ See *id.* (“[B]enign nuclear power had a malign older sibling in nuclear weapons.”); see also VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 3 (discussing public fear of radiation).

¹⁷ See Eugene A. Rosa & William R. Freudenburg, *The Historical Development of Public Reactions to Nuclear Power: Implications for Nuclear Waste Policy*, in PUBLIC REACTIONS TO NUCLEAR WASTE: CITIZENS' VIEWS OF REPOSITORY SITING 32, 33 (Riley E. Dunlap et al. eds., 1993) (noting that national security interests protected the “nuclear subgovernment” from obligations of public disclosure under the Atomic Energy Act of 1946); see also Howard Morland, *Born Secret*, 26 CARDOZO L. REV. 1401, 1401–08 (2005) (discussing the “born secret” provision of the Atomic Energy Act of 1946, which effectively created a “permanent gag order affecting all public discussion of an entire subject matter”).

¹⁸ See BODANSKY, *supra* note 9, at 22; see also PUBLIC REACTIONS TO NUCLEAR WASTE: CITIZENS' VIEWS OF REPOSITORY SITING, *supra* note 17 (collecting essays on various public responses to radioactive waste).

¹⁹ See sources cited *supra* note 2.

²⁰ See, e.g., Gloria Goodale, *Nuclear Radiation in Pop Culture: More Giant Lizards Than Real Science*, CHRISTIAN SCI. MONITOR (Mar. 30, 2011), <http://www.csmonitor.com/USA/2011/0330/Nuclear-radiation-in-pop-culture-more-giant-lizards-than-real-science> (discussing the entertainment industry's use of the public fear about radiation); Carolyn Y. Johnson, *Crisis in Japan Raises Fears in U.S.: Worries About Radiation Ingrained Since Hiroshima*, BOSTON GLOBE (Mar. 29, 2011), http://articles.boston.com/2011-03-29/lifestyle/29360843_1_radiation-exposure-radioactive-iodine-massachusetts-rainwater (reporting on public anxiety over radiation risks).

²¹ See BODANSKY, *supra* note 9, at 31–33. The industry was perhaps too optimistic at times, however, since expectations have not, for the most part, lived up to the enthusiasm of the post-World War II years.

²² See Act of Aug. 1, 1946, ch. 724, § 2(a), 60 Stat. 755, 756; see also *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 206–07 (1983) (discussing the early history of atomic energy in the United States); VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 35 (discussing the Atomic Energy Commission and its successor agencies' responsibility concerning the disposal of radioactive waste).

(and potentially conflicting) missions spurred Congress to abolish the AEC in favor of assigning its regulatory activities to the newly created Nuclear Regulatory Commission (NRC) and the remainder of its responsibilities to the Energy Research and Development Administration (ERDA).²³ Shortly after its creation, the ERDA merged with several other agencies to become the present-day Department of Energy (DOE).²⁴

From its inception, nuclear power has been uniquely positioned as the “only energy source that began as, and remains, a primarily public enterprise.”²⁵ Of course, while nuclear power plants in the United States are technically civilian-run, government assistance has been instrumental. Initially, the federal government funded all of the original research and development, provided free uranium fuel, and restricted nuclear power plants’ liability in case of accident under the Price-Anderson Act.²⁶ Even today, federal loan guarantees are instrumental in plans for expanding nuclear power.²⁷ Perhaps most importantly, the federal government took responsibility for researching methods of nuclear waste disposal, and eventually, for disposing of all civilian radioactive waste.²⁸

During the nuclear power industry’s first several decades, true concern over nuclear waste management did not penetrate industry culture.²⁹ While it has become clear that radioactive waste poses a

²³ See Energy Reorganization Act of 1974, 42 U.S.C. §§ 5811 (establishing the Energy Research and Development Administration), 5814 (abolishing the AEC), 5841(a)(1) (establishing the Nuclear Regulatory Commission (NRC)), 5841(f) (transferring the “licensing and related regulatory functions of the Atomic Energy Commission” to the NRC) (2006); see also VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 35 (discussing the abolishment of the AEC and establishment of two new agencies in its place); Rosa & Freudenburg, *supra* note 17, at 35–38 (discussing the AEC’s lax safety standards for the nuclear industry and its emphasis on industry self-regulation).

²⁴ See MARC ALLEN EISNER ET AL., *CONTEMPORARY REGULATORY POLICY* 274–77 (2d ed. 2006) (discussing President Nixon’s failed proposal to create a cabinet-level Department of Energy and Natural Resources in 1974 and President Carter’s subsequent success in 1977).

²⁵ *Id.* at 270.

²⁶ 42 U.S.C. § 2210; see EISNER ET AL., *supra* note 24, at 270 (listing government contributions to the nuclear power industry and concluding that “it is extraordinarily unlikely that civilian nuclear power would exist without government support”).

²⁷ See Matthew L. Wald, *U.S. Backs Construction of Reactors*, N.Y. TIMES, Feb. 17, 2010, at B1 (reporting President Obama’s announcement of an \$8.3 billion federal loan guarantee to assist utility companies building twin nuclear reactors in Georgia).

²⁸ See EISNER ET AL., *supra* note 24, at 270.

²⁹ See Rosa & Freudenburg, *supra* note 17, at 33–34 (arguing that nuclear waste was viewed as a minute issue both during World War II—due to more pressing concerns and the minimal amount of waste generated at the time—and also in subsequent years when “techno-optimism” pervaded the industry); see also BODANSKY, *supra* note 9, at 254 (“For many years, the United States ‘nuclear establishment’ felt no urgency about the waste disposal problem because it appeared to be easily solvable and not technically interesting.”); Michael E. Kraft et al., *Public Opinion and Nuclear Waste Policymaking*, in PUBLIC REACTIONS TO NUCLEAR WASTE: CITIZENS’ VIEWS OF REPOSITORY SITING, *supra* note 17, at 3, 7 (stating

significant problem for the nuclear industry, even today, opinion is divided over whether the difficulty stems from technical deficiency or simply from flawed perception.³⁰ Of course, fear of radioactive waste is not without basis in fact. The transuranic elements and the short- and long-lived fission products present in nuclear waste emit alpha, beta, and gamma radiation, as well as neutrons.³¹ Significant or prolonged exposure to ionizing radiation will result in biological damage that increases the likelihood of the exposed individual developing cancer.³² Thus, one thing everyone can agree on is that radioactive waste must be disposed of safely and permanently.

B. The Nuclear Waste Policy Act

Numerous approaches to the problem of nuclear waste disposal have been studied and implemented around the world.³³ In the United States, federal agencies began to officially address the need for a comprehensive waste management scheme in the 1970s when the popularity of nuclear power was at its zenith.³⁴ Yet by the latter half of the decade, concerns about the continued use and expansion of nuclear power emerged on several different fronts. First, upon arriving in office in 1977, President Jimmy Carter made energy policy a central objective of his administration.³⁵ Second, and perhaps most funda-

that neither the federal government nor the nuclear industry was particularly troubled by the feasibility of waste disposal until the 1970s).

³⁰ See BODANSKY, *supra* note 9, at 337–38 (identifying two polar stances on the problem of nuclear waste disposal).

³¹ See *id.* at 57–58, 146–47, 619.

³² See *id.* at 57–63, 87–88 (giving an overview of the problems associated with radiation exposure and explaining that the long-term effect of exposure at low doses of radiation “is an increased risk of cancer,” while exposure at high doses of radiation is usually fatal).

³³ See *id.* at 253–87. David Bodansky offers an informative presentation of various methods of radioactive waste disposal, including storage of spent fuel at reactor sites, interim storage at centralized facilities, deep geologic disposal and variants thereof, seabed disposal, partitioning and transmutation of radionuclides, extraterrestrial disposal with rockets, and polar disposal. Bodansky also discusses the plans currently in use or expected to be implemented in various countries around the world. See *id.* at 285–86; see generally NUCLEAR ENERGY AGENCY, ORG. FOR ECON. CO-OPERATION AND DEV., PARTNERING FOR LONG-TERM MANAGEMENT OF RADIOACTIVE WASTE: EVOLUTION AND CURRENT PRACTICE IN THIRTEEN COUNTRIES (2010) (discussing the waste disposal approaches taken by various nations).

³⁴ See Leroy C. Gould, *The Radioactive Waste Management Problem*, in TOO HOT TO HANDLE?: SOCIAL AND POLICY ISSUES IN THE MANAGEMENT OF RADIOACTIVE WASTES 1, 4–7 (Charles A. Walker et al. eds., 1983) (detailing early steps in the process toward developing and implementing a national plan for the disposal of radioactive waste).

³⁵ See EISNER ET AL., *supra* note 24, at 276 (discussing President Carter’s objectives for energy policy). Although (or perhaps because) Carter had a background in nuclear engineering, he intended to reduce the nation’s reliance on nuclear power. His determination likely stemmed from fear that expanding nuclear technology could cause both environmental and national security risks because of the increasing availability of radioactive material. See *id.* at 279–80; see also Thomas A. Cotton, *Nuclear Waste Story: Setting the Stage*, in

mental for spurring change, on March 29, 1979 the partial core meltdown at Three Mile Island Nuclear Generating Station in Pennsylvania effectively sounded a nationwide alarm of the dangers of radioactive waste contamination.³⁶ Following the accident, public approval of the nuclear power industry dropped precipitously.³⁷ The stage was set for the federal government to demonstrate control of the civilian nuclear power industry by developing a plan for disposing of the radioactive waste increasingly feared by the public.

Each branch of the government played its own key role in shaping the course of action. Interestingly, an arm of the judiciary took one of the first steps. Less than two months after the accident at Three Mile Island, the Circuit Court of Appeals for the District of Columbia issued a decision effectively rebuking the NRC for extending nuclear power plant licenses without a plan for handling radioactive waste.³⁸ In *Minnesota v. NRC*, the D.C. Circuit remanded two licensing actions to the NRC for further review in conjunction with the agency's ongoing investigation (begun in 1972) of nuclear waste disposal options.³⁹ By late October 1979, the NRC had issued a Notice of Proposed Rulemaking "in response to the decision of the United States Court of Appeals in *State of Minnesota v. NRC*" and in "continuation of previous proceedings" concerning permanent disposal of nuclear waste.⁴⁰

In its position statement regarding the proposed rulemaking, the DOE affirmed its commitment to President Carter's message to Congress, in which he stated his intention to "adopt[] an interim planning strategy focused on the use of mined geologic repositories capable of accepting both waste from reprocessing and unprocessed

UNCERTAINTY UNDERGROUND: YUCCA MOUNTAIN AND THE NATION'S HIGH-LEVEL NUCLEAR WASTE 29, 31-32 (Allison M. Macfarlane & Rodney C. Ewing eds., 2006) (outlining the national policy discussion that ensued after President Carter established the Interagency Review Group on Nuclear Management in 1978).

³⁶ See, e.g., Thomas O'Toole, *Radiation Spreads 10 Miles From A-Plant Mishap Site*, WASH. POST, Mar. 29, 1979, at A1.

