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The Story of *Vermont Yankee*: A Cautionary Tale of Judicial Review and Nuclear Waste

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Gillian E. Metzger*

Tucked into Vermont's southeast corner, the small town of Vernon might seem an unlikely backdrop for one of the most important decisions interpreting the Administrative Procedure Act ("APA"). But in 1966 the Vermont Yankee Nuclear Power Corporation applied for a permit to start building a nuclear reactor along the banks of the Connecticut River in Vernon, and three years later applied for an operating license to run it. Thus were set in motion the agency proceedings that ultimately culminated, in 1978, in the Supreme Court's decision in *Vermont Yankee Nuclear Power Corporation v. Natural Resources Defense Council*.[1]

What follows here is the story of *Vermont Yankee*. To give a brief preview: The Atomic Energy Commission (AEC), in response to challenges raised against Vermont Yankee's operating license application, issued a rule addressing the environmental effects of the nuclear fuel cycle for use in assessing a reactor's environmental impact. The rule then came before the U.S. Court of Appeals for the District of Columbia Circuit, increasingly becoming the nation's central administrative law court and subjecting agency decisionmaking to assertive review. The D.C. Circuit concluded the AEC had failed to "thorough[ly] ventilat[e]" the issues of long-term storage and reprocessing of nuclear waste, and remanded the fuel cycle rule to the agency. In

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[1] 435 U.S. 519 (1978).

Vermont Yankee, the Supreme Court in turn reversed the D.C. Circuit, using the decision as an occasion to clip that court's wings and sternly rebuking it for suggesting the procedures utilized by the agency were deficient.

Vermont Yankee is a milestone in the development of judicial review in the modern regulatory state. In the late 1960s and early 1970s, the courts were faced with burgeoning federal regulation at a time when public confidence in agency expertise and impartiality was at low ebb. A debate reigned about what was the appropriate judicial response to this development. The main protagonists in this debate were two judges on the D.C. Circuit, Chief Judge David Bazelon and Judge Harold Leventhal. On many issues, the two were in accord; both accepted the need for enhanced judicial scrutiny of agency decisionmaking and for expansive readings of the APA's requirements for informal rulemaking. Where they disagreed was over whether the courts should impose procedural requirements on rulemaking beyond those listed in the APA or required by other statutes, agency regulations, or due process. Bazelon advocated such judicial procedural impositions, believing that courts were not competent to address the merits of the complex technological issues often involved, while Leventhal contended that courts should limit themselves to rigorous substantive scrutiny of agency decisionmaking.

Vermont Yankee stands as a rejection of Bazelon's proceduralist approach, with the Supreme Court ostensibly restricting judicial development of administrative procedure to the rarest of circumstances. The Court instructed federal judges in no uncertain terms that they should not embellish on the informal rulemaking procedures contained in the APA and codified at 5 U.S.C. § 553. Yet the lower courts continued to do exactly that, avoiding a direct confrontation with *Vermont Yankee* by rooting their procedural demands (however implausibly) in the text of § 553. In addition, even in *Vermont Yankee* itself, the Court affirmed the

importance of careful judicial scrutiny to ensure that agencies provide an adequate record to justify the substance of the rules they adopt. The pressure of such substantive judicial review of agency decisionmaking led agencies to undertake additional deviations from the APA's minimal procedural blueprint for informal rulemaking—in particular, dramatically expanding the record and explanatory basis of their decisions.

On the other hand, it would be wrong to view *Vermont Yankee* as simply a toothless tiger. The decision limited the arsenal that judges could call upon to ensure agency accountability, arguably with poor or at least mixed results. After *Vermont Yankee*, agencies had less reason to explore new procedural formats as a means of addressing accountability concerns in-house, while courts were encouraged to engage in close substantive review of agency decisions for which they were often ill-equipped. At a minimum, the need to base procedural requirements in the APA's text limited courts' ability to overtly assess the policy benefits of procedural innovations or take into account the changed landscape of federal regulation.

The one thing *Vermont Yankee* clearly did not do, however, was resolve the growing debate over nuclear power and the problem of nuclear waste. Nearly thirty years after *Vermont Yankee* the nation still lacks a means for long-term storage of high-level nuclear waste. Moreover, as Yogi Berra famously said, it's deja vu all over again, as a recent D.C. Circuit decision has put on hold government efforts to develop a long-term waste repository at Yucca Mountain, Nevada.[2]

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[2] *See Nuclear Energy Inst., Inc. v. EPA*, 373 F.3d 1251, 1266-73 (D.C. Cir. 2004), *rehearing and rehearing en banc denied* (Sept. 1, 2004).

I. *Vermont Yankee* at the AEC

With the Atomic Energy Act of 1954, the federal government embarked on a policy of fostering commercial uses of nuclear power.[3] Prior to this point, nuclear plants in the United States were government-owned and operated under the aegis of the AEC. But the 1954 Act instructed the AEC to "encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public."[4] Even with the impetus of the 1954 Act, it was only in the 1960s that significant numbers of commercial plants began to be built. By the late 1960s, however, a "great bandwagon market" for commercial nuclear power was underway, with utilities seeking permission to build new and larger nuclear power plants.[5]

Perhaps given the limited number of plants then in existence, for many years the AEC did not devote substantial attention to the question of how to deal with the wastes generated by nuclear power. The most noxious waste products generated by nuclear power plants are the highly radioactive and toxic elements contained in spent nuclear fuel, such as plutonium. Many of these elements not only are extremely harmful to humans, but in addition retain their toxicity

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[3] This discussion of issues surrounding nuclear waste and the federal government's response is drawn largely from the following sources: J. Samuel Walker, Containing the Atom: Nuclear Regulation in a Changing Environment, 1963-71 (1992); Joel Yellin, *High Technology and the Courts: Nuclear Power and the Need for Institutional Reform*, 94 Harv. L. Rev. 489 (1981); Charles H. Montange, *Federal Nuclear Waste Disposal Policy*, 27 Nat. Resources J. 309 (1987); American Physical Soc'y, Study Group on Nuclear Fuel Cycles and Waste Management, Report to the American Physical Society, 50 Mod. Rev. Physics 1 (1978); *Nuclear Energy Inst.,* 373 F.3d at 1258-62.

[4] Atomic Energy Act of 1954, Pub. L. No. 83-703, § 3d, 68 Stat. 919, 922, (codified at 42 U.S.C. § 2013(d)).

[5] Walker, *supra* note 3, at 18.

for very long periods, ranging from 600 to millions of years. Disposing of such waste thus requires either some form of long-term storage or reprocessing, through which plutonium and uranium are recovered from spent fuel. Each of these methods of disposal presents difficulties. Long-term storage requires identifying a site that is sufficiently geologically stable to prevent dissipation of the radioactive elements for the lengthy periods involved—and a community willing to have such a storage facility nearby. Reprocessing reduces the amount of high-level waste requiring disposal but creates substantial security concerns, because it becomes necessary to control access to the plutonium that reprocessing produces.

By the early 1970s, the problems involved in dealing with high-level waste were gaining public attention. Indeed, commercial use of nuclear power generally was becoming increasingly contentious, as public concerns grew about the health and safety risks posed by nuclear power plants.[6] Under the Atomic Energy Act and AEC regulations, licensing of nuclear reactors is a two-stage event; reactor operators first apply for a construction permit and then after the plant is built, apply for a license to operate it.[7] Any interested person affected by grant of a construction permit or operating license can request a hearing on the application and intervene as a party in the proceeding. Such license hearings are considered formal adjudications, and thus trigger the trial-

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[6] *See* Steven Ebbin & Raphael Kasper, *Citizen Groups and the Nuclear Power Controversy: Uses of Scientific and Technological Information* 10-21 (1974) (discussing growth of contested AEC license proceedings in the 1960s and early 1970s); Walker, *supra* note 3, at 387-422 (detailing changes in public views of nuclear power and effect of rise of environmentalism on the AEC); Richard Goldsmith, *Regulatory Reform and the Revival of Nuclear Power*, 20 Hofstra L. Rev. 159, 161-77 (1991) (describing increasing public skepticism of the AEC).

[7] *See Power Reactor Dev. Co. v. IUEW*, 367 U.S. 396 (1961); *see also* 10 C.F.R. part 50 (2004) (Domestic Licensing of Production and Utilization Facilities); Goldsmith, *supra* note 6, at 186-91 (describing the NRC's more recent development of a combined license option).

type procedures set out in the APA.[8] Initially, the statutory right to a hearing was rarely invoked, but as the number of licenses issued and public concerns about nuclear power increased, environmental and citizen groups started to seek intervention to oppose new plants. And these plant opponents began raising nuclear waste concerns as part of their arguments against the government licensing proposed facilities.

Their challenges on this score were buttressed by enactment of the National Environmental Policy Act of 1969 (NEPA), which required federal agencies to issue a detailed environmental impact statement on major federal actions affecting the quality of the environment.[9] NEPA's enactment created a substantial dilemma for the AEC. After some initial debate, the AEC's General Counsel's office came to the view that NEPA applied to the agency's licensing and rulemaking decisions. A harder problem was what to do about nuclear plants under construction, or already constructed but not yet licensed. Licensing proceedings on these plants would take place after NEPA's effective date of January 1, 1970. But particularly for plants authorized and constructed without attention to environmental issues, application of NEPA had a retroactive aspect, and might necessitate significant retrofitting or perhaps (in extreme cases) cancellation of planned facilities. At a minimum, application of NEPA would lead to substantial delays in plant licensing and construction, to allow for preparation of impact statements and hearings.[10]

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[8] *See* 5 U.S.C. §§ 556-557, 42 U.S.C. § 2239(a). However, such licensing hearings differ from formal adjudication under the APA in that they are presided over by three-member atomic safety and licensing boards, as authorized by the Atomic Energy Act. *See* 42 U.S.C. § 2241(a).

[9] Pub. L. No. 91-190, 83 Stat. 852, (codified at 42 U.S.C. § 4331, § 4332(2)(c)); Robert L. Rabin, *Federal Regulation in Historical Perspective*, 38 Stan. L. Rev. 1189, 1279-90 (1986).

[10] For a description of this debate, *see* Walker, *supra* note 3, at 363-86.

The AEC's response was to postpone NEPA's enforcement. Expressing concerns about the need for "an orderly transition . . . and to avoid unreasonable delays in the construction and operation of nuclear power plants urgently needed to meet the national requirements for electric power," the AEC prohibited consideration of environmental issues at hearings officially noticed before March 4, 1971. In addition, the agency stated it would delay assessment of environmental factors for plants granted a construction permit before NEPA became effective until the plant applied for an operating license.[11] This timing decision, as well as the AEC's reluctance to independently assess environmental effects of proposed plants other than by having staff promulgate impact statements, provoked great ire on the D.C. Circuit. In *Calvert Cliffs' Coordinating Committee v. AEC* , the D.C. Circuit castigated the AEC for a "crabbed interpretation of NEPA [that] makes a mockery of the Act," and characterized the agency's timing proposal as a "shocking" delay that "seems to reveal a rather thoroughgoing reluctance to meet the NEPA procedural obligations in the agency review process."[12] Under the 1971 *Calvert Cliffs*', the AEC was required to consider the environmental impact of all facilities for which license proceedings were still pending when NEPA became effective, as well as to assess promptly the environmental impact of facilities under construction to determine if construction changes were available that might lessen environmental harm caused by the facilities. Despite *Calvert Cliffs'* disruptive effects, the AEC decided not to seek further review, in part out of

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[11] *See Implementation of the National Environmental Policy Act of 1969*, 35 Fed. Reg. 18,469, 18,470 (Dec. 4, 1970).

[12] 449 F.2d 1109, 1117, 1119-20 (D.C. Cir. 1971).

concern to improve the agency's public image on environmental issues and in part because the potential for judicial or legislative reversal seemed slim.[13]

Calvert Cliffs' also led to the emergence of a more coordinated opposition to nuclear plant licensing. The attorney for the Calvert Cliffs' Coordinating Committee was Anthony Roisman, a partner at a new public interest law firm in Washington D.C.[14] Roisman worked closely with the National Resources Defense Council (NRDC), a national environmental law group founded the year before and funded by the Ford Foundation,[15] as well as other environmental law groups springing up at the same time. Roisman's work on *Calvert Cliffs'* got his name circulating as an attorney who would represent citizen groups opposing nuclear plants before the AEC; up to this point most such groups participated in AEC hearings without benefit of counsel.[16] In particular, Roisman subsequently represented the New England Coalition on Nuclear Pollution, a group started in 1971 by citizens and scientists from Vermont and western Massachusetts. Along with NRDC, the New England Coalition took a lead role in opposing award of Vermont Yankee's operating license.

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[13] *See* Walker, *supra* note 3, at 383-84.

[14] The firm, Berlin, Roisman and Kessler, was started by Edward Berlin and Gladys Kessler, in addition to Roisman, in 1969. Telephone Interview with Anthony Z. Roisman, Founding Partner, Berlin, Roisman, and Kessler (Nov. 23, 2004) [hereinafter Roisman Interview]. For a discussion of their decision to start a public interest law firm, *see* Edward Berlin, Anthony Z. Roisman, & Gladys Kessler, *Public Interest Law*, 38 Geo. Wash. L. Rev. 675 (1969).

[15] For a history of the origins of the NRDC, *see* Robert Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement* 140-43 (1993).

[16] Roisman Interview, *supra* note 14.

Only one environmental group had sought to intervene in the hearing the AEC held on Vermont Yankee's application for a construction permit in 1967. But, as a sign of the changing climate for nuclear power, seven such organizations intervened when Vermont Yankee subsequently applied for an operating license for the plant in 1969.[17] Vermont Yankee was one of the plants that would have been exempted from NEPA under the AEC's proposed policy, as the hearing on its operating license was noticed in February, 1971. As a result of *Calvert Cliffs*', however, NEPA now applied. Indeed, NEPA formed the basis for the intervenors' main challenge to award of Vermont Yankee's operating license: that the environmental effects associated with the "back end" of the nuclear fuel cycle—the transportation, reprocessing, and storage of spent fuel from a plant[18]—had to be considered in determining whether to award Vermont Yankee's license and included in the environmental impact statement on the reactor.

Unfortunately for the intervenors, the atomic safety and license board conducting the hearing on Vermont Yankee's operating license took a different view of the scope of NEPA's application, and refused to require the AEC staff to include fuel cycle environmental effects. The appeal board that reviewed the licensing board's decision agreed, stating there was "no way of ascertaining now which of the various reprocessing plants now in existence or to be constructed will from time to time receive some irradiated fuel elements from [the Vermont Yankee] plant,"

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[17] *See In re Vermont Yankee Nuclear Power Corp.*, 4 A.E.C. 776, 777 (Mar. 14, 1972); *In re Vermont Yankee Nuclear Power Corp.*, 4 A.E.C. 36, 37 (Dec. 8, 1967).

[18] The nuclear or uranium fuel cycle refers to the chain of activities associated with production and ultimate disposal of nuclear fuel. The "back end" activities are those that occur after the fuel is burnt in the reactor, the "front end" those that occur beforehand. For a light-water reactor such as Vermont Yankee's, front end activities include: mining and milling uranium ore; converting uranium oxide to uranium hexafluoride; enriching uranium; reconversion of uranium hexafluoride to uranium oxide; and fabricating nuclear fuel.

and new methods of reprocessing might be developed during the Vermont Yankee plant's projected forty-year life. As a result, the appeal board concluded that individual reactor licensing proceedings should address environmental issues connected to transportation of spent fuel and other waste from the plant, but not issues related to reprocessing, storage, and disposal of spent fuel; the latter should instead be addressed in reprocessing plant license proceedings. Rejecting the intervenors' other challenges, the appeal board affirmed the licensing board's decision to award Vermont Yankee a temporary operating license.[19]

The AEC's commissioners declined to grant further review. But in November 1972, shortly after the appeal board's decision in *Vermont Yankee*, the AEC proposed issuing a rule on the question of whether—and how—environmental effects of the nuclear fuel cycle should be considered in individual reactor proceedings. According to the AEC, a generic rule addressing the environmental effects of the fuel cycle was needed because of the frequency with which the fuel cycle issue was arising in individual license proceedings. Vigorous judicial enforcement of NEPA no doubt also spurred the agency to action. Prior to NEPA's enactment, the AEC's position had been that it was statutorily precluded from considering environmental concerns unrelated to radiation. In 1969, the First Circuit upheld the AEC's position in a case involving the Vermont Yankee reactor, rejecting New Hampshire's claim that the AEC should have considered the effect that discharge of boiling water from Vermont Yankee would have on the

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[19] *See In re Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station*), 4 A.E.C. 930, 933-34 (AEC, Atomic Safety & Licensing App. Bd., 1972); *In re Vermont Yankee Corp.*, 5 A.E.C. 297 (AEC, Atomic Safety & Licensing App. Bd., 1972); *see also* Ebbin & Kasper, *supra* note 6, at 89-121 (describing Vermont Yankee licensing proceedings).

Connecticut River.[20] But under NEPA, consideration of environmental effects became part of every federal agency's mandate, and the D.C. Circuit's *Calvert Cliffs'* decision made clear that court would vigorously enforce that mandate.

In its November 1972 notice of proposed rulemaking, the AEC sought comment on two regulatory alternatives. The first expressly followed the approach outlined in the appeal board's *Vermont Yankee* decision and excluded any consideration of environmental effects of the fuel cycle in individual reactor proceedings, other than those connected to transportation of fuel to and wastes from the plant. The second established preset numeric values for environmental effects associated with different stages of the fuel cycle that the AEC's regulatory staff would include in the environmental impact statement on light water nuclear reactors. These values were listed in what became the infamous Table S-3 of a lengthy AEC staff report, *Environmental Survey of the Nuclear Fuel Cycle*, that was made publicly available at the same time as the notice of proposed rulemaking and represented the primary database for the proposed rule. To compile Table S-3, the AEC's regulatory staff first calculated the annual fuel requirement for a model light water reactor with a 30-year life, and then normalized the land use, water use, fossil fuel use and effluent releases for each activity (other than transportation) involved in fabricating and disposing of this amount of fuel. To give an example: the estimate release of liquid uranium or uranium daughters associated with the model reactor's annual fuel requirement was 2.4 curies, with 2 curies released during uranium milling, .33 curies released during uranium hexafluoride production, and .02 curies released during both fuel enrichment and fuel fabrication.[21]

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[20] *See New Hampshire v. AEC*, 406 F.2d 170, 175 (1st Cir. 1969).