³⁷ See Rosa & Freudenburg, *supra* note 17, at 47-48 (noting that polls prior to the accident at Three Mile Island showed that supporters of growth in the nuclear power industry outnumbered opponents approximately two-to-one, but that following March 1979, the figure shifted to closer to one-to-one); cf. BODANSKY, *supra* note 9, at 419-20 (discussing studies of the health effects of the Three Mile Island accident and concluding that "there is virtually no possibility that there have been or will be observable health effects from radioactivity released in the [Three Mile Island] accident").

³⁸ 602 F.2d 412, 416, 418 (D.C. Cir. 1979).

³⁹ *Id.* at 416 ("We agree with the Commission's position that it could properly consider the complex issue of nuclear waste disposal in a 'generic' proceeding such as rulemaking, and then apply its determinations in subsequent adjudicatory proceedings.")

⁴⁰ See Notice of Proposed Rulemaking on Storage and Disposal of Nuclear Waste, 44 Fed. Reg. 61372, 61373 (Oct. 25, 1979).

commercial spent fuel.”⁴¹ Despite this show of executive will and administrative support, by 1982 the United States had a thriving commercial nuclear power sector and a new president who supported its expansion, but still no accepted plan for the disposal of radioactive waste—a plan that would prove necessary to grow or even maintain the bulky industry.⁴² Finally, Congress “joined the fray” and took decisive action by passing the NWPA, which officially established federal responsibility for the permanent disposal of all civilian radioactive waste in a deep geologic repository.⁴³

Although Congress recognized that the federal government “has the responsibility to provide for the permanent disposal of high-level radioactive waste and . . . spent nuclear fuel,” the NWPA allocates the cost of financing a repository to the civilian nuclear waste industry.⁴⁴ Under section 10222(a) of the NWPA, Congress took the unique step of authorizing the Secretary of Energy to enter into Standard Contracts with nuclear power plant owners that levied a fee of one-tenth of one cent (one mil) per kilowatt-hour on electricity generated by civil nuclear power reactors.⁴⁵ Owners pay the fees into the Nuclear Waste Fund, which Congress created to finance the development and construction of a deep geologic repository.⁴⁶ In return for funding the government’s radioactive waste disposal activities, the DOE was obligated to the contracting parties to take title to civilian-generated radioactive waste as soon as a repository commenced operation and to dispose of said waste not later than January 31, 1998.⁴⁷

With this deadline in mind, the NWPA set forth an aggressive schedule for the site selection, licensing, construction, and operation of a geologic repository to permanently store civilian generated radioactive waste.⁴⁸ Pursuant to the NWPA, the first step fell to the DOE to promulgate guidelines for recommending candidate sites.⁴⁹ In 1983,

⁴¹ DEP’T OF ENERGY, DOE/NE-0007, STATEMENT OF POSITION OF THE DEP’T OF ENERGY IN THE MATTER OF PROPOSED RULEMAKING ON THE STORAGE AND DISPOSAL OF NUCLEAR WASTE (WASTE CONFIDENCE RULEMAKING) (1980), at 1-6.

⁴² See EISNER ET AL., *supra* note 24, at 281-83 (discussing policy changes made under President Reagan that promoted commercial nuclear power by increasing appropriations, relaxing standards for licensing, prohibiting state and local governments from delaying new power plants, and doubling the licensing period for all nuclear power plants).

⁴³ 42 U.S.C. §§ 10101(18), 10131(b)(1)-(2) (2006); EISNER ET AL., *supra* note 24, at 283.

⁴⁴ 42 U.S.C. § 10131(a)(4)-(5); *see also id.* § 10222 (establishing and describing the “Nuclear Waste Fund”).

⁴⁵ *Id.* § 10222(a)(1)-(2).

⁴⁶ *See id.* § 10222(c)-(d).

⁴⁷ *Id.* § 10222(a)(5).

⁴⁸ *Id.* § 10131(b)(1).

⁴⁹ *Id.* § 10132(a) (providing a variety of factors for the Secretary to consider in developing guidelines, including proximity to valuable natural resources, water supplies, populations, components of the National Park System, as well as nearness to sites where nuclear waste is already temporarily stored).

the DOE nominated nine candidate sites and, by 1984, the DOE had produced draft environmental assessments for each.⁵⁰ Subsequently (though already over a year behind schedule), the DOE narrowed the list to three recommended locations for further site characterization: Hanford in Washington, Deaf Smith County in Texas, and Yucca Mountain in Nevada.⁵¹ Out of frustration with lengthening delays, protectionist political maneuvering, or some combination thereof, however, Congress intervened and passed the Nuclear Waste Policy Amendments Act of 1987 (NWPAA), designating Yucca Mountain in Nevada as the sole site for characterization.⁵²

C. Litigation

1. Nevada

The decision to focus exclusively on Yucca Mountain may have made economic and even technical sense for the nation as a whole,⁵³ but the reaction from the citizens of Nevada was less than appreciative, epitomized by the local name for the NWPAA: the "[S]crew Nevada [B]ill."⁵⁴ The state of Nevada has fought against the plan to turn Yucca Mountain into the nation's nuclear waste repository for over two decades.⁵⁵ Indeed, since the 1987 site selection, Nevada has done everything conceivable to impede government progress toward developing Yucca Mountain. For example, in 1989, the state legislature

⁵⁰ See Availability of Draft Environmental Assessments for Proposed Site Nominations and Announcement of Public Information Meetings and Hearings, 49 Fed. Reg. 49,540 (Dec. 20, 1984); see also VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 61 (discussing the DOE's timeline immediately following passage of the NWPAA). Note that Section 10132(b)(1)(A) of the NWPAA required the Secretary to propose at least five sites "that he determines suitable for site characterization for selection of the first repository site." 42 U.S.C. § 101(b)(1)(A).

⁵¹ Cotton, *supra* note 35, at 35. Although the NWPAA required the recommendation to occur by January 1, 1985, the Secretary's environmental assessment of these three sites was not completed until May of 1986. See 42 U.S.C. § 101(b)(1)(A)-(B). The selected sites were unique from one another both in location and geologic makeup: a basalt site in Washington, a bedded salt site in Texas, and a tuff site in Nevada. See BODANSKY, *supra* note 9, at 297.

⁵² See Pub. L. No. 100-203, § 5011(a), 101 Stat. 1330-228 (1987) (codified as amended at 42 U.S.C. § 10172(a)). See EISNER ET AL., *supra* note 24, at 285 (discussing the "not in my backyard" (NIMBY) syndrome that infected Congress regarding site selection and noting that "[i]t was probably no coincidence that of the three states mentioned as possible sites, Texas and Washington managed to get themselves removed from the list while members of their congressional delegations served as Speaker and majority leader of the House").

⁵³ See Cotton, *supra* note 35, at 36 (rationalizing the decision to limit evaluation to Yucca Mountain as a reasonable focusing of resources but also indicating that Nevadans resented the development as "purely political").

⁵⁴ Thomas W. Lippman, *Nevada's Objections Stall Plan for Nuclear Waste Repository: Alternative Sites Lacking as Setbacks Mount*, WASH. POST, Oct. 3, 1989, at A1.

⁵⁵ In *Nevada ex rel. Loux v. Herrington*, 777 F.2d 529, 536 (9th Cir. 1985), at the beginning of this fight, Nevada had a brief taste of success after the Ninth Circuit held that, under the NWPAA, Nevada was entitled to funding for pre-site characterization activities.

sent a clear signal of its resolve by passing a bill declaring it “unlawful for any person or governmental entity to store high-level radioactive waste in Nevada.”⁵⁶ The U.S. Court of Appeals for the Ninth Circuit had little difficulty resisting Nevada’s state sovereignty arguments and striking down the legislation.⁵⁷ After this failed statutory attempt, Nevada focused its efforts on judicial intervention, most recently arguing against the DOE’s Final Environmental Impact Statement for the transport of nuclear fuel to Yucca Mountain.⁵⁸ Despite Nevada’s ongoing efforts, victory has proved elusive. Still, the extensive delays resulting from Nevada’s relentless litigation represent a measured form of success for the state.⁵⁹

2. *Utility Companies*

Indeed, the plausible timeframe for developing Yucca Mountain has slowed with each passing year. Following the passage of the NWPA in 1987, the DOE began the complex and time-consuming process of site characterization. By 1989, it was apparent that the DOE would not complete this undertaking on schedule to dispose of radioactive waste by 1998 as required by the NWPA-authorized contracts with the nuclear industry.⁶⁰ Not surprisingly, on top of its courtroom battles with Nevada, the DOE has faced repeated contractual challenges from nuclear power plants. Issues arose when it became apparent that a repository would not be started—let alone completed—by the deadline the NWPA established for the DOE to accept nuclear waste.⁶¹ Litigation ensued after the DOE published a Notice of Inquiry on the Waste Acceptance Issues in 1994, in which the agency took the preliminary position that it did not have an obligation

⁵⁶ NEV. REV. STAT. § 459.910 (2010).

⁵⁷ The Ninth Circuit invalidated this legislation in *Nevada v. Watkins*, 914 F.2d 1545 (9th Cir. 1990), in which the state advanced a bevy of arguments to prevent the DOE from continuing with site characterization at Yucca Mountain. After rejecting each of Nevada’s arguments, the court held that the NWPA preempted Nevada’s state legislation because of Congress’s clear intent for the DOE to continue with site characterization. *Id.* at 1561.

⁵⁸ See *Nevada v. Dep’t of Energy*, 457 F.3d 78, 93–94 (D.C. Cir. 2006) (denying Nevada’s petition for review of the DOE’s Final Environmental Impact Statement and Record of Decision regarding the transportation of nuclear waste from utility companies to Yucca Mountain).

⁵⁹ For a concise outline of the major litigation, see Annemarie Wall, *Going Nowhere in the Nuke of Time: Breach of the Yucca Contract, Nuclear Waste Policy Act Fallout and Shelter in Private Interim Storage*, 12 ALB. ENVTL. OUTLOOK J. 138 (2007).

⁶⁰ Cotton, *supra* note 35, at 37 (stating that by 1989 the DOE had adjusted its estimate of the date a working repository would be available to 2010); see *infra* Part II for a discussion of the litigation that ensued following the government’s failure to meet the 1998 deadline for accepting nuclear waste.