[21] *See* AEC, Environmental Survey of the Nuclear Fuel Cycle S-2 to S-18 & Table S-3A (November 1972).

The AEC billed the rulemaking an informal proceeding, and thus subject only to the requirements for informal rulemaking contained in § 553. Informal rulemaking was one of the APA's central innovations.[22] While providing a formal rulemaking procedure that embodied many of the procedural requirements of traditional agency adjudication, the APA additionally authorized a new, more informal and flexible approach to rulemaking. Known also as "notice and comment" rulemaking and codified at § 553, informal rulemaking was modeled more on legislation than adjudication and by its text was subject to notably few constraints.[23] According to the APA, agencies have to provide a "[g]eneral notice" that, in addition to giving logistical information and identifying the governing legal authority for the proposed rulemaking, need only include "either the terms or substance of the proposed rule or a description of the subjects and issues involved."[24] Although agencies must receive comments, they can choose whether to hold an oral hearing or limit participation to written form. And in promulgating their final rules agencies only have to "incorporate in the rules adopted a concise general statement of their basis and purpose."[25]

Even though not required to do so by § 553, the AEC opted to hold an oral hearing on the fuel cycle rule at which interested persons could submit oral or written testimony. The

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[22] *See* Kenneth Culp Davis, *Administrative Law Treatise* § 6.15, at 283 (1st ed. Supp. 1970) (terming informal rulemaking " one of the greatest inventions of modern government"); George P. Shepherd, *Fierce Compromise: The Administrative Procedure Act Emerges from New Deal Politics*, 90 Nw. U. L. Rev. 1557, 1650-51 (1996).

[23] *See* Rabin, *supra* note 9, at 264-66; Martin Shapiro, *APA: Past, Present, Future*, 72 Va. L. Rev. 447, 452-54 (1986).

[24] *See* 5 U.S.C. § 553(b).

[25] *See id.* § 553(c).

Commission created a three-member hearing board to preside over the hearing, and authorized it to question witnesses on their testimony. It further provided that the rulemaking record would stay open for 30 days after the hearing for supplemental written comments, thereby providing an opportunity to respond to testimony and issues that arose at the hearing.[26] Critically, however, the Commission decided not to allow discovery or cross-examination by participants at the hearing, nor were parties allowed to propose questions for the hearing board to ask.[27] This represented somewhat of a deviation from the AEC's recent practice; in two other major rulemakings initiated in 1971—one on emergency core cooling systems for reactors, the other on whether reactors should be required to keep the radioactivity in effluents as low as practicable—the AEC had allowed fuller use of adversarial procedures, including cross-examination. One result, however, was that these earlier rulemakings were very lengthy and resource-intensive proceedings; the cooling systems rulemaking, for example, involved more than 100 days of hearings.[28] That experience had surely soured the agency on the idea of using adjudicatory proceedings for its rulemakings.

On the other hand, greater adversarial procedures would be available if issues involving the fuel cycle's environmental effects were addressed in individual reactor hearings, as these

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[26] *See Environmental Effects of the Uranium Fuel Cycle*, 38 Fed. Reg. 49, 49-50 (1973).

[27] *See Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1976) (Nos. 76-419, 76-528) app. at 659-60, 950 [hereinafter *Vermont Yankee* Appendix].

[28] *See* Michael A. Bauer, *The Development of Rulemaking Within the Atomic Energy Commission: The Nuclear Regulatory Commission's Valuable Legacy*, 27 Admin. L. Rev. 165, 170-73 (1975); Goldsmith, *supra* note 6, at 171-77; *see generally* Note, *The Use of Generic Rulemaking to Resolve Environmental Issues in Nuclear Plant Licensing*, 61 Va. L. Rev. 869 (1975).

hearings are subject to the formal adjudication requirements of the APA.[29] This difference led two groups, the Consolidated National Intervenors (CNI) and Union of Concerned Scientists (UCS), to challenge the rulemaking procedures. CNI was an umbrella group that included numerous environmental and citizen organizations. Along with UCS, CNI was represented at the fuel cycle rulemaking by Roisman. CNI/UCS contended that in order for the fuel cycle rule to be legally valid, the rulemaking had to employ the same full adjudicatory procedures used to address safety and environmental issues in individual reactor hearings, and more particularly had to allow discovery and cross-examination. Although CNI/UCS repeatedly requested a hearing on the fuel cycle's environmental effects where rights of cross-examination and discovery would be provided, for the most part these groups did not identify specific testimony at the hearing that required further exploration.[30] Instead, motivating CNI/UCS' demand for cross-examination and discovery was their belief, derived from their experience with the recent cooling systems rulemaking, that only through these means could they uncover potential concerns raised by second-level staff which were not included in the *Environmental Survey* or in the testimony of top AEC officials.[31]

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[29] *See* 5 U.S.C. §§ 554, 556-557.

[30] *Vermont Yankee* Appendix, *supra* note 27, at 837, 842-45, 933. The closest they came to such an identification was Roisman's remarks in passing on the need for further clarification regarding AEC assurances that nuclear wastes could be safely stored permanently. *Id*. at 837. This lack of specification led industry representatives to argue, both at the rulemaking and before the D.C. Circuit, that CNI/UCS had waived their request for cross-examination, a charge the D.C. Circuit rejected. *See id*. at 983-84; *NRDC v. NRC*, 547 F.2d 633, 643 n.25 (D.C. Cir. 1976).

[31] *See Vermont Yankee* Appendix, *supra* note 27, at 946-49; Roisman Interview, *supra* note 14. For a description of cooling systems rulemaking, *see* Ebbin & Kasper, *supra* note 6, at 122-38.

A two-day hearing on the fuel cycle rule was held in February 1973.[32] Presiding over the hearing was a three-member hearing board consisting of Max Paglin, Dr. Martin Steindler, and Dr. John Geyer. Two of these, Steindler and Geyer, were scientists with expertise on the nuclear fuel cycle and radioactive waste management; Steindler, for example, subsequently served on advisory committees on nuclear wastes for both the National Academy of Science and the Nuclear Regulatory Commission (NRC). Steindler, who worked at the AEC's Argonne National Laboratory, had served as an AEC consultant in the past, while Geyer, located at John Hopkins, had sat on numerous AEC atomic safety and licensing boards.[33] Paglin, in turn, was an experienced administrative lawyer—a former General Counsel and Executive Director of the Federal Communications Commission—who served as a permanent member and chairman of atomic safety and licensing boards for the AEC and NRC from 1972-75.[34] A broad range of organizations and interests testified at the hearing, including representatives of the AEC, the Environmental Protection Agency (EPA), state governments, environmental and citizen groups, and the nuclear power industry. The hearing generated a lengthy record; testimony and selections of the written comments comprise over five hundred pages of the appendix submitted to the Supreme Court.[35] At times, the hearing board engaged in active questioning, in particular asking

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[32] A preliminary hearing to go over logistical details of the hearing was held on January 17, 1973. *Vermont Yankee* Appendix, *supra* note 27, at 655-99.

[33] *See* John C. Geyer, *ASCE Honorary Member, Dies at 89*, Civ. Engineering, Oct. 1985, at 72-73; *Who's Who in America* 4985 (58th ed. 2004) (biography of Martin Steindler); Comm. on Mixed Wastes, Nat'l Research Council, *The State of Development of Waste Forms for Mixed Wastes* 125-26 (1999) (same).

[34] *See The Communications Act: A Legislative History of the Major Amendments, 1934-1996* xxiii (Max D. Paglin ed., 1999).

[35] *Vermont Yankee* Appendix, *supra* note 27, at 647-1186.

the AEC official in charge of producing the *Environmental Survey*, S. H. Smiley, detailed questions about how the AEC's regulatory staff derived the values listed in Table S-3.

From the perspective of the subsequent judicial decisions, the most important testimony at the hearing was that of Dr. Frank Pittman, director of the AEC's waste management and transportation division. As originally issued, *Environmental Survey* did not include discussion of techniques for disposing of high-level wastes, and thus Pittman's testimony constituted the main support for the fact that Table S-3 assigned no environmental effects to waste storage and disposal other than the permanent commitment of land for a storage facility.[36] Indeed, his testimony provided the most detailed statement yet issued of the AEC's plans for dealing with such wastes. As outlined by Dr. Pittman, the AEC's assumption, in line with federal policy at the time, was that spent nuclear fuel from reactors would be reprocessed. Its plan was to construct a surface facility for storing high-level waste generated by reprocessing until a permanent geologic waste disposal site could be developed. Pittman provided schematic drawings of what the surface facility would look like and described how wastes would enter the facility and be stored.

Even so, Dr. Pittman offered few specifics regarding key aspects of the facilities. For example, he provided little explanation of how a failure of the cooling system in the surface facility would be prevented or rectified, other than to claim that it would take over a week for the cooling water to boil away, allowing any of "[v]arious corrective actions" to be taken. More notably, he provided few details about the AEC's plans for a permanent facility, other than stating that the Commission expected to develop a site containing salt-beds and describing a plan for a pilot facility once a site was identified. Nonetheless, Pittman was confident that the safety

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[36] *See Environmental Survey*, *supra* note 21, at S-17 to S-19 (Table S-3A).

and environmental impact of the proposed facilities was minimal. In his words, concerns raised regarding management of nuclear wastes were a "bugaboo" that "cannot logically be used as a rationale for delays in the progress of an essential technology." He argued that the AEC's plan assured "commercial high-level waste will be managed safely," characterizing the possibility of a meltdown at the surface facility as "incredible," and concluding the probability that the AEC would be able to develop an acceptable long-term bedded-salt facility was "very high." Indeed, the presumption that wastes could be permanently stored without any release of radioactivity was incorporated into Table S-3, which contained no entry for the environmental impact of such releases.[37]

Although the hearing board asked Dr. Pittman some questions regarding operation of and need for the surface facility, they did not seek further details on the permanent facility.[38] Greater concerns with Pittman's testimony and the problems of waste storage were raised by CNI/UCS. Anthony Roisman, who began his testimony immediately after the board finished questioning Dr. Pittman, stated "we are not satisfied with Mr. Pittman's well intentioned, but, we think, not at all well explained position with regard to the ability to handle nuclear waste for thousands of years. He has . . . referred to it as a program of perpetual management. . . . I think the public deserves

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[37] *See* Statement of Dr. Frank Pittman, Director of Waste Management and Transportation, AEC, *reprinted in Vermont Yankee* Appendix, *supra* note 27, at 777-78, 782-83, 791; *see also Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 91-94 (1983) (discussing the incorporation of this zero-release assumption in Table S-3); *Environmental Survey*, supra note 21, at S-19 (Table S-3A).

[38] *Vermont Yankee* Appendix, *supra* note 27, at 830-35. Dr. Pittman's initial testimony was in the first morning session of the hearing, but the board postponed its questioning of him until the afternoon. *See id*. 801, 827, 829-30. This delay may explain why the D.C. Circuit erroneously stated that the hearing board had not subjected Dr. Pittman to any questioning. *See infra* note 91.

the right to ask the question, What does that mean?"[39] Roisman additionally noted prior problems the AEC had encountered with waste disposal, as did a subsequent CNI/UCS witness, Dr. Henry Kendall of MIT. Kendall also testified to security risk of diversion associated with transportation of highly enriched uranium and plutonium.[40]

As instructed by the Commission, the hearing board produced a report identifying the issues raised by the hearing.[41] One main issue identified by the board was CNI/UCS' procedural challenge. According to CNI/UCS, existing case law supported their claim for an adjudicatory proceeding providing rights of cross-examination and discovery. At the time of the fuel cycle hearing in February 1973, this was a debatable proposition.[42] In a 1966 decision, *American Airlines v. Civil Aeronautics Board*, the en banc D.C. Circuit had noted that procedures in addition to those set out in § 553 at times might be necessary to ensure a fair hearing. But this language was dictum as the court refused to require additional procedures in that case, emphasizing that the Civil Aeronautics Board "did not limit itself to minimum procedures" in issuing the cargo service rule there at issue, and in particular had provided opportunity for oral

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[39] *Vermont Yankee* Appendix, *supra* note 27, at 837–38.

[40] *See id*. at 843, 888–97, 904-05. UCS elaborated on these criticisms in supplemental comments submitted after the oral hearing was complete, describing the discussion of waste storage in the *Environmental Survey* (amended to include Dr. Pittman's testimony) as "replete with bland reassurances that problems can be solved even though the full extent and seriousness of these problems are not presented and explored." *Id*., at 1069, 1081-98.

[41] *See Environmental Effects of the Uranium Fuel Cycle*, 6 A.E.C. 539, 541 (July 6, 1973) [hereinafter Hearing Board Report].

[42] For a detailed discussions of the relevant D.C. Circuit precedent, *see* Antonin Scalia, *Vermont Yankee: The APA, The D.C. Circuit, and the Supreme Court*, 1978 Sup. Ct. Rev. 345, 348-52; Stephen F. Williams, *"Hybrid Rulemaking" under the Administrative Procedure Act: A Legal and Empirical Analysis*, 42 U. Chi. L. Rev. 401, 425-36 (1974).

argument.[43] More importantly, *American Airlines* upheld an agency's power to issue rules without providing full adjudicatory procedures, even if the issues addressed by the rules would otherwise be dealt with in a hearing where such procedures would apply.[44] The D.C. Circuit subsequently required use of procedures beyond those required by § 553 in two 1973 cases involving informal rulemaking, *Mobil Oil Corp. v. FPC*[45] and *International Harvester Co. v. Ruckelhaus*.[46] *International Harvester* in particular had held that at least some limited right of cross-examination might be needed to ensure fair ventilation of the issues.[47] The *International Harvester* court also expressed approval for the technique of having a hearing officer screen and ask questions submitted in advance by participants,[48] but the AEC had not employed that procedure in the fuel cycle rulemaking. Neither *Mobil Oil* or *International Harvester*, however,

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[43] 359 F.2d 624, 632-33 (D.C. Cir. 1966) (en banc), *cert. denied*, 385 U.S. 843 (1966); *see also Walter Holm & Co. v. Hardin*, 449 F.2d 1009, 1016 (D.C. Cir. 1971) (invoking *American Airlines* and statutory requirement of notice and hearing to support conclusion that fairness required opportunity for cross-examination on the crucial issues involved in tomato marketing regulation); *Marine Space Enclosures, Inc. v. FMC*, 420 F.2d 577, 589 & n.36 (D.C. Cir. 1969) (also suggesting in dictum that in some cases "brief and oral argument" might not be sufficient to air certain issues).

[44] *American Airlines*, 359 F.2d at 628-32.

[45] 483 F.2d 1238, 1251-54, 1260 (D.C. Cir. 1973) (requiring "some sort of adversary, adjudicative-type procedures" and describing APA's provisions for informal and formal rulemaking as creating a spectrum of possible procedures rather than either-or procedural requirements).

[46] 478 F.2d 615, 630-31 (D.C. Cir. 1973). Similarly, in a January 1974 decision, *O' Donnell v. Shaffer*, the D.C. Circuit upheld a rule promulgated using § 553 procedures but stated " [t]his Court has long recognized that basic considerations of fairness may dictate procedural requirements not specified by Congress. Oral submissions . . .and cross-examination may be necessary if critical issues cannot otherwise be resolved." 491 F.2d 59, 62 (D.C. Cir. 1974).

[47] *Int'l Harvester,* 478 F.2d at 649.

[48] *Id*. at 631.

mandated additional procedures in every informal rulemaking, and the AEC had already gone beyond the requirements of § 553 in formulating the fuel cycle rule. Moreover, both decisions were potentially distinguishable, as the D.C. Circuit had emphasized provisions of the underlying organic statutes in mandating additional procedures.[49]

Thus, by the time the AEC addressed CNI/UCS' procedural complaint in April 1974, the D.C. Circuit had displayed its willingness to mandate rulemaking procedures beyond those required by § 553, and in particular its support for giving participants some opportunity to participate in questioning. On the other hand, agency counsel had a basis for advising the AEC that precedent did not demand procedures beyond those the AEC had provided, and accepting CNI/UCS' procedural challenge at that point would have required reopening the rulemaking, with substantial potential for delay. Perhaps not surprisingly, therefore, the Commission rejected CNI/UCS' argument. Concluding that the procedures used were "more than adequate," it emphasized that no proffered evidence was excluded and that CNI/UCS did not "make an offer of proof—or even remotely suggest—what substantive matters it would develop under different

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[49] *See id.* at 629-31, 648-49 (discussing statutory requirement of "public hearing" on applications for suspension of auto emission standards and justifying additional procedures on the ground that "[t]he procedures followed in this case . . . have resulted in a record that leaves this court uncertain, at a minimum, whether the essentials of the intention of Congress [in authorizing suspensions] were achieved."); *Mobil Oil*, 483 F.2d at 1258-59 (emphasizing statutory requirement of substantial evidence review, which it read as entailing that "the proceedings must provide some mechanism for introduce adverse evidence and criticize evidence introduced by others"). *Mobil Oil* is further distinguishable by the fact that the court expressed doubt that the Federal Power Commission had even met the notice requirements of § 553. *See id*. at 1251 n.39.

procedures."[50] The Commission also underscored that the regulatory staff had made various drafts and notes used in preparing the *Environmental Survey* publicly available.

The remaining issues identified by the hearing board were more substantive. In particular, the *Environmental Survey* was challenged as inadequate, due to its failure to include analysis of the environmental effects associated with waste reprocessing and storage.[51] As the CNI/UCS witnesses noted, at the time of the hearing the AEC had already encountered difficulties in dealing with nuclear wastes. Other countries, in particular France, had active reprocessing plants. But in the United States only one commercial reprocessing plant had been built, and that plant shut down in 1972—six years after it began operations—because of technical and financial problems. In 1970, the AEC announced plans to develop a long-term geologic storage repository in salt-beds in Lyons, Kansas. However, by 1972 the agency was forced to acknowledge that the site was unsuitable for a long-term facility, due to abandoned gas and oil drill holes in the area and a neighboring mine that used large amounts of water to remove salt, all of which raised the danger that the facility might be breached, allowing radioactive wastes to escape.[52] In addition, sizeable leaks of stored high-level waste had occurred at the AEC's facility in Hanford, Washington.[53]

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[50] *See Environmental Effects of the Uranium Fuel Cycle*, 39 Fed. Reg. 14,188, 14,189 (Apr. 22, 1974).