⁶¹ See Notice of Inquiry on Waste Acceptance Issues, 59 Fed. Reg. 27007, 27008 (May 25, 1994) (projecting 2010 as the earliest possible date for a completed repository).

to accept nuclear waste by the 1998 deadline in the absence of an operational repository.⁶²

The nuclear utilities achieved their first major victory in 1996, when the D.C. Circuit held that, under the NWPA, the Secretary of Energy had an obligation to begin accepting nuclear waste in 1998 despite the unavailability of a geologic repository; since the DOE had not yet breached the contract however, the court deemed it premature to determine an appropriate remedy.⁶³ When the DOE maintained its position that the agency had no duty to accept nuclear waste by the statutory deadline, utility companies responded by seeking a writ of mandamus directing the DOE to comply with its obligations under the NWPA.⁶⁴ The court handed the petitioners a partial victory, holding that while the DOE had an “unconditional obligation” to begin accepting spent nuclear fuel by 1998, the utility companies must follow the remedial scheme provided by the Standard Contract.⁶⁵ In addition, the court determined that the DOE was precluded from arguing “unavoidable” delay on the grounds that the agency had not yet prepared a functioning repository.⁶⁶

This pronouncement proved key in subsequent companion cases decided by the Court of Appeals for the Federal Circuit on August 31, 2000.⁶⁷ The court determined that the potential administrative relief available under the contract “would fall far short of the relief necessary adequately to compensate” the utility companies.⁶⁸ As a result, the court authorized the utility company-petitioners to pursue judicial relief in the United States Court of Federal Claims for damages stemming from the DOE’s breach of contract.⁶⁹ At present, nuclear power companies have filed seventy-two cases against the DOE in the Court of Federal Claims.⁷⁰

⁶² See *id.*

⁶³ See *Ind. Mich. Power Co. v. Dep’t of Energy*, 88 F.3d 1272, 1277 (D.C. Cir. 1996) (vacating the DOE’s Final Interpretation of Nuclear Waste Acceptance Issues).

⁶⁴ See *N. States Power Co. v. Dep’t of Energy (Northern States I)*, 128 F.3d 754, 754 (D.C. Cir. 1997).

⁶⁵ *Id.* at 760–61.

⁶⁶ *Id.* at 761 (“We therefore issue a writ of mandamus precluding DOE from excusing its own delay on the grounds that it has not yet prepared a permanent repository or interim storage facility.”).

⁶⁷ *Me. Yankee Atomic Power Co. v. United States*, 225 F.3d 1336 (Fed. Cir. 2000); *N. States Power Co. v. United States (Northern States II)*, 224 F.3d 1361 (Fed. Cir. 2000).

⁶⁸ *Maine Yankee*, 225 F.3d at 1342 (holding that since there was no dispute that the DOE had not begun accepting waste as mandated, the DOE had breached the contract and “complete relief” would not be available under the limited provisions of the contract).

⁶⁹ See *id.*; see also *Northern States II*, 224 F.3d at 1367 (“In brief, we hold that the unavoidable delays provision deals with delays arising after performance of the contract has begun, and does not bar a suit seeking damages for the government’s failure to begin performance at all by the statutory and contractual deadline of January 31, 1998.”).

⁷⁰ See CIVIL DIV., U.S. DEP’T OF JUSTICE, GENERAL LEGAL ACTIVITIES: FY 2011 BUDGET REQUEST AT A GLANCE 2, available at <http://www.justice.gov/jmd/2011summary/pdf/fy11->

3. *Uncertainty over Regulatory Standards*

Along with countless rounds of litigation concerning state sovereignty and contract liability, the DOE faced another hurdle in the courtroom: uncertainty over the proper regulatory standards to measure future effects of stored radioactive waste. Under the NWPA, the task of setting standards to reduce the risk of environmental harm from radioactive waste release fell to the Environmental Protection Agency (EPA).⁷¹ In 1992, Congress passed the Energy Policy Act, directing the EPA to set site-specific standards for Yucca Mountain consistent with recommendations by the National Academy of Sciences (NAS).⁷² The standards set forth by the EPA provided a ten thousand-year scope for the safety of stored nuclear waste—however, according to the NAS, the relevant time scale for assessing future effects of nuclear waste is closer to one million years.⁷³ Accordingly, the D.C. Circuit vacated the EPA's promulgated standard,⁷⁴ which forced further scientific inquiry and evaluation on the already lengthy site characterization process.

Finally, with all of the requisite constraints more or less in order, fifteen years after Congress passed the NWPA, the DOE officially recommended Yucca Mountain to the President as an appropriate site for the development of a repository.⁷⁵ As required by the NWPA, the DOE also notified the governor and legislature of Nevada regarding the decision.⁷⁶ President George W. Bush submitted his recommendation for approval of the site to Congress one day after the Secretary of Energy's recommendation.⁷⁷ As expected, the state of Nevada exercised its right under the NWPA to submit a notice of disapproval to

civ-bud-summary.pdf (last visited Nov. 14, 2011) (discussing spent nuclear fuel litigation costs).

⁷¹ See 42 U.S.C. § 10141(a) (2006).

⁷² Pub. L. 102-486, § 801(a)(1), 102 Stat. 2776, 2921 (1992) (codified as note to 42 U.S.C. § 10141) (“[T]he Administrator shall, based upon and consistent with the findings and recommendations of the National Academy of Sciences, promulgate, by rule, public health and safety standards for protection of the public from releases from radioactive materials stored or disposed of in the repository at the Yucca Mountain site.”).

⁷³ Nuclear Energy Inst., Inc. v. EPA, 373 F.3d 1251, 1267 (D.C. Cir. 2004).

⁷⁴ *Id.* at 1273.

⁷⁵ RECOMMENDATION BY THE SECRETARY OF ENERGY REGARDING THE SUITABILITY OF THE YUCCA MOUNTAIN SITE FOR A REPOSITORY UNDER THE NUCLEAR WASTE POLICY ACT OF 1982 (Feb. 2002), available at http://www.nuclearfiles.org/menu/key-issues/nuclear-energy/issues/yucca-mountain/secretary-of-energy-recommendation_sar_ocrwm_doe_gov.pdf; see also 42 U.S.C. § 10134(a)(1); Cotton, *supra* note 35, at 38.

⁷⁶ See 42 U.S.C. § 10134(a)(1); Cotton, *supra* note 35, at 38.

⁷⁷ See Cotton, *supra* note 35, at 38. The NWPA, 42 U.S.C. 10134(a)(2)(A), required this action.

Congress.⁷⁸ Congress voted to overrule Nevada and officially approve Yucca Mountain as the site of the planned repository.⁷⁹

II

YUCCA MOUNTAIN: NO LONGER A WORKABLE OPTION

The development of a permanent repository may not have been advancing at a timely pace, but the agencies involved continued to make steady progress following the official approval of Yucca Mountain in 2002. After six additional years of preparation, the DOE submitted its 8,600-page license application for Yucca Mountain to the NRC on June 3, 2008.⁸⁰ During the press conference announcing the submission, the Secretary of Energy cited the twenty years of work that went into preparing the application and stated that he was “confident that the NRC’s rigorous review process will validate that the Yucca Mountain repository will provide for the safe disposal of spent nuclear fuel and high-level radioactive waste.”⁸¹ While the NWPA allocates three years for the NRC to review the license application and issue a final decision approving or disapproving construction authorization,⁸² less than two years after submitting the application, on March 3, 2010, the DOE filed a motion with the NRC seeking to withdraw the license application with prejudice, providing yet another twist along the unpredictable path to Yucca Mountain.⁸³

A. Shifting Priorities

So what changed between 2008 and 2010? Although the DOE’s reversal of its position on Yucca Mountain may seem like a sudden kink in the story, there had been warning signs that a sea change was under way. To fully understand this turn of events, however, it is nec-

⁷⁸ See 42 U.S.C. § 10135(b); VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 44–45.

⁷⁹ See VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 45 (commenting that post-September 11, 2001 concerns about the possibility of future terrorist attacks on temporary storage facilities housing nuclear waste around the nation contributed to the debate in favor of approving the Yucca Mountain site). Congress acted pursuant to 42 U.S.C. § 10135(c).

⁸⁰ The DOE’s license application and other related key documents are on the NRC’s website: <http://www.nrc.gov/waste/hlw-disposal/yucca-lic-app.html>.

⁸¹ Press Release, Sec. of Energy Samuel W. Bodman, Yucca Mountain Press Conference (June 3, 2008), <http://www.id.doe.gov/news/PressReleases/PR080603-YuccaSam/YuccaMountainPressConference.pdf>. The Secretary emphasized the importance of developing a responsible means of dealing with nuclear waste in order to make nuclear energy the option that it needs to be for the nation’s future energy use: “In order to ensure that such an expansion can occur, the United States simply must have a permanent repository This [nuclear waste] material is directed to go to Yucca Mountain by law” *Id.*

⁸² See 42 U.S.C. § 10134(d).

⁸³ U.S. Department of Energy’s Motion to Withdraw, U.S. Dep’t of Energy (High-Level Waste Repository), No. 63-001-HLW (A.S.L.B.P. Mar. 3, 2010) [hereinafter DOE Motion to Withdraw].

essary to explore a particularly dark and unwieldy aspect of American government: politics. On the very same day that the DOE submitted the license application to the NRC, Barack Obama secured the Democratic nomination to run for President in 2008.⁸⁴ The Democratic primary campaign was hard-fought, and amidst the several states with early primary elections the Nevada caucus stands out as having been particularly contentious. The state secured an early voting slot in large part due to Senate Majority Leader Harry Reid (D-Nevada), a key voice in the national political sphere and the Democratic Party.⁸⁵ Like Senator Reid (or perhaps because of Senator Reid), whose indefatigable opposition to Yucca Mountain is well known,⁸⁶ all of the Democratic candidates were united in their opposition to Yucca Mountain.⁸⁷ Indeed, during his campaign, Obama specifically pledged that he would “end the notion of Yucca Mountain.”⁸⁸

After his successful 2008 general-election campaign, now-President Obama began to follow through with that promise. The appointment power is a particularly useful tool for political and administrative control, and the President used it decisively, first by nominating a new Secretary of Energy,⁸⁹ and then, in May of 2009, by appointing a former aide to Senator Reid to be the chairman of the NRC.⁹⁰ The views of other nominees to the NRC were similarly vetted. On behalf of Senator Reid, during the Senate hearings it was explicitly confirmed with each of three prospective nominees (all of whom were subsequently appointed) that they would support the decision to cease review of the Yucca Mountain license application.⁹¹

⁸⁴ Adam Zoll & Steve Layton, *A Historic Race: How the Nomination Was Won*, CHI. TRIB., June 4, 2008, at 6.

⁸⁵ See Mark Z. Barabak & Seema Mehta, *In Nevada, Democrats Duel to the Bitter End*, L.A. TIMES, Jan. 19, 2008, at A14; see also Shailagh Murray & Chris Cillizza, *The Sunday Fix: Democratic Clout Brings Early Caucus to Nevada*, WASH. POST, Nov. 4, 2007, at A2.

⁸⁶ Senator Reid has been attempting to obstruct legislation designed to further the development of Yucca Mountain for over two decades. Through various measures, including numerous threatened filibusters and planned “holds” on bills, Senator Reid has made his position eminently clear. In 1987, he did not have enough political power to prevent the NWPAA designation of Yucca Mountain as the sole site for a national nuclear waste repository, but later in his career, and now as the Senate Majority Leader, his voice has become significantly louder. See VANDENBOSCH & VANDENBOSCH, *supra* note 9, at 90–93.

⁸⁷ See Murray & Cillizza, *supra* note 85 (“One issue in Nevada is settled: All the Democrats oppose dumping nuclear waste at Yucca Mountain.”); see also Barabak & Mehta, *supra* note 85 (identifying Yucca Mountain as an “easy” national issue for Democrats).