[51] *See* Hearing Board Report, *supra* note 41, at 542–543. Additional issues involved, *inter alia*, the possibility of sabotage, the treatment of pending license cases, the feasibility of the proposed alternatives, and access to the background materials and calculations used by the AEC's regulatory staff in generating the Survey. *See id.* at 544–45.

[52] *See* Walker, *supra* note 3, at 24-25; Philip M. Boffey, *Radioactive Waste Site Search Gets Into Deep Water*, 190 Science 361 (1975). By mid-1975, a subsequent effort to develop a long-term storage facility in salt-beds in New Mexico had also proved unsuccessful. *See id.*

[53] *See* Yellin, *supra* note 3, at 535-36.

Given these problems and the lack of detail in Dr. Pittman's testimony, the D. C. Circuit's description of his remarks "as vague, but glowing" seems not only fair but overly kind.[54] Whether agency counsel could have predicted that the D.C. Circuit would find Pittman's testimony so inadequate as to necessitate a remand is a closer call, as the D.C. Circuit had only recently begun to tighten scrutiny of agency rulemaking.[55] On the other hand, it did not require prescience to predict that the D.C. Circuit might look askance at agency acceptance of Dr. Pittman's conclusory assurances. Arguably, therefore, agency counsel should have advised the Commission to supplement the record on waste storage or to heed the D.C. Circuit's admonition in *International Harvester* and engage in "candid discussion" of weaknesses in Pittman's testimony.[56] Perhaps indeed the AEC's General Counsel did suggest such measures, but if so the Commissioners ignored counsel's advice. Instead, both the hearing board and the Commission viewed Pittman's testimony in highly positive terms. The hearing board described Dr. Pittman as having offered "an extensive presentation" on waste disposal options and their environmental effects, and subjected him to minimal questioning.[57] The Commission agreed, stating that

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[54] *See NRDC v. NRC*, 547 F.2d 633, 648 (D.C. Cir. 1978); *infra* text accompanying notes 139-44 (describing process leading to development of Yucca Mountain site). For similar assessments of Dr. Pittman's testimony, *see* Scalia, *supra* note 42, at 353; Richard B. Stewart, Vermont Yankee *and the Evolution of Administrative Procedure*, 91 Harv. L. Rev. 1805, 1809-10 (1978). For a more favorable view, *see* Stephen Breyer, Vermont Yankee *and the Courts' Role in the Nuclear Energy Controversy*, 91 Harv. L. Rev. 1833, 1841-42 (1978).

[55] *See infra* Part II (discussing the D.C. Circuit's emerging administrative law jurisprudence).

[56] 478 F.2d 615, 632-33 (D.C. Cir. 1973); *see also Portland Cement v. Ruckelshaus*, 486 F.2d 375, 393-94 (D.C. Cir. 1973) (faulting the EPA for, on prior remand, not responding to comments criticizing data the agency had used to formulate emission standards under the Clean Air Act and instead simply including the comments in the rulemaking record on the standards).

[57] *See* Hearing Board Report, *supra* note 41, at 543; *Vermont Yankee* Appendix, *supra* note 27, at 830-351

"considerable information was presented at the hearing on high level waste storage." It dismissed concerns that estimates of the storage facilities' effects were unreliable because the facilities did not yet exist on the grounds that the proposed facilities would use already existing technology.[58] It also found that the now-revised *Environmental Survey*, amended in response to the hearing to among other things include Dr. Pittman's written testimony on waste storage, provided an adequate basis for the values listed in the Survey's Table S-3.

In its final fuel cycle rule, the AEC opted for the second proposed alternative, inclusion of predetermined values in the environmental impact statements issued for individual reactors. The agency thus ultimately adopted an approach to the fuel cycle's environmental effects that differed from the approach outlined by the appeal board in the *Vermont Yankee* proceeding, and it stated that the *Vermont Yankee* decision would have "no further precedential significance." However, the AEC also decided not to apply the new rule to previously issued environmental impact statements, on the ground that the fuel cycle's environmental effects were "relatively insignificant." As a result, Vermont Yankee was allowed to retain its operating license, which had become permanent in February 1973, without further proceedings.[59]

Similarly exempted from the new rule was the grant of a construction permit to Consumers Power Company to build two nuclear reactors in Midland, Michigan. The proposed reactors were across a river from a major Dow Chemical facility, which had agreed to purchase steam generated by the plants. Indeed, proximity to the Dow facility was the reason why

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[58] *See Environmental Effects of the Uranium Fuel Cycle*, *supra* note 50, at 14,189.

[59] *See id*, at 14,188, 14,190-91; *see also In re Vermont Yankee Nuclear Power Corp.*, 6 A.E.C. 358, 358 (AEC, Atomic Safety & Licen. App. Bd., 1973) (upholding award of Vermont Yankee's permanent operating license).

Consumers chose Midland as the site for the reactors. Most Midland residents strongly favored the project; Dow was Midland's biggest employer and supported a wide range of cultural and charitable activities in the city.[60] The few who disagreed faced significant community ostracism. One was Mary Sinclair, who organized the Saginaw Valley Nuclear Study Group to oppose the reactors. Her mailbox was bombed, her children were harassed in school, and she was forced out of her church. But Sinclair gained one key ally, the eldest daughter of Dow Chemical's founder, who provided the funds Saginaw needed to hire Myron Cherry. Cherry was a Chicago lawyer with an abrasive style who, like Roisman, was gaining a reputation as a fierce opponent of nuclear power plants. Cherry had played a lead role in the AEC core cooling systems rulemaking, and also participated in the fuel cycle rulemaking. Represented by Cherry, Saginaw and several other groups intervened in the Consumers Power proceeding, as did a group of residents from nearby Mapleton, Michigan, led by a local businessman named Nelson Aeschliman.[61]

Cherry's strategy was to strongly contest license applications and draw out licensing proceedings as long as possible, thereby inflicting costly delays on plant operators.[62] He pursued this strategy to the hilt in the Consumers Power proceeding: Consumers filed its construction permit application in January 1969, and the proceeding was not resolved until May 1973. Part of

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[60] Public support was also fueled by a rumor that failure to construct the reactors would cause Dow to leave Midland. *See* Ebbin & Kasper, *supra* note 6, at 21-22.

[61] *See* Ron Winslow, *Woman Helps Sink Nuclear Power Plant That Cost $4 Billion — Mary Sinclair's 15-Year Drive In Midland, Mich., Ends in Ostracism — and Victory*, Wall St. J., July 18, 1984, at 1; Jerry M. Flint, *Midland, Mich., Wants Nuclear Plant*, N.Y.Times, Dec., 3, 1971, at 24.

[62] *See* John R. Emshwiller, *Nuclear Nemesis: Using the Law's Delay, Myron Cherry Attacks Atomic-Power Projects*, Wall. St. J., Mar. 10, 1978, at A1, 35.

the reason for the length of the proceeding was, again, *Calvert Cliffs*'. That decision was issued on the last day of the hearing on Consumers Power's construction permit, July 23, 1971, necessitating holding a supplemental fourteen day hearing in May-June 1972 devoted solely to environmental issues.[63] As a whole, the Consumers Power proceeding was extremely contentious, with Saginaw attacking the chair of the licensing board as biased because of comments he made in a law review article.[64] In turn, the AEC castigated Saginaw for failing to provide evidence to support many of its environmental challenges, including Saginaw's claim that alternatives such as energy conservation made the proposed reactor unnecessary.[65] In the end, the AEC rejected the intervenors' challenges and awarded Consumers Power its construction permit, with the appeal board again reaffirming its refusal to consider most environmental aspects of the nuclear fuel cycle in an individual reactor licensing.[66]

II. *Vermont Yankee* at the D.C. Circuit

The next step in all three proceedings—the individual license proceedings for the Vermont Yankee and Consumers Power reactors and the fuel cycle rulemaking—was review

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[63] *See In re Consumers Power Company (Midland Plant, Unit 1 and 2)*, 5 A.E.C. 214, 216 (AEC, Atomic Safety & Licensing Bd., 1972).

[64] The law review article in question was Arthur W. Murphy, *The National Environmental Policy Act and the Licensing Process: Environmentalist Magna Carta or Agency Coup de Grace?*, 72 Colum. L. Rev. 963 (1972).