⁸⁸ Editorial, *Where Does It All Go?*, N.Y. TIMES, Dec. 20, 2008, at A26.

⁸⁹ See *id.* (noting that Secretary of Energy Steven Chu is “unenthusiastic” about Yucca Mountain).

⁹⁰ See Mary Manning, *Obama Names Ex-Reid Aide to Lead Nuclear Commission*, LAS VEGAS SUN, May 13, 2009, <http://www.lasvegassun.com/news/2009/may/13/former-reid-aide-likely-lead-nuclear-commission/>.

⁹¹ *Nominations Hearing of the S. Env't and Pub. Works Comm.*, 111th Cong. 13–15 (2010), (statements of Sen. Barbara Boxer, Chairman, S. Comm. on Env't and Pub. Works; and

The most public rebuke to the plan for a repository at Yucca Mountain came on January 29, 2010, when the administration directed the Secretary of Energy to establish a Blue Ribbon Commission on America's Nuclear Future to review and evaluate policies for managing nuclear waste, including any "technological and policy alternatives."⁹² The President attributed the need for the Blue Ribbon Commission to the fact that "the Nation's approach, developed more than 20 years ago, to managing materials derived from nuclear activities, including nuclear fuel and nuclear waste, has not proven effective."⁹³ Accordingly, the proposed executive budget for fiscal year 2011 affirmatively stated that: "The Administration has determined that Yucca Mountain, Nevada, is not a workable option for a nuclear waste repository"⁹⁴ Reflecting this stance, the money appropriated to the DOE for radioactive waste management fell from \$288 million in 2009 to an estimated \$197 million in 2010, to a total absence of funding projected for 2011.⁹⁵ The DOE dealt the final blow in March 2010, when it submitted its motion to withdraw the pending license application for the Yucca Mountain repository.

B. The Atomic Safety and Licensing Board Panel Initial Decision

The Atomic Safety and Licensing Board Panel (ASLBP), an independent trial-level adjudicatory body within the NRC, had the task of ruling on the DOE's motion to withdraw.⁹⁶ In its motion to withdraw, the DOE essentially argued that although the NWPB did require the

William D. Magwood IV, George Apostolakis, and William Charles Ostendorff, nominees to be members of the NRC). At one point, the dialogue proceeded as follows:

Sen. Boxer: "Now I have a question here for all three of you from Senator Reid and you could just answer it 'yes' or 'no.' If confirmed, would you second-guess the Department of Energy's decision to withdraw the license application for Yucca Mountain from NRC'S review?"

Mr. Magwood: "No."

Sen. Boxer: "Okay. Anybody else?"

Mr. Apostolakis: "No."

Mr. Ostendorff: "No."

Sen. Boxer: "Thank you. I think he'll be very pleased with that."

⁹² See Memorandum on the Blue Ribbon Commission on America's Nuclear Future 2010 DAILY COMP. PRES. DOC. 20100063 (Jan. 29, 2010) [hereinafter Presidential Memorandum], available at <http://www.gpoaccess.gov/presdocs/2010/DCPD-201000063.pdf>.

⁹³ See *id.*

⁹⁴ OFFICE OF MGMT. & BUDGET, BUDGET OF THE U.S. GOVERNMENT: FISCAL YEAR 2011 (Feb. 1, 2010), available at <http://www.gpoaccess.gov/usbudget/fy11/pdf/budget.pdf>.

⁹⁵ See *id.*

⁹⁶ ASLBP decisions are subject to review by the full Commission. *ASLBP Responsibilities*, U.S. NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/about-nrc/regulatory/adjudicatory/aslbp-respons.html> (last updated Aug. 5, 2011). The three administrative judges who ruled on the DOE's motion are Thomas S. Moore (Chairman), Paul S. Ryerson, and Richard E. Wardwell. For biographical information, see *Atomic Safety and Licensing Board Panel Members*, U.S. NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/about-nrc/organization/panel-members.html> (last updated Sept. 26, 2011).

Secretary of Energy to submit the application to the NRC, there was no limitation on the Secretary's ability to subsequently withdraw the application.⁹⁷ Moreover, the DOE contended that under the NRC's license governing regulations (which applied to this application), the agency could grant withdrawal on whatever terms it desired, that is, with prejudice.⁹⁸ The DOE supplemented these contentions with repeated references to policy decisions, the public interest, and deference to both the agency's interpretation of the NWPA and the executive resolve to pursue alternatives to Yucca Mountain.⁹⁹

Despite the DOE's none-too-subtle efforts to remind the ASLBP of its proper place in the grand scheme of executive decision making—which, based on the DOE's motion, involves nothing more than deference to the policy judgments of more qualified parties—the ASLBP delivered a resounding denial of the DOE's motion to withdraw.¹⁰⁰ The ASLBP first addressed whether the DOE had the authority to withdraw the application under the NWPA, quickly concluding that “[u]nless Congress directs otherwise, DOE may not single-handedly derail the legislated decision-making process by withdrawing the Application.”¹⁰¹ The decision focused heavily on the DOE's “illogical” theory that the executive is the sole authority responsible for determining whether or not following the NWPA is a good policy choice; the opinion emphasizes the damage this position does to congressional power.¹⁰²

Perhaps the key textual point that undermined the DOE's argument for discretion, however, is the distinction between language in

⁹⁷ See DOE Motion to Withdraw, *supra* note 83, at 6–7; see also U.S. Department of Energy's Reply to the Responses to the Motion to Withdraw, U.S. Department of Energy (High-Level Waste Repository), No. 63-001-HLW (A.S.L.B.P. May 27, 2010) (elaborating on these central points).

⁹⁸ See DOE Motion to Withdraw, *supra* note 83, at 2–3, 5.

⁹⁹ See *id.* at 1–4, 7–8; *id.* at 4 (“Settled law . . . directs the NRC to defer to the judgment of policymakers within the Executive Branch.”).

¹⁰⁰ See Memorandum and Order at 3, U.S. Dep't of Energy (High-Level Waste Repository), No. 63-001-HLW (A.S.L.B.P. June 29, 2010) [hereinafter ASLBP Order]. The ASLBP also granted the intervention petitions filed by the State of Washington, the State of South Carolina, Aiken County, South Carolina, the Prairie Island Indian Community, and the National Association of Regulatory Utility Commissioners (as well as an *amicus curiae* filing by the Florida Public Service Commission), concluding that each petitioner had established standing. *Id.* at 2–3.

¹⁰¹ See *id.* at 5, 10 (“DOE contends that its conclusion that Yucca Mountain is not a ‘workable option’ and that ‘alternatives will better serve the public interest’ constitutes a policy judgment with which the NRC should not interfere. Insofar as relevant, however, the pertinent policy—that DOE's Yucca Mountain Application should be decided on the merits by the NRC—is footed on controlling provisions of the Nuclear Waste Policy Act that DOE lacks authority to override.” (footnote omitted)).

¹⁰² See *id.* at 7–8 (discussing how Congress provided detailed steps in the NWPA and stressing that under the NWPA the “ultimate authority” for choosing Yucca Mountain lay not with the President but with Congress).

the site characterization phase and the application phase of the NWPA.¹⁰³ While the former section permits the DOE to determine Yucca Mountain to be “unsuitable,” the latter section does not include such language.¹⁰⁴ Essentially, the ASLBP decision intimates that the DOE missed its chance to make a policy-oriented judgment, rather than a scientific conclusion, regarding the workability of Yucca Mountain for development as a repository. This position is further supported by the ASLBP’s evaluation of Congress’s approval of Yucca Mountain in 2002, when the legislative body “reinforced the expectation in the 1982 Act that the project would be removed from the political process.”¹⁰⁵

C. The Aftermath

The ASLBP’s June 29, 2010 decision threw a wrench into the slowly grinding gears of the Administration’s plan to disassemble Yucca Mountain. Reactions came quickly on all fronts, but they were laced with caution.¹⁰⁶ Even prior to the ASLBP decision, the intervening petitioners¹⁰⁷ filed suit in the D.C. Circuit seeking to prevent the DOE from withdrawing the license application and arguing that under the NWPA it would be contrary to legislative will and in violation of statute to allow the Administration to abandon Yucca Mountain.¹⁰⁸ The court initially stayed the proceeding until the ASLBP issued a decision¹⁰⁹ and then subsequently until the full vote by the NRC.¹¹⁰

With the courts slogging through still more NWPA-related litigation, neither Congress nor the executive opted to wait patiently for a verdict. Instead, just days after the ASLBP decision, approximately ninety members of Congress drafted and signed a letter to the Secretary of Energy requesting that the DOE cease its efforts to dismantle Yucca Mountain pending resolution of litigation in the D.C. Cir-

¹⁰³ See *id.* at 8–9.

¹⁰⁴ See *id.* at 8; see also 42 U.S.C. §§ 10133(c)(3), 10134 (2006).

¹⁰⁵ See ASLBP Order, *supra* note 100, at 9 (considering legislative history and congressional intent).

¹⁰⁶ See Siobhan Hughes & Rebecca Smith, *Panel Blocks Move to Scrap Yucca Site*, WALL ST. J., June 30, 2010, at A6 (discussing the reaction to the ASLBP decision by the nuclear power industry and its allies, the DOE, and Nevada politicians).

¹⁰⁷ The petitioners are Aiken County, Robert L. Ferguson, William Lampson, Gary Petersen, the State of South Carolina, the State of Washington, and intervenor-petitioners National Association of Regulatory Utility Commissioners. The four cases filed during the spring of 2010 were consolidated under the name of the first case filed (*In re Aiken Cnty.*, No. 10-1050 (D.C. Cir.)). See Brief of Petitioner at 3–4, *In re Aiken Cnty.*, No. 1050 (D.C. Cir. June 18, 2010).

¹⁰⁸ See *id.* at 35–46.

¹⁰⁹ See *In re Aiken Cnty.*, No. 10-1050 (stayed by D.C. Circuit July 28, 2010).

¹¹⁰ See *infra* notes 145–49 and accompanying text.

cuit.¹¹¹ The power of congressional oversight also provided a useful tool for demanding that the DOE substantiate the reasons behind its endeavors.¹¹² In a hearing held by the House Committee on the Budget, questioning verged on hostile when members of Congress became frustrated with the DOE Undersecretary's answers about why Yucca Mountain was no longer an option¹¹³ and about what temporary storage measures were available given the delay in developing a permanent repository.¹¹⁴ During the hearing, committee members also elicited information from the Undersecretary regarding the DOE's intention to terminate all positions within its office handling the Yucca Mountain licensing process by October 1, 2010, rendering any subsequent contrary decision not necessarily futile, but certainly ineffective in the short term.¹¹⁵

¹¹¹ Letter from 91 Members of the Congress of the United States to Secretary of Energy Stephen Chu, United States Department of Energy (July 6, 2010), available at http://murray.senate.gov/public/_cache/files/f849572d-f3eb-44f2-931d-3a0129eb32d5/Yucca%20Letter.pdf (expressing disappointment that the DOE had "overstepped its bounds and . . . ignored congressional intent").

¹¹² See H.R. REP. NO. 111-550, at 1 (2010) (requesting the President and directing the Secretary of Energy to "provide certain documents to the House of Representatives relating to the Department of Energy's application to foreclose use of Yucca Mountain as a high-level nuclear waste repository"), available at <http://www.gpo.gov/fdsys/pkg/CRPT-111hrpt550/huml/CRPT-111hrpt550.htm>.

¹¹³ See *Hearing on Budget Implications*, supra note 4, at 16 (statement of Rep. John M. Spratt, Jr., Chairman, H. Comm. on the Budget). Chairman Spratt (D-S.C.) probed for an answer as to what exactly makes Yucca Mountain "unworkable after all of these years and all of this money spent." Representative Cynthia Lummis (R-Wyo.) attempted to force DOE Undersecretary Kristina Johnson to commit to a position regarding the administration's decision. See *id.* at 25 (statement of Rep. Cynthia M. Lummis, Member, H. Comm. on the Budget). Interestingly, Undersecretary Johnson resigned from the DOE less than two months after this hearing. See George Lobsenz, *Three Top Officials Leaving in DOE Management Exodus*, THE ENERGY DAILY (Oct. 8, 2010), http://www.theenergydaily.com/publications/ed/Three-Top-Officials-Leaving-In-DOE-Management-Exodus_5164.html (reporting that Secretary Steven Chu issued an internal memorandum on September 16, 2010 announcing Johnson's resignation).

¹¹⁴ See *Hearing on Budget Implications*, supra note 4, at 24 (statement of Rep. Betty McCollum, Member, H. Comm. on the Budget). Representative McCollum expressed her opinion that one hundred to three hundred years is not "temporary" storage. *Id.* It is interesting that the divide over Yucca Mountain is not expressed solely via political party poles; instead, geography tends to play a more important role because politicians representing states that contain high quantities of spent nuclear fuel tend to be more active in pushing for a permanent storage option. See *Purchaser Fee Payments to the Nuclear Waste Fund as of December 31, 2009*, U.S. DEP'T OF ENERGY, http://energy.gov/sites/prod/files/edg/media/purchaser_fee_payments.pdf (last visited Nov. 14, 2011).

¹¹⁵ See *Hearing on Budget Implications*, supra note 4, at 22 (statement of Rep. Michael K. Simpson, Member, H. Comm. on the Budget and Kristina Johnson, Undersecretary, Dep't of Energy). In response to a question from Representative Simpson (R-Idaho) about whether the DOE would "still have the personnel in place," Undersecretary Johnson responded: "[W]e believe that we have the right to withdraw the motion and to close down Yucca Mountain. So, we have had to move and make sure that the employees can find other positions. So, therefore, we will not have employees as of October 1, and we would have to restart that process." *Id.* See also DEP'T OF ENERGY, FISCAL YEAR 2011 CONG. BUDGET REQUEST: BUDGET HIGHLIGHTS 5, 8 (2010), available at <http://www.cfo.doe.gov/budget/>

Unlike the outspoken congressional reaction, the executive response has been one of deafening silence. Although discord manifested itself among the NRC commissioners in early October after the NRC directed its staff to handle the Yucca Mountain application in congruence with the agency fiscal year 2011 budget request (which contemplates the project's termination),¹¹⁶ currently the NRC has ceased reviewing the licensing application and failed to take definitive final action on the ASLBP decision.¹¹⁷ Recent developments indicate that relations between the commissioners are strained, to put it mildly. In October 2011, the NRC commissioners sent a letter to White House Chief of Staff William L. Daley to express their "grave concerns regarding the leadership and management practices exercised by Nuclear Regulatory Commission (NRC) Chairman Gregory Jaczko."¹¹⁸ The House Committee on Oversight and Government Reform subsequently held a hearing in December 2011.¹¹⁹ Pursuant to

11budget/Content/FY2011Highlights.pdf (affirming that the administration "has decided to terminate the Office of Civilian Radioactive Waste Management" in accord with its decision not to develop a repository at Yucca Mountain).

¹¹⁶ Commissioner Ostendorff disagreed with the NRC's guidance to its staff to direct their handling of the Yucca Mountain application in congruence with the agency's fiscal year 2011 budget request—which contemplates the project's termination. See Memorandum from NRC Commissioner Ostendorff on Commission Direction on Staff Budget Guidance Under Fiscal Year (FY) 2011 Continuing Resolution to Chairman Jaczko and Commissioners Svinicki, Apostolakis, and Magwood (Oct. 6, 2010); Memorandum from NRC Commissioner Ostendorff on Disagreement with Staff Budget Guidance Under Fiscal Year 2011 Continuing Resolution to Chairman Jaczko and Commissioners Svinicki, Apostolakis, and Magwood (Oct. 8, 2010), both available at <http://www.nrc.gov/reading-rm/doc-collections/commission/comm-secy/2010/2010-0002comwco-redacted.pdf>.

¹¹⁷ See sources cited *infra* notes 146–48; see also TODD GARVEY, CONG. RESEARCH SERV., R41675, CLOSING YUCCA MOUNTAIN: LITIGATION ASSOCIATED WITH ATTEMPTS TO ABANDON THE PLANNED NUCLEAR WASTE REPOSITORY 19–22 (2011), available at http://assets.opencrs.com/rpts/R41675_20110304.pdf (speculating on the causes of NRC's delay and future considerations in determining the fate of Yucca Mountain).

¹¹⁸ Letter from four commissioners of the Nuclear Regulatory Comm'n to White House Chief of Staff William L. Daley (Oct. 13, 2011), available at http://oversight.house.gov/index.php?option=com_content&view=article&id=1535:issa-asks-white-house-to-testify-at-hearing-on-nrc-respond-to-concerns-from-nuclear-regulatory-commissioners-that-chairman-jaczko-is-causing-serious-damage&catid=22:releasesstatements. The letter lists the commissioners' grievances, including charges that Chairman Jaczko "created a high level of fear and anxiety resulting in a chilled work environment" and "[i]nteracted with us, his fellow Commissioners, with such intemperance and disrespect that the Commission no longer functions as effectively as it should." *Id.*

¹¹⁹ For transcripts of the witness's statements at the hearing, see *The Leadership of the Nuclear Regulatory Commission*, COMM. ON OVERSIGHT & GOV. REFORM (Dec. 14, 2011), http://oversight.house.gov/index.php?option=com_content&view=article&id=1536%3A12-14-2011-qthe-leadership-of-the-nuclear-regulatory-commissionq&catid=12&Itemid=20. See also Matthew L. Wald, *Leader of Nuclear Agency Hears Litany of Objections*, N.Y. TIMES, Dec. 15, 2011, at A30 (characterizing exchanges at the hearing as ranging from "merely testy to caustic").

the NHPA, further action on Yucca Mountain cannot proceed without NRC approval of the licensing application.¹²⁰

The nation is thus left at an impasse at a very difficult moment. In the wake of the Japanese nuclear disaster, public support for nuclear power is even lower than it was following the Three Mile Island partial core meltdown.¹²¹ Who has the power to break this standoff and push the NRC to fulfill its statutory mandate? Two key legal issues complicate this query. First, it is unclear whether litigation may proceed at all without final action by the NRC. Second, even if the first hurdle is surmounted, it is uncertain that any court will grant standing to petitioners who suffer generalized harm and seek to challenge the NRC's failure to follow its mandate.

III

MODERN STANDING DOCTRINE AND THE INDEPENDENT AGENCIES

The chaotic history of the NHPA provides a unique opportunity to examine the boundaries of the Supreme Court's prudential limitation on petitioners claiming generalized grievances and to consider broader questions on the application of modern standing doctrine in cases involving independent agency action. Because of the Court's reluctance to meddle in matters of executive and legislative prerogative, the standard judicial response to petitioners who suffer uniform harm is to seek relief through the political process. While this directive is proper in most cases, its viability relies on the capacity of the political process to redress the asserted generalized harm. Since the NRC is an independent agency divorced from the controls of the political process, the Court should recognize the inability of the electoral system to provide adequate relief and accordingly, proffer a judicial forum for redress.

A. Standing

The Court's standing doctrine is traditionally rooted in separation of powers principles.¹²² Since Article III judges are appointed for

¹²⁰ See 42 U.S.C. § 10133 (2006).

¹²¹ See Michael Cooper & Dalia Sussman, *Poll Shows Public is Losing Faith in Nuclear Power*, N.Y. TIMES, Mar. 23, 2011, at A15 (reporting that "[t]he unfolding crisis in Japan occurred just as many Americans believed that nuclear power was poised to make a comeback in the United States," and that now "nearly two-thirds of those polled said they were concerned that a major nuclear accident might occur in this country—including 3 in 10 who said they were 'very concerned' by such a possibility").

¹²² See, e.g., *Allen v. Wright*, 468 U.S. 737, 752 (1984) ("[T]he law of Art. III standing is built on a single basic idea—the idea of separation of powers."). See generally Robert J. Pushaw, Jr., *Justiciability and Separation of Powers: A Neo-Federalist Approach*, 81 CORNELL L. REV. 393, 472–77 (1996) (providing a brief overview of the Court's history shaping stand-

life and not directly accountable to the people, the fear of errant judicial meddling with the executive and legislative manifestation of majority will is of special concern. In response—and led by the Article III requirement of a case or controversy¹²³—over time, the Court has recognized a constitutional core of standing prerequisites and developed a set of self-imposed limitations.¹²⁴ Pursuant to the Court's constitutional requirements, a petitioner must experience concrete injury¹²⁵ that is fairly traceable to the challenged government action or inaction¹²⁶ and that is likely to be redressed by a favorable judicial decision.¹²⁷ Prudential controls prevent the Court from hearing both claims that fall outside the zone of interests that the relevant statute is intended to protect¹²⁸ and generalized grievances.¹²⁹

ing doctrine with respect to separation of powers); Antonin Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 SUFFOLK U. L. REV. 881, 881 (1983) (“[T]he judicial doctrine of standing is a crucial and inseparable element of that [separation of powers] principle, whose disregard will inevitably produce . . . an overjudicialization of the processes of self-governance.”).

¹²³ See U.S. CONST. art. III, § 2; *Allen*, 468 U.S. at 750 (“[T]he ‘case or controversy’ requirement defines with respect to the Judicial Branch the idea of separation of powers on which the Federal Government is founded.”).

¹²⁴ See, e.g., Scalia, *supra* note 122, at 885 (reviewing—but not endorsing—the Court’s division of standing into two layers: “prudential limitations of standing” and “core” constitutional requirements).

¹²⁵ See *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992).

¹²⁶ See *Massachusetts v. EPA*, 549 U.S. 497, 517 (2007) (citing *Lujan*, 504 U.S. at 560–61).

¹²⁷ *Allen*, 468 U.S. at 751 (1984) (citing *Simon v. E. Ky. Welfare Rights Org.*, 426 U.S. 26, 38, 41 (1976)).