[65] Indeed, Saginaw failed to participate in the hearing on Midland's environmental effects. Cherry explained this absence as stemming from his need to attend the ongoing cooling systems rulemaking, and the conflict in hearing dates was another bone of contention in the Midland proceedings. *See In re Consumers Power Co. (Midland Plant, Units 1 and 2)*, 6 A.E.C. 331, 332-33, 352-53 (AEC, Atomic Safety & Licensing App. Bd., May 18, 1973)

[66] *See id.* For a detailed description of the Midland proceeding, *see* Ebbin & Kasper, *supra* note 6, at 59-89.

before the D.C. Circuit. The D.C. Circuit at the time was something of a first among equals, composed of legal luminaries such as David Bazelon, Harold Leventhal, Skelly Wright, and Carl McGowan, to name just a few; Chief Justice Warren Burger had also been a member before his elevation to the Supreme Court.[67] Bazelon, the Circuit's longtime Chief Judge, was renowned for his commitment to using the law as a tool of social change, writing influential decisions that expanded the rights of criminal defendants and developed the insanity defense. In the words of one of his colleagues, "[a] restrained judge he was not."[68] Judge Bazelon was also famous for the lunches he organized in a backroom of Milton Kronheim's liquor warehouse, where liberals from across Washington would gather.[69]

The D.C. Circuit's stature as the nation's administrative law court developed in the late 1960s and 1970s. Congress chose to make the D.C. Circuit the center for challenges to administrative regulations issued under new federal environmental and health statutes, such as the Clean Air Act (CAA) and the Occupational Safety and Health Act. In addition, sparked by the Nixon administration's opposition to its liberal criminal and poverty law decisions, Congress ended the D.C. Circuit's appellate jurisdiction over local D.C. courts, giving it more time to focus on administrative cases.[70] As its administrative docket grew, the D.C. Circuit began to

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[67] For general discussions of the D.C. Circuit during this period and its role in developing judicial review of agency action, *see* Christopher P. Banks, *Judicial Politics in the D.C. Circuit Court* 1-50 (1999); Jeffrey Brandon Morris, *Calmly to Poise the Scales of Justice: A History of the Courts of the District of Columbia Circuit* 194-235, 279-315 (2001).

[68] Patricia M. Wald, *Ghosts of Judges Past*, 62 Geo. Wash. L. Rev. 675, 681 (1993).

[69] *See* Fred Barbash, *Judge Bazelon's Network: The Salon of the Ultimate Liberal*, Wash. Post, Mar. 1, 1981, at A2; Abner J. Mikva, *The Real Judge Bazelon*, 82 Geo. L. J. 1 (1993); Patricia M. Wald, *Lessons Amid Losses*, Am. Lawyer, Mar. 9, 1993 at 9.

[70] The discussion in this and subsequent paragraphs on developments in administrative law and the debate over judicial review on the D.C. Circuit draws heavily on the following

develop new administrative law doctrines and expand the scope of judicial review, particularly of informal rulemaking.

Only in the late 1960s and early 1970s did use of informal rulemaking become widespread, in part because many of the new statutes mandated that agencies issue standards and generally applicable regulations. This move to informal rulemaking was generally hailed as a salutary development. It allowed agencies to develop policy in a more coherent and consistent manner that provided greater opportunities for public comment than individualized adjudications, while avoiding the heavy resource burdens and delays that accompanied formal rulemaking.[71] Yet the growth in informal rulemaking also raised concerns about loss of procedural protections and agency accountability. The substantial economic and social impact of the new regulations meant that arbitrary agency decisionmaking could exert significant harm, while the complex factual questions and issues of scientific and technical uncertainty underlying the regulations provided ample room for debate about the correctness of agency determinations.[72] The fuel cycle rulemaking was a good case in point: Determining the values to include in Table S-3 required the Commission to make factual estimates about the environmental impact of waste

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sources: Rabin, *supra* note 9, at 1278-1315; Scalia, *supra* note 42; Richard B. Stewart, *The Development of Administrative and Quasi-Constitutional Law in Judicial Review of Environmental Decisionmaking: Lessons from the Clean Air Act*, 62 Iowa L. Rev. 713, 725-40 (1976); Peter L. Strauss, *Changing Times: The APA at Fifty*, 63 U. Chi. L. Rev. 1389 (1996); and *The Contribution of the D.C. Circuit to Administrative Law*, 40 Admin. L. Rev. 507 (1988) (remarks by Chief Judge Wald).

[71] *See, e.g., American Airlines*, 359 F.2d 624, 630-31 (D.C. Cir. 1966) (en banc); Kenneth Culp Davis, *Administrative Law in the Seventies* § 6:04-1, at 217-19 (1976); Henry J. Friendly, *Some Kind of Hearing*, 123 U. Pa. L. Rev. 1267, 1305-15 (1975); *see generally* Robert W. Hamilton, *Procedures for the Adoption of Rules of General Applicability: The Need for Innovation in Administrative Rulemaking*, 60 Cal. L. Rev. 1276 (1972).

[72] *See* Paul Verkuil, *Judicial Review of Informal Rulemaking*, 60 Va. L. Rev. 185, 205-214 (1974).

storage, notwithstanding the uncertainty regarding how wastes ultimately would be stored. The Commission's erring too much towards either conservatism or laxity in its estimates could have serious effects on society and commercial nuclear power.

Moreover, at the same time as agencies were engaging in greater use of informal rulemaking and regulating in new areas, suspicion was growing about willingness of agencies to take public interests seriously. Agencies increasingly were seen not as the embodiment of impartial expertise, but as entities that had become captured by the industries they regulated.[73] The AEC was a particular target for such concerns about agency capture. The Atomic Energy Act had given the agency the incompatible responsibilities of both regulating and promoting the commercial nuclear industry. Concern that the AEC had sacrificed public health and safety in order to foster commercial uses of nuclear power led Congress in 1974 to abolish the AEC. Its regulatory duties were transferred to an independent agency, the NRC, while its research and promotional activities were first assigned to the Energy Research and Development Administration and subsequently given over to the Department of Energy.[74]

The D.C. Circuit's response to these concerns was to subject agency decisionmaking to more intensive scrutiny. Enhanced judicial review was seen as the means by which agency accountability would be preserved; in the words of the *Calvert Cliffs*' decision, it fell to the

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[73] *See* Thomas Merrill, *Capture Theory and the Courts*, 72 Chi.-Kent L. Rev. 1039 (1997).

[74] *See* Energy Reorganization Act of 1974, Pub. L. No. 93-438, 88 Stat. 1233, (codified in scattered sections of 42 U.S.C.); 42 U.S.C. § 7151 (transferring responsibilities of the Energy Research and Development Administration; to the newly created Department of Energy); *see also* Walker, *supra* note 3, at 417-25 (describing criticisms of the AEC as too soft on the nuclear industry); Robert J. Duffy, *Nuclear Politics in America* 103-22 (1997) (describing origins and enactment of the 1974 legislation).

courts to ensure that "important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy."[75] In this scheme, " agencies and courts together constitute a partnership in furtherance of the public interest."[76] The D.C. Circuit was not alone in thus expanding the role of the courts in regulation. Indeed, the Supreme Court seemed to signal that change was afoot with its 1971 decision in *Citizens to Preserve Overton Park v. Volpe*, which—while stating that courts should not substitute their views for those of an agency—also required that judicial review be "searching and careful."[77] But it was the D.C. Circuit that most clearly developed a new approach to informal rulemaking. The new climate of judicial review extended to decisions of the AEC. That agency previously had received gentle treatment at the hands of the D.C. Circuit,[78] but *Calvert Cliffs'* signaled that those halcyon days were largely over.

Although the D.C. Circuit was in agreement on the need for greater judicial oversight of agency decisionmaking, a deep debate raged on that court about the form this oversight should take. According to Judge Bazelon, courts lacked the technical competence to assess the scientific evidence underlying many of the new regulations. As a result:

> [T]he best way for courts to guard against unreasonable or erroneous administrative decisions is not for the judges themselves to scrutinize the technical merits of each decision. Rather, it is to establish a decision-making

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[75] *Calvert Cliffs' Coordinating Comm. v. AEC*, 449 F.2d 1109, 1111 (D.C. Cir. 1971).

[76] *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 851-52 (D.C. Cir. 1970)

[77] 401 U.S. 402, 416 (1971); *see also* Peter Strauss' comment on *Overton Park* in this volume.

[78] *See, e.g., Siegel v. AEC*, 400 F.2d 778, 783-84 (D.C. Cir. 1968) (describing AEC as unique in the breadth of its discretion and in close supervision by Congress through the Joint Committee on Atomic Energy).

> process that assures a reasoned decision that can be held up to the scrutiny of the scientific community and the public.[79]

But several of his colleagues argued that courts lacked authority to impose procedural mandates not based in statutes or the Constitution, and worried that imposition of additional procedures would undermine informal rulemaking's advantages. Instead, they argued courts must undertake searching substantive review of agency decisionmaking. The most prominent advocate of this view was Judge Leventhal, who also coined the phrase "hard look" review by which such substantive scrutiny came to be known. Leventhal insisted courts could undertake such scrutiny without intruding on agencies' policy prerogatives. Regardless, they had no choice but to steep themselves in the substantive details of the underlying subject matter:

> [W]hile giving up is the easier course, it is not legitimately open to us at present. Our present system of review assumes judges will acquire whatever technical knowledge is necessary as background for decision of the legal questions.
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> . . . Better no judicial review at all than a charade that gives the imprimatur without the substance of judicial confirmation that the agency is not acting unreasonably.[80]

The D.C. Circuit's debate between procedural and substantive review was carried out over several years in the pages of the F.2d, without a clear victor emerging. In some decisions, such as *International Harvester*, the D.C. Circuit appeared to opt for the proceduralist approach, requiring the agency to employ some form of cross-examination on remand even though such

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[79] *Int'l Harvester Co. v. Ruckelhaus,* 478 F.2d 615, 650, 652 (D.C. Cir. 1973) (Bazelon, C.J., concurring in result); *see Ethyl Corp. v. EPA*, 541 F.2d 1, 66-68 (D.C. Cir. 1976) (Bazelon, C.J., concurring); *see generally* David L. Bazelon, *Coping with Technology through the Legal Process*, 62 Cornell L. Rev. 817 (1977).