¹²⁸ See *Ass’n of Data Processing Serv. Orgs. v. Camp*, 397 U.S. 150, 153 (1970) (“The question of standing . . . concerns, apart from the ‘case’ or ‘controversy’ test, the question whether the interest sought to be protected by the complainant is arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question.”).

¹²⁹ The Court has repeatedly held that it is insufficient to allege mere government violation of the law. See *Allen*, 468 U.S. at 754 (“[A]n asserted right to have the Government act in accordance with law is not sufficient, standing alone, to confer jurisdiction on a federal court.”); see also *Schlesinger v. Reservists Comm. to Stop the War*, 418 U.S. 208, 220–21 (1974) (affirming that standing cannot be founded upon “an interest . . . which is held in common by all members of the public, because of the necessarily abstract nature of the injury all citizens share”). Although categorized as prudential here, Justice Scalia’s majority opinion in *Lujan* reveals his intent to convert the judicial limitation on entertaining generalized grievances into a constitutional restriction. See 504 U.S. at 575–78. Although too simplistic an explanation for a very complex opinion, the primary justification for this stance is founded in separation of powers ideology: when citizens are collectively affected by government action they should turn not to the unelected judiciary for relief, but to the political process. Justice Scalia’s prior academic work offers additional insight: “[T]he law of standing roughly restricts courts to their traditional undemocratic role of protecting individuals and minorities against impositions of the majority, and excludes them from the even more undemocratic role of prescribing how the other two branches should function in order to serve the interest of the majority itself.” Scalia, *supra* note 122, at 894. While Justice Scalia is not alone in his belief regarding the separation of powers and the effect of allowing generalized grievances to be aired in court, numerous Justices have expressed opposing views. See *Massachusetts v. EPA*, 549 U.S. at 522, 526 (holding that

Traditionally, the Court does not allow petitioners who have generalized grievances to gain access to courts on this basis alone because the political process is the more appropriate vehicle for citizens to voice their collective dissent. However, rather than properly isolating the Court from the political process, refusing access to courts in all cases of widespread harm can actually undermine the constitutional role assigned to the judiciary. On occasion, the executive operates through an independent agency—such as the NRC—in implementing executive will. Although the independent agency model has withstood a variety of attacks over the years since its creation,¹³⁰ these administrative bodies are not held directly accountable via the political process.¹³¹ Because agency officials are not elected and gaps exist in the executive and legislative ability to supervise agency activity, resorting to the political process is insufficient to assure accountability.¹³² Thus, in the unusual (but now manifest) case of unruly independent agency behavior, there is only one branch of the government remaining to provide oversight: the judiciary.

B. Independent Agencies

Although administrative agencies—independent or otherwise—are often viewed as part of the executive branch, their technical placement in the tripartite configuration is nebulous at best.¹³³ This confu-

Massachusetts had standing to challenge the EPA's denial of its rulemaking petition because even though "climate-change risks are 'widely shared'" the state nonetheless experienced the risk of real harm); see also *FEC v. Akins*, 524 U.S. 11, 23–25 (1998) (distinguishing between widely shared harm that is abstract, which is inappropriate to establish standing, and sufficiently concrete injury that is suffered by a large number of individuals, which is an appropriate basis for granting standing); see also *Schlesinger*, 418 U.S. at 238 (Douglas, J., dissenting) ("To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody." (quoting *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669, 687 (1973))).

¹³⁰ See generally Charles N. Steele & Jeffrey H. Bowman, *The Constitutionality of Independent Regulatory Agencies Under the Necessary and Proper Clause: The Case of the Federal Election Commission*, 4 YALE J. ON REG. 363 (1987) (offering a defense of the independent agency model grounded in the Necessary and Proper Clause and proper deference to the legislative branch).

¹³¹ I do not mean to suggest that independent agencies are in any way unconstitutional. For a review of the judicial history approving of independent agencies, see *id.* at 365–68. Indeed, although this is a strong statement, I mean it in its most basic form: agency officials are neither elected nor freely removable by elected authorities. See *infra* Part III.B; see also Lloyd N. Cutler & David R. Johnson, *Regulation and the Political Process*, 84 YALE L.J. 1395, 1399 (1975) (arguing that agencies "fail when they reach substantive policy decisions . . . that do not coincide with what the politically accountable branches of government would have done").

¹³² See Cutler & Johnson, *supra* note 131, at 1402–06.

¹³³ See *Fed. Mar. Comm'n v. S.C. State Ports Auth.*, 535 U.S. 743, 773 (2002) (Breyer, J., dissenting) ("Although Members of this Court have referred to agencies as a 'fourth branch' of Government, *FTC v. Ruberoid Co.*, 343 U.S. 470, 487 (1952) (Jackson, J., dissenting), the agencies, even 'independent' agencies, are more appropriately considered to be

sion comes in part from the combination of functions present within any given agency. For example, the NRC is responsible for devising regulations applicable to the nuclear industry, issuing orders to licensees, and adjudicating related matters.¹³⁴ The difficulty in categorizing independent agencies is further compounded because none of the three primary branches of government is bestowed with complete control over agency activity. Indeed, although the executive and legislative branches must authorize independent agency formation, neither branch exerts complete control over their subsequent operation.

Executive control is primarily a function of the President's Article II power to appoint government officials (subject to the Senate's corresponding duty of confirmation).¹³⁵ However, the President has the authority to appoint only the commissioners at the NRC, and the Senate opted to limit the President's ability to remove commissioners at will.¹³⁶ The President is able to maintain some oversight of NRC activity via the requirements of the regulatory planning process governed by the Office of Management and Budget.¹³⁷ The legislature, too, re-

part of the Executive Branch." (citing *Freytag v. Comm'r*, 501 U.S. 868, 819 (1991) (Scalia, J., concurring in part and concurring in the judgment)); see also Peter L. Strauss, *The Place of Agencies in Government: Separation of Powers and the Fourth Branch*, 84 COLUM. L. REV. 573, 578-79 (1984) (arguing against a strict separation of powers classification of administrative agencies, in favor of separation of functions flexibility and checks and balances principles).

¹³⁴ See NRC: Organizations and Functions, U.S. NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/about-nrc/organization.html> (last updated Mar. 31, 2011).

¹³⁵ U.S. CONST. art. II, § 2 ("[The President] shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law . . .").

¹³⁶ See 42 U.S.C. § 5841(a)(5)(e) (2006) ("Any member of the Commission may be removed by the President for inefficiency, neglect of duty, or malfeasance in office."); *Humphrey's Ex'r v. United States*, 295 U.S. 602, 629-32 (1935) (limiting the reach of the holding in *Myers v. United States*, 272 U.S. 52 (1926), to at-will removal for purely executive officers); see also *Wiener v. United States*, 357 U.S. 349, 356 (1958) (holding that the President does not have the power to remove "a member of an adjudicatory body" at will). Scholars have extensively debated the removal problem in the literature; however, some see this issue as missing the main point. See, e.g., Gary Lawson, *The Rise and Rise of the Administrative State*, 107 HARV. L. REV. 1231, 1244-45 (1994) (arguing that the Vesting Clause in Article II makes the President's removal power "either constitutionally superfluous or constitutionally inadequate"). For my purposes, discussing the inability of the President to remove Commissioners at will merely serves to show a gap in the overall structure of executive supervision of independent agencies. When coupled with similar holes in legislative and judicial oversight, this disconnect contributes to the risk of unfettered agencies running roughshod over majority will.

¹³⁷ Since President Bill Clinton issued Executive Order 12,866 in September 1993, independent agencies are no longer exempt from this process. See Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2288 (2001) (discussing the "hints of an expansive understanding of the President's authority over the sphere of administration" revealed by Executive Order 12,866, but noting that independent agencies were spared from the most dramatic change made by President Clinton—namely, that the President had the authority

tains supervisory power over NRC activity; indeed, congressional committees can make agency officials very uncomfortable politically if so desired.¹³⁸ In addition, the legislative branch is responsible for drafting the organic statute that determines agency organization and the scope of its mandate.¹³⁹ Congress may also pass subsequent legislation that directly affects independent agencies, such as the NWPA.¹⁴⁰ Of course, the legislative power is subject to an executive check: the presidential veto.¹⁴¹

Despite these collective tools, neither the executive nor the legislative branch retains complete control of independent agencies like the NRC. There are important arguments for why this is a positive and useful state of affairs.¹⁴² The counter-argument, however, is that independent agency commissioners are not directly subject to primary government authority and as such are not responsive to the electorate. Thus the question remains: how do we reconcile the value of independence with the necessity of oversight?

IV

EXPANDED STANDING TO CHALLENGE THE ACTIONS OF THE NRC

There is only one viable answer to this query: the judiciary. Although the drafters of the Constitution may not have foreseen independent agencies or the challenges of regulating the nuclear power industry, they did anticipate the likelihood of evolving government needs. The American tripartite model depends on balance and accountability, and more importantly, on the three central branches to ensure these ideals. Given the risks of excess power concentrated in otherwise unchecked independent agencies, courts are the proper forums in which to seek review of the NRC's failure to pursue its objectives under the NWPA. To facilitate its service in this capacity, the

to control executive branch agencies "in the exercise of their delegated rulemaking power").

¹³⁸ See *supra* notes 113–15 for an amusing example in which members of Congress grilled representatives from the DOE over prospective plans regarding Yucca Mountain.

¹³⁹ See, e.g., 42 U.S.C. §§ 5841–5852 (establishing the NRC).

¹⁴⁰ *Id.* §§ 10101–10270.

¹⁴¹ U.S. CONST. art. I, § 7.

¹⁴² Independent agencies often regulate highly technical fields (such as the nuclear power industry) or politically sensitive matters (such as campaign financing for federal elections). As a result, there are defensible reasons to sever these agencies from political control. See, e.g., Steele & Bowman, *supra* note 130, at 370–72 (discussing the creation of the Federal Election Commission and "Congress's belief that campaign finance laws could not regulate the activities of the President's own reelection committee unless the execution of those laws was free from his direct control"); see also Cutler & Johnson, *supra* note 131, at 1402–04 (discussing the idea that agencies should be independent from political forces in order to best serve the public interest and to allow regulators to develop stable policies).

Supreme Court should reaffirm recent precedent granting specialized status to states and recognize the inapplicability of its prudential limitation on entertaining claims of generalized harm brought by petitioners in cases involving independent agency action.¹⁴³

A. Granting Early Access

The Yucca Mountain litigation still unfolding in the D.C. Circuit might indicate a move toward embracing this framework.¹⁴⁴ The D.C. Circuit initially stayed the *In re Aiken County* litigation to await final agency action before proceeding,¹⁴⁵ but after more than five months of silence by the NRC following the ASLBP decision, the court refused to delay any further.¹⁴⁶ Although the Commission retains final authority over whether to accept the ASLBP decision,¹⁴⁷ the NRC had made no move to release the results of a vote that allegedly occurred several months prior.¹⁴⁸ Without issuing an opinion expressing its

¹⁴³ Although challenges of this nature will often resemble impermissible generalized grievances, the Court should look at the purpose underlying this limitation—namely, encouraging people to use the political process—rather than its superficial interpretation.

¹⁴⁴ See *In re Aiken Cnty.*, 645 F.3d 428, 430 (D.C. Cir. 2011), *petition for a writ of mandamus filed*, No. 11-1271, 2011 WL 3584396 (D.C. Cir. July 29, 2011). On appeal, the petitioners challenge both the DOE's authority to withdraw the licensing application from the NRC under the NWPA and the executive determination to abandon Yucca Mountain.

¹⁴⁵ The NWPA authorizes judicial review following "final decision or action of the . . . Commission." 42 U.S.C. 10139(a)(1).

¹⁴⁶ See Order Granting Motion to Lift Stay and Expedite Case, *In re Aiken Cnty.*, No. 10-1050 (D.C. Cir. Dec. 10, 2010) (per curiam).

¹⁴⁷ See OFFICE OF THE GEN. COUNSEL, U.S. NUCLEAR REGULATORY COMM'N, UNITED STATES NUCLEAR REGULATORY COMMISSION STAFF PRACTICE AND PROCEDURE DIGEST: COMMISSION, APPEAL BOARD, AND LICENSING BOARD DECISIONS JULY 1972–AUGUST 2009, NUREG-0386, Digest 16, § 4.3, at 8 (2010), available at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0386/d16/sr0386d16.pdf> ("[T]he Licensing Board will issue its initial decision . . . [which] can conceivably constitute the ultimate agency decision on the matter addressed in the hearing provided that it is not modified by subsequent Commission review.").

¹⁴⁸ See Editorial, *End the NRC Stalling on Yucca Mountain Decision*, SEATTLE TIMES, Nov. 18, 2010, http://seattletimes.nwsources.com/html/editorials/2013469370_edit19yucca.html ("Four of the commissioners—a fifth recused himself – voted by Sept. 15, as they each confirmed in recent letters to Sen. Jim Inhofe, R-Okla. Jaczko, who voted Aug. 26, said he withdrew his vote and revoted Oct. 29—just days before his patron, former boss and fervent opponent of Yucca Mountain, Sen. Harry Reid, barely fended off a tough Nov. 2 challenge."). The results of the vote over the ASLBP decision were finally released on September 9, 2011. Unfortunately, this long-awaited determination merely raised additional issues because the Commissioners deadlocked, voting two against two. See Matthew L. Wald, *How Dead is Yucca Mountain?*, N.Y. TIMES GREEN BLOG (Sept. 12, 2011, 7:16 A.M.), <http://green.blogs.nytimes.com/2011/09/12/how-dead-is-yucca-mountain/>; see also Steve Tetreault, *NRC Urged to 'Clarify' Yucca Ruling*, LAS VEGAS REVIEW-JOURNAL POLITICAL EYE BLOG (Sept. 13, 2011, 8:28 A.M.), http://www.lvrj.com/blogs/politics/NRC_urged_to_clarify_yucca_ruling.html (presenting the apparently contradictory dual rulings from the NRC: on the one hand, the deadlock over whether the DOE could legally withdraw the license application, and on the other hand, the decision to direct the ASLBP to finish proceedings on Yucca Mountain by the end of the month).

motivation, the D.C. Circuit scheduled a date for oral argument.¹⁴⁹ This is a step in the direction of more muscular judicial review. The D.C. Circuit's refusal to indefinitely await the NRC decision shows the court's unwillingness to defer to the independent agency's efforts to resist review. This action may constitute an early move toward acknowledging that independent agencies warrant stricter treatment in light of their isolation from political accountability.

However, the significance of the D.C. Circuit's action may be lessened by subsequent proceedings. On July 1, 2011, the court dismissed the claims presented by the petitioners in *In re Aiken County* for lack of jurisdiction.¹⁵⁰ First, the court reasoned that the petitioners' claim challenging the DOE's attempt to withdraw the license application from the NRC was not ripe because the Commission's review of the ASLBP ruling was ongoing.¹⁵¹ The court tempered this decision with the caveat that "[v]ery soon . . . the contingencies discussed above should be resolved" and additionally, that if the NRC failed to take prompt action the petitioners would have a new cause of action: compelling unreasonably delayed agency action.¹⁵² Second, the court determined that it did not have jurisdiction over the petitioners' claim challenging the DOE's policy decision to abandon Yucca Mountain since the petitioners could not point to any legally significant final agency action.¹⁵³

This ruling does not end the fight against Yucca Mountain. Within a month, the petitioners filed in the D.C. Circuit seeking a writ of mandamus to compel the NRC to conclude its review of the ASLBP decision and, furthermore, to abide by the terms of the NWPA by fully considering the DOE's license application for Yucca Mountain.¹⁵⁴ On September 9, 2011, the NRC finally disclosed the results of its vote

¹⁴⁹ See Order Scheduling Oral Argument, *In re Aiken Cnty.*, No. 10-1082 (D.C. Cir. Jan. 10, 2011) (setting oral argument for March 22, 2011 after the December 10, 2010 order lifted the stay and set a revised briefing schedule).

¹⁵⁰ *In re Aiken Cnty.*, 645 F.3d 428, 430 (D.C. Cir. 2011).

¹⁵¹ *Id.* at 434–36.

¹⁵² *Id.* at 436; see *Telecomms. Research & Action Ctr v. FCC*, 750 F.2d 70, 72 (D.C. Cir. 1984) (“[W]here a statute commits final agency action to review by the Court of Appeals, the appellate court has exclusive jurisdiction to hear suits seeking relief that might affect its future statutory power of review.”).

¹⁵³ *In re Aiken Cnty.*, 645 F.3d at 436–37. The court found that petitioners were “[u]nable to point to any unlawful action by the DOE,” so they elected to challenge the “DOE’s public announcement regarding Yucca Mountain.” *Id.* at 437. It further found that “[n]either the NWPA nor the APA authorizes this type of legal attack.” *Id.* The court therefore held that the petitioners’ “general complaints about the DOE’s new policy regarding Yucca Mountain are simply not justiciable.” *Id.*

¹⁵⁴ See *Petition for Writ of Mandamus (Agency Action Unreasonably Withheld)*, *In re Aiken Cnty.*, No. 11-1271, 2011 WL 3584396, at *1 (D.C. Cir. July 29, 2011).

over the ASLBP decision: two commissioners voted to uphold the ruling and two commissioners voted to overturn it.¹⁵⁵

B. Standing

Although the NRC's deadlock over the ASLBP decision complicates the issues, a key question remains over which petitioners will eventually secure standing to pursue the litigation. Currently, two states (South Carolina and Washington), as well as three individuals, are represented in the *In re Aiken County* litigation in the D.C. Circuit.¹⁵⁶ But there are at least three classes of challengers likely to present justiciable claims against the government arising out of the NWPAs: the private utility companies in contract with the government under the NWPAs, the states containing nuclear waste, and the residents of these states.¹⁵⁷ Regardless of which petitioners ultimately achieve standing, a second and perhaps more critical question remains: which petitioners are in the best position to solicit a judicial decision competent to reinstate the government's obligation to follow through with Yucca Mountain?

1. *Utility Companies*

Under the NWPAs, the nation's nuclear utility companies must enter into Standard Contracts with the DOE in order to obtain renewal of their operating licenses.¹⁵⁸ This unusual arrangement between the utility companies and the DOE has resulted in an awkward coupling. By intermingling the Standard Contract with the NWPAs, Congress effectively bound the parties together in a manner that has had unforeseen and problematic consequences. First, although the courts have firmly established government liability for damages owed to the utility companies, they have also prohibited these damages from being paid out of the Nuclear Waste Fund.¹⁵⁹ As a result, the

¹⁵⁵ See sources cited *supra* note 148.

¹⁵⁶ *In re Aiken Cnty.*, 645 F.3d at 431.

¹⁵⁷ Under the Administrative Procedure Act, petitioners have a right to judicial review if they are "adversely affected or aggrieved by agency action within the meaning of a relevant statute." 5 U.S.C. § 702 (2006). The NWPAs authorize the U.S. Courts of Appeals to have exclusive jurisdiction for "review of any final decision or action of the Secretary, the President, or the Commission under this part." 42 U.S.C. § 10139(a)(1)(A) (2006). There is also a much broader fourth class of potential petitioners composed of tribal governments and local government entities. See, e.g., ASLBP Order, *supra* note 100, at 2-3 (granting petitions to intervene filed by the Prairie Island Indian Community and Aiken County, South Carolina). The question of whether these petitioners should be granted standing is beyond the scope of this Note due to the virtually unlimited possible members of the fourth class.

¹⁵⁸ See 42 U.S.C. § 10222; see also *Ind. Mich. Power Co. v. United States*, 422 F.3d 1369, 1372 (Fed. Cir. 2005) (describing the Standard Contract).

¹⁵⁹ See *Ala. Power Co. v. U.S. Dep't of Energy*, 307 F.3d 1300, 1316 (11th Cir. 2002) (holding that "the Department of Energy is not authorized by law to spend NWF monies

utility companies continue to pay fees into the Nuclear Waste Fund while the government simultaneously doles out damages in the billions of dollars for its failure to accept nuclear waste on schedule.¹⁶⁰ Second, thus far utility companies have brought litigation only on a partial breach of contract theory because claiming total breach of contract would have the effect of discharging the DOE from fulfilling its statutory duties under the NWPA.¹⁶¹

While the utility companies may certainly continue their ongoing pursuit of monetary damages for partial breach of contract in the Court of Federal Claims—however much of a “legal fiction” these actions must rely on¹⁶²—these petitioners may also be able to pursue a claim for total breach of contract. Because the Standard Contract is intertwined with the NWPA, this claim is equivalent to arguing that the DOE and the NRC violated their statutory mandates under the NWPA by causing the licensing application to remain unreviewed. Although their contracts ensure the utility companies access to the courts, a judicial remedy under their contracts would release the government from its obligation to dispose of nuclear waste—and leave the utility companies stuck with it. Because this outcome is unlikely to satisfy any of the parties involved, the utility companies are not in the best position to seek redress for the current standstill of progress on Yucca Mountain.

2. States

Perhaps a better class of candidates to argue for relief is the states. No states have the unique status accorded to the utility companies as parties to the NWPA, but recent case law dictates that states may be “entitled to special solicitude” with regard to standing.¹⁶³ In *Massachusetts v. EPA*, the Supreme Court found that the EPA’s refusal to regulate greenhouse gas emissions resulted in a risk of concrete harm to the petitioner-state, specifically, the loss of coastline due to rising sea levels and global warming; that this harm was “widely

on settlement agreements aimed at compensating utilities for their on-site storage costs as a result of the Department’s massive breach”).

¹⁶⁰ See *Hearing on Budget Implications*, *supra* note 4, at 11–12 (statement of Michael F. Hertz, Deputy Assistant Att’y Gen., Civil Div., U.S. Dep’t of Justice) (stating that the government had paid damages of approximately two billion dollars as of July 2010 and providing the 2009 estimate of future liability at roughly thirteen billion dollars).