[80] *Ethyl Corp.*, 541 F.2d at 68-69 (Leventhal, J., concurring); *see generally* Harold Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. Pa. L. Rev. 509 (1973). Judge Wright took a similar view. *See* J. Skelly Wright, *The Courts and the Rulemaking Process: The Limits of Judicial Review*, 59 Cornell L. Rev. 403 (1973).

procedure was not required by § 553.[81] In others, however, the court justified its procedural impositions as stemming from § 553 itself. *Portland Cement Association v. Ruckelshaus*, a 1973 decision, demonstrates this approach of putting a heavy interpretive gloss on the procedures actually required by § 553; the D. C. Circuit there read § 553's minimal notice demand as requiring publication of material on which an agency is relying.[82] But at the same time, several D.C. Circuit decisions instead based their procedural demands on the prerequisites for adequate judicial review. Thus, in *Kennecott Copper Corp. v . EPA,* a 1972 decision, the court held that the EPA satisfied § 553's concise and general statement requirement in setting standards for sulfur oxide. Yet it nonetheless remanded the standard to the agency for fuller explanation, emphasizing that "the provision for statutory judicial review contemplates some disclosure of the basis of the agency's action."[83] And many decisions justified the demands put on agencies on multiple grounds. In *Portland Cement*, for example—a Leventhal decision—the court relied not

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[81] *See* 478 F.2d at 649 (requiring "some opportunity for cross-examination" on remand); *Mobil Oil Corp. v. Federal Power Corp.*, 483 F.2d 1238, 1260 (D.C. Cir. 1973) (emphasizing the importance of adversarial procedures to providing substantial evidence to support agency decisions); *American Airlines v. Civil Aeronautics Bd.*, 359 F.2d, 624, 631-33 (D.C. Cir.), *cert. denied*, 385 U.S. 843 (1966) (noting court's willingness to require oral hearings in rulemakings even where not required by Congress); *see also* Scalia, *supra* note 42, at 348-52; Williams, *supra* note 42, at 425-36 (arguing that D.C. Circuit decisions seeming to require additional cross-examination in fact had a minimal impact on agency practice).

[82] 486 F.2d 375, 392-94 & n.67 (D.C. Cir. 1973). Other examples of this approach to § 553 are *United States v. Nova Scotia Foods Corp.*, 568 F.2d 240, 252-53 (2d Cir. 1977) (adopting similar approach to § 553's notice and concise general statement requirements); *Automotive Parts & Accessories Ass'n v. Boyd*, 407 F.2d 330, 338 (D.C. Cir. 1968) (warning against agencies reading § 553's requirement of "a concise general statement of [the rule's] basis and purpose" too literally).

[83] *See* 462 F.2d 846, 849-50 (D.C. Cir. 1972); *see also Greater Boston Television Corp.*, 444 F.2d 841, 851-53 (D.C. Cir. 1970) (describing agency obligation to "articulate with reasonable clarity its reasons for decision and identify the significance of the crucial facts," thereby ensuring for the court that it has taken "a hard look at the salient problems") (internal quotations omitted).

only on § 553's requirements but also on the courts' responsibility to steep themselves in technical matters so as to ensure agencies have undertaken reasoned decisionmaking.[84] However justified, the bottom-line effect of these D.C. Circuit decisions was the same: the development of "hybrid rulemaking," which engrafted more formal procedural elements, including often greater participation rights but at a minimum a substantial paper hearing, onto informal rulemaking under § 553.

Many of these decisions, in particular *Portland Cement*, *Kennecott Copper*, and *International Harvester*, involved the CAA. That statutory context might, at least in theory, help explain these decisions, as the court emphasized that the CAA imposed greater record and explanation requirements than contained in the APA.[85] Perhaps more importantly, the 1977 Amendments to the CAA imposed detailed procedural requirements that essentially codified and expanded on the D.C. Circuit's hybrid rulemaking precedent.[86] This suggests that these decisions could have been read as limited to the CAA context. On the other hand, the D.C. Circuit never indicated that it viewed these decisions as so limited, and on the contrary alluded to § 553 as well as the CAA. Nor have commentators, at the time or historically, viewed the decisions as CAA-specific.[87] What the 1977 CAA amendment do demonstrate, however, is that in some instances

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[84] *See* 486 F.2d at 402.

[85] For example, in holding that the EPA was not subject to NEPA's environmental impact statement in promulgating standards under section 111 of the CAA, the *Portland Cement* the court emphasized that "an EPA statement of reasons for standards and criteria [under the CAA] "require a fuller presentation than the minimum rulemaking requirement of the [APA]." *Id*. at 386.

[86] *See* 42 U.S.C. § 7607(d), historical and statutory notes; Clean Air Act Amendments of 1977, H. Rep. 294, 95th Cong., 1st Sess. at 318-25 (1977).

[87] *See, e.g., Portland Cement*, 486 F.2d at 393 n. 67; Stewart, *supra* note 70, at 762-67; *see generally* Williams, *supra* note 42.

Congress was the source of such hybrid rulemaking requirements, expressly mandating that agencies provide detailed notice, hold oral hearings on proposed rules, and (more rarely) requiring cross-examination.[88]

The D.C. Circuit's decisions on the fuel cycle rule and the two licensing proceedings reflected its turn to more searching review of informal rulemaking and agency decisionmaking more generally. In *Natural Resources Defense Council v. NRC*, an opinion written by Judge Bazelon, the court held those portions of the fuel cycle rule addressing waste disposal and reprocessing to be arbitrary and capricious, and remanded the rule to the agency.[89] The court found Dr. Pittman's testimony conclusory and his optimistic assessments of the risks posed by nuclear waste unexplained, adding that the NRC (substituted as the defendant for the now defunct AEC) compounded the problem by ignoring these deficiencies.[90] "Without a thorough exploration of the problems involved in waste disposal, including past mistakes, and a forthright assessment of uncertainties and differences in expert opinion, this type of agency action cannot pass muster as reasoned decisionmaking."[91] Moreover, "[m]any procedural devices for creating a

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[88] *See, e.g.,* 42 U.S.C. § 7607(d) (imposing detailed record, notice, and justification requirements on rulemaking under the CAA, including requiring that interested persons be given an opportunity for oral hearing and that promulgated rules respond to significant comments, criticisms, and new data submitted during the comment period); The Occupational Safety and Health Act of 1970, 29 U.S.C. § 655 (providing right to require Secretary of Labor to hold an oral hearing on proposed safety or health standards); 1 *Administrative Law Treatise* § 7.7 at 485-92 (Richard J. Pierce, Jr., ed., 2002) (describing other statutes with hybrid rulemaking requirements).

[89] *See* 547 F.2d 633, 655 (D.C. Cir. 1976).

[90] Although identifying reprocessing as another area where "detailed explanation and support for the staff's conclusions was noticeably absent from the Environmental Survey," *id*. at 647, the opinion did not provide further discussion of why the agency's treatment of reprocessing issues was inadequate.

[91] *Id*. at 647-53. The court initially identified the hearing board's failure to question Dr.

genuine dialogue on these issues were available to the agency." Although purporting "not to intrude on the agency's province by dictating to it which, if any, of these devices it must adopt to flesh out the record," the opinion concluded that "[w]hatever techniques the Commission adopts, before it promulgates a rule limiting further consideration of waste disposal and reprocessing issues, it must in one way or another generate a record in which the factual issues are fully developed."[92]

The question left hanging by the D.C. Circuit's opinion was precisely where the court thought the NRC had gone astray. Was it the failure to provide opportunity for "genuine dialogue," through cross-examination, discovery, or other procedures, that would have ensured a "thorough ventilation of the issues"?[93] Was it instead the agency's failure to produce a record that demonstrated such ventilation, however obtained? The opinion is a masterpiece of obfuscation on this point.[94] In support of the latter view is the fact that, despite frequent references to the value of additional adversarial procedures, the opinion repeatedly describes its

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Pittman as an example of the agency's insufficient probing. Upon being notified by the NRC that in fact the hearing board had questioned Dr. Pittman, the court simply deleted these references but did not otherwise alter its opinion. *See* Petitioner's Supplemental Brief & Supplemental Appendix, No. 76-419, at 1-2, app. 1-2. The original decision is reprinted in the appendix to Vermont Yankee's petition for certiorari, *see* Petitioner's Brief for Certiorari, app. 1-59, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419).

[92] *Natural Resources Defense Council*, 547 F.2d at 653-54.

[93] *Id*. at 644.