¹⁶¹ See, e.g., *Ind. Mich. Power Co.*, 422 F.3d at 1374 (“The NWPA itself, and the Standard Contract’s terms drafted pursuant to it, compelled Indiana Michigan to bring an action for partial, not total, breach. Had Indiana Michigan brought an action for total breach, DOE would have been discharged from further responsibility under the contract, a situation apparently not desired by appellant and foreclosed by statute.”).

¹⁶² See *S. Cal. Edison Co. v. United States*, 93 Fed. Cl. 337, 342 (2010) (recognizing that the courts “continue to operate under the legal fiction that there has only been a partial breach” despite the reality of the situation).

¹⁶³ *Massachusetts v. EPA*, 549 U.S. 497, 521 (2007) (*emphasis omitted*).

shared” did not defeat its validity.¹⁶⁴ The Court lightened the traceability requirement by accepting that the EPA’s inaction at least “contribute[d]” to the petitioner-state’s injuries.¹⁶⁵ Likewise, although action by the EPA would not fully prevent injury to Massachusetts, the Court found Massachusetts’ injuries sufficiently redressable because the risks to the petitioner-state would be reduced if the Court issued a favorable decision.¹⁶⁶

Despite vigorous dissent to the majority’s decision, the rationale underlying the opinion in *Massachusetts v. EPA* will likely assist states seeking to challenge the actions of the NRC. The majority of states have nuclear waste temporarily stored within their borders,¹⁶⁷ resulting in significant risks to the local population and environment.¹⁶⁸ This concrete injury is traceable to the government’s failure to provide a permanent repository and it falls within the zone of interests intended for protection by the NWPA.¹⁶⁹ A favorable decision would not necessarily provide complete redress for the injuries experienced by petitioner-states; however, based on the holding in *Massachusetts v. EPA*, the redressability requirement may be satisfied despite the absence of a perfect solution.¹⁷⁰ A decision ordering the NRC to continue reviewing the licensing application qualifies because it is a step toward lessening the risk to the petitioner-states posed by temporarily stored nuclear waste.

Such a decision is likely to have significant ramifications. Specifically, the NRC would have to continue its review of the licensing application unless Congress takes definitive action to amend or repeal the NWPA. Ad hoc pronouncements, budgetary cuts, and administrative agency stalling would no longer suffice to deter the pursuit of Yucca Mountain. Moreover, the threat of increased judicial involvement would likely ensure procedurally sound implementation of any subse-

¹⁶⁴ See *id.* at 521–23.

¹⁶⁵ See *id.* at 523–24.

¹⁶⁶ See *id.* at 525–26 (“The risk of catastrophic harm, though remote, is nevertheless real. That risk would be reduced to some extent if petitioners received the relief they seek.”).

¹⁶⁷ See *Nuclear Energy Student Zone: Facing Challenges*, *supra* note 1 (stating that nuclear waste is stored at 125 sites in thirty-nine states).

¹⁶⁸ See, e.g., Peter Applebome, *Indian Point and a License to Disagree*, N.Y. TIMES, Feb. 14, 2009, <http://www.nytimes.com/2009/02/15/nyregion/15towns.html> (describing concern over the idea that two nuclear reactors at Indian Point would keep operating through 2033 and 2035, in part because of “the continuing leak of radioactive water into the Hudson”); Nicholas K. Geranios, *Radioactive-Waste Leak at Hanford Worst in Years*, SEATTLE TIMES, Aug. 1, 2007, http://seattletimes.nwsourc.com/html/localnews/2003816157_webhanfordleak01.html (reporting an estimated fifty to one hundred gallons of leaked radioactive waste at the Hanford Nuclear Reservation in Washington state).

¹⁶⁹ See 42 U.S.C. § 10131(a)(7) (2006) (seeking to protect the “public health and safety and the environment” from radioactive waste and spent fuel).

¹⁷⁰ See *supra* notes 129, 163–66 and accompanying text.

quent decisions. Finally, validating the petitioner-states' challenge to the federal handling of the NWPA would almost certainly instigate new debate over energy policy and the status of radioactive waste management in the United States.

3. *Individual Residents*

The Court's apparent willingness to apply its standing doctrine flexibly in light of unusual circumstances—such as those in *Massachusetts v. EPA*—also offers hope for individual petitioners seeking to challenge the NRC's action. People living in the near vicinity of temporarily stored nuclear waste will likely want to challenge the decision to abandon almost thirty years of work spent developing Yucca Mountain as the nation's nuclear waste repository. Even though potential harm from stored nuclear waste is difficult to predict with any certainty, there is precedent that a person's injury is "actual or imminent" when he merely lives near a site designated for nuclear waste storage if insufficient safety standards are imposed.¹⁷¹ Such arguments have gained greater currency in the wake of the Japanese nuclear disaster. That this injury may be widely shared does not mitigate its legitimacy.

The traceability requirement is slightly more difficult to satisfy but should not be prohibitive. While individual petitioners are not members of the regulated community, they are intended beneficiaries and their injuries fall within the zone of interests the NWPA is designed to protect.¹⁷² The causal link between the harm incurred from temporarily stored nuclear waste and the actions of the federal government is clear. Utility companies continue storing spent fuel on site because the government has not opened a permanent repository and accepted transfer of the radioactive material. The intermediate step is the failure of the NRC to complete its review of the DOE's licensing application for Yucca Mountain pursuant to the NWPA. Without NRC review, Yucca Mountain cannot be constructed and, given the lack of a viable alternative, nuclear waste will stay put.

Even if the Court were to order the NRC to continue reviewing the licensing application, it is uncertain whether the agency would reach a decision favorable to the petitioners. Though this outcome

¹⁷¹ See *Nuclear Energy Inst., Inc. v. EPA*, 373 F.3d 1251, 1266, 1271–73 (D.C. Cir. 2004) (finding that the EPA's ten-thousand-year "compliance period" was insufficient pursuant to statute, and that the individual's injury was "actual or imminent," for he lives adjacent to the land where the Government plans to bury 70,000 metric tons of radioactive waste—a sufficient harm in and of itself").

¹⁷² In the findings section of the NWPA, Congress determined that nuclear waste and spent fuel were "major subjects of public concern," and that precautions must be taken to protect the "public health and safety and the environment for this or future generations." See 42 U.S.C. § 10131(a)(7). Accordingly, one of the purposes of the NWPA is to establish the responsibility of the federal government to dispose of radioactive waste. See *id.* § 10131(b)(2).

may satisfy standing requirements for petitioner-states, it is unlikely the Court will view it as sufficient for individual petitioners who do not share the state's quasi-sovereign interests. The redressability requirement is therefore problematic. One solution to this difficulty is to reframe the injury such that an order to the NRC would redress the relevant harm. This becomes possible if the injury is actually the harm experienced by petitioners because the NRC did not follow its mandate under the NWPA. This injury results from citizens' damaged expectation that their government will follow the law. However, the Court has traditionally refused to grant standing on the basis of such generalized grievances in favor of directing people to the political process. And here is where the conundrum arises: because the NRC is not directly responsive to the political process,¹⁷³ there is no recourse for the injured citizen if the Court prohibits individual petitioners from accessing the judiciary.

The petitioners here will suffer particularized substantive harm (the risks associated with temporarily stored nuclear waste) as a result of their generalized grievance (the failure of the NRC to follow its mandate under the NWPA). The Court cannot provide redress for the former harm without first curing the latter injury. To grant standing in this context does not require great divergence from current doctrine; there is precedent stating that a person with a procedural right to protect his substantive interests does not need to satisfy "all the normal standards for redressability and immediacy."¹⁷⁴ The only additional step is to recognize the petitioners' generalized grievance as a valid procedural injury that—accompanied by substantive harm—may be used to access the Court.

While this complicated route to the courthouse is a feasible means of seeking redress, it is not the best solution. Individual persons should be able to get standing to challenge the government's disregard of the NWPA because of the harm this action may inflict, but the states are in a considerably better position to attain effective

¹⁷³ See *supra* Part III.B.

¹⁷⁴ *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 572 n.7 (1992). Consider further how Justice Scalia's illustration of how "procedural rights" are distinct in his majority opinion in *Lujan*: "The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy. Thus, under our case law, one living adjacent to the site for proposed construction of a federally licensed dam has standing to challenge the licensing agency's failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the dam will not be completed for many years." *Id.* This example directly incorporates the view that a petitioner may offer his procedural injury for redress by the Court in order to cure the underlying substantive harm. The procedural right here flows from provisions of the Administrative Procedure Act, 5 U.S.C. § 702 (2006), and the NWPA, 42 U.S.C. § 10139(a)(1)(A).

relief. Because courts will by necessity need to reframe individual petitioners' injuries as procedural in nature, a favorable decision technically only speaks to the harm inflicted by the NRC's failure to follow its mandate. In the case of the petitioner-states, the precedent set by *Massachusetts v. EPA* opens the door for the risks posed by nuclear waste temporarily stored within state lines to qualify as the relevant injury. This distinction is critical. A favorable decision for a petitioner-state will redress the injury of temporarily stored nuclear waste, while the same result for a petitioner-individual can merely validate the person's right to hold the government accountable through the courts when the political process does not suffice. Only the former outcome is likely to have any discernible impact on nuclear waste management in this country.

CONCLUSION

The clock is ticking on the problem of nuclear waste disposal. The majority of nuclear power plants in this country have already filled their maximum storage space for radioactive waste and within ten years, nearly every plant will reach capacity.¹⁷⁵ The dangers of continuing on-site storage include exposing the public to tanks that leak radioactive material, providing visible targets for terrorist attacks, and, as occurred in Japan, opening the door for natural disasters to escalate into national devastation. It took over ten billion dollars and close to thirty years to near readiness to build Yucca Mountain; this country has neither the resources nor the time to start from scratch. The judiciary has a crucial role to play in ensuring the safe and permanent storage of nuclear waste.

¹⁷⁵ See Kirkham, *supra* note 3; see also *Status of Used Nuclear Fuel Storage*, *supra* note 8.

Erratum

Due to a production error in Volume 97 Issue 2, the titles of Figures 7– 9 on pages 288–90 were incorrectly printed. They should read the following:

FIGURE 7.

**EXPERIMENT 3: MEAN RATINGS OF SARA DAVIDSON'S
OVERALL RESPONSIBILITY IN THE DEATH OF THE BOY,
BY MORAL CHARACTER AND AWARENESS
(1 = not at all; 7 = very much).**

FIGURE 8.

**EXPERIMENT 3: EXTENT TO WHICH SARA DAVIDSON WAS
PERCEIVED TO HAVE CAUSED THE BOY'S DEATH
(1 = not at all; 7 = very much).**

FIGURE 9.

**EXPERIMENT 3: EXTENT TO WHICH SARA DAVIDSON WAS PERCEIVED
TO HAVE ACTED INTENTIONALLY TOWARD THE BOY'S DEATH
(1 = not at all; 7 = very much).**

We apologize for the error and any inconvenience or confusion this has caused.

Joe Christensen, Inc.