[94] The opinion is also unclear as to whether, to the extent additional procedures are required, they stem ultimately from NEPA, the APA, due process, or a generalized common law requirement of reasoned decisionmaking. Although noting at the outset that under NEPA agencies must consider contrary scientific opinion on adverse environmental effects, and that the public interest intervenors' primary complaint was that the procedures used denied their due process right to participate meaningfully in the proceedings, *see id.* at 643, 646, most of the opinion either refers to APA requirements or speaks in more general terms.

ultimate concern as being to ensure the agency adequately considered the issues at stake.[95] Yet it is hard to read the opinion except as demanding the NRC provide greater opportunities for public participation on remand, even if not specifying the exact shape these procedures must take. One member of the panel, Judge Tamm, took such a view, and therefore concurred only in the result even though he agreed that the record was inadequate to sustain the rule.[96] Judge Tamm criticized the majority for issuing a procedural mandate, leading to the oddity of Judge Bazelon issuing a separate statement to his own opinion, in which he urged agencies to adopt "innovat[ive] procedural formats" that better ensure accurate factfinding on complex scientific and technical issues or in areas where formal adjudicatory procedures traditionally were the norm.[97] Judge Bazelon's separate opinion reinforces the impression that the majority did indeed intend the NRC to provide additional adjudicatory procedures on remand.

The court also remanded the individual licensing decisions. Although affirming the NRC's authority to treat the environmental effects of the fuel cycle issue through generic rulemaking, the court rejected the appeal board's claim that it was impossible to assess such environmental effects in the context of an individual reactor proceeding. Ruling that these environment effects must be adequately considered at some point—either in generic or individual proceedings—the court also remanded the grant of Vermont Yankee's operating license.[98] Moreover, in a decision again written by Judge Bazelon, but for a different panel, the D.C. Circuit found that the AEC had erred in granting Consumers Power a construction permit for its

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[95] *See, e.g., id*. at 644, 654.

[96] *See id*. at 658-61.

[97] *Id*. at 656.

[98] *See id*. at 641 n.17.

Midland plant. The AEC's exclusion of any consideration of the environmental effects of the fuel cycle in evaluating the proposed reactors' environmental impact was one reason for the reversal. But the D.C. Circuit additionally faulted the Commission for failing to seek greater clarification of a statutorily-mandated independent safety report and for not investigating energy conservation as an alternative to the proposed reactors. According to the court, NEPA required agencies to investigate any colorable alternatives and energy conservation was such an alternative, despite the intervenors' failure to do much more than simply assert that conservation could render the proposed reactors unnecessary.[99]

The D.C. Circuit's handling of these cases seems inordinately slow; even the court acknowledged that its decision in *Aeschliman* was "long delayed."[100] The petition for review of the grant of the Consumers Power construction permit was filed in 1973, and for review of the fuel cycle rule and the award of Vermont Yankee's operating license in 1974. Yet the D.C. Circuit did not issue its decisions until two years later, in July 1976.[101] Vermont Yankee was already operating, and therefore the impact on it of this delay was fairly minimal. But for Consumers Power, the wait meant a multi-year delay in commencing construction, which could (and did) prove very costly to the Midland project. Perhaps recognizing this impact, the court

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[99] *See Aeschliman v. NRC*, 547 F.2d 622, 627-31 (D.C. Cir. 1977); *see also id*. at 631 (instructing the NRC to take into account changes in Dow Chemical's need for process steam in redoing the cost-benefit analysis for the environmental impact statement to include fuel cycle environmental effects).

[100] *Id*. at 624 n.4.

[101] The decision in *Aeschliman* was held by the court first for the AEC to consider motions to reopen and then pending the decision in the fuel cycle rulemaking. *See id*.

subsequently refused the intervenors' request that it set aside the Consumers Power's construction permit, allowing construction of the Midland reactors to proceed.[102]

The most significant effect of all, however, was the impact on nuclear licensing generally. The decisions called into question not only all licenses in which the now-vacated Table S-3 values were used to assess a reactor's environmental impact, but in addition all licenses which the AEC determined should not be reopened for application of Table S-3 and the fuel cycle rule. Moreover, until the rule was amended to address the D.C. Circuit's concerns, no reactors could be licensed without consideration of the fuel cycle's environmental effects in the individual license proceedings. Hence, in response to the decision the NRC put all nuclear licensing on hold until the *Environmental Survey* could be revised and an interim rule issued.[103]

III. *Vermont Yankee* at the Supreme Court

The stage then shifted to the Supreme Court. Both Vermont Yankee and Consumers Power petitioned for writs of certiorari. On the face of it, the odds of getting the Court to grant cert would seem poor. Not only was the exact nature of the D.C. Circuit's holding on the fuel cycle rulemaking ambiguous, but appellate reversal of two discrete and largely factbound agency licensing proceedings, even if erroneous, rarely triggers further review. Indeed, the ambiguities of the D.C Circuit's decision led to the novelty of the government submitting a "Janus-like" brief

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[102] *See Aeschliman v. NRC*, Docket Sheet, No. 73-1776 (noting petitioner's first emergency motion to enforce mandate filed on Oct. 6, 1977 and denied by the court on Oct. 27, 1977, and second motion filed on Mar. 20, 1978).

[103] *See Environmental Effects of the Uranium Fuel Cycle*, 41 Fed. Reg. 34,707, 34,708 (1976). The NRC subsequently resumed licensing shortly after it issued a revised *Environmental Survey* and proposed interim fuel cycle rule. *See Environmental Effects of the Uranium Fuel Cycle*, 41 Fed. Reg. 49,898, 49,899 (1976).

that simultaneously argued for *and* against a grant of certiorari.[104] The NRC read the D.C. Circuit as holding the rulemaking to be procedurally defective, albeit in compliance with § 553, and argued that the question of a court's authority to impose procedural requirements beyond those contained in § 553 merited Supreme Court reversal. The Solicitor General's position, on the other hand, was that the D.C. Circuit had simply held that the record in the fuel cycle rulemaking was inadequate; an erroneous decision but not one that merited Supreme Court review.[105] The Solicitor General agreed, however, that the D.C. Circuit's errors were more significant if the decision were read as reversing the Commission on procedural grounds.[106]

The contrasting positions of the NRC and the Solicitor General on the need for Supreme Court review merits note, because it underscores the different perspective of attorneys whose responsibility is to represent the government generally in court and those who provide counsel to specific agencies. From the Solicitor General's point of view, the ideal response to the D.C. Circuit's decision would be for the NRC on remand to supplement the record to provide additional support for its conclusions, but not change its procedures. If the appellate court again

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[104] *See Vermont Yankee*, 438 U.S. at 540 n.15.

[105] *See* Brief for the Federal Respondents on Petition for Certiorari at 5-10, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528, 76-548 and 76-745). The Solicitor General's willingness to go ahead and file such a brief stemmed in part from the fact that the government needed to respond to the cert petitions filed by Vermont Yankee and Consumers Power, but also may have reflected a desire to avoid debate over whether agencies that have statutory authority to represent themselves in court can appear before the Supreme Court without Solicitor General approval. *See* Interview with Peter L. Strauss, General Counsel to the NRC 1975-77, in New York, N.Y. (Aug. 29, 2004) [hereinafter Strauss Interview]. For a discussion of issues raised by Solicitor General control over independent agencies' access to the Court, *see generally* Neal Devins, *Unitariness, Independence, and Solicitor General Control over Independent Agency Litigation*, 82 Cal. L. Rev. 215 (1994).

[106] *See* Brief for the Federal Respondents, *supra* note 105, at 9; Brief for the Federal Respondents at 37, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528).

reversed, the question of the propriety of judicial imposition of procedures in excess of § 553's requirements would then be cleanly presented, and the government would have an ideal test case with which to take this issue to the Court. The NRC and its lawyers, however, had no interest in developing an ideal test case; their focus was instead on devising a response to the decision that would allow licensing to resume as quickly as possible. It was for this reason that the NRC reopened the fuel cycle rule for further proceedings even while the petitions for certiorari were pending. But rather than risk a second reversal, the NRC wanted to fashion this supplemental rulemaking to ensure that it would meet the D.C. Circuit's procedural as well as substantive concerns.[107] Hence, although the agency adopted an interim rule using only § 553's notice and comment procedures, it planned to hold oral hearings on the final revised fuel cycle rule at which participants could propose questions for the hearing board to ask.[108]

Of course, that the NRC intended to go forward with additional proceedings on the fuel cycle rule was another factor making grant of certiorari unlikely. But the Court seems not to have focused on the fact that agency proceedings were ongoing at the certiorari stage. As a result, much of the discussion at oral argument focused on the status of the rulemaking and Vermont Yankee's license, and after argument there was supplemental briefing on whether the case had become moot.[109] Moreover, the D.C. Circuit decision clearly was having a significant effect on nuclear licensing. Previously, the Court had been willing to review appellate court

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[107] *See* Strauss Interview, *supra* note 105.

[108] *See Uranium Fuel Cycle Impacts from Spent Fuel Reprocessing and Radioactive Waste Management*, 42 Fed. Reg. 13,803, 13,805-06 (1977); Transcript of Oral Argument 23, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528).

[109] *See* Transcript of Oral Argument, *supra* note 100, at 5-6, 13-18, 17-24, 34-36, 54; *see also* Motion to Dismiss and Suggestion of Mootness, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Dec. 1, 1977) and responding briefs.

decisions having a major impact on the nation's nuclear program notwithstanding the presence of similar factors counseling against a grant of certiorari.[110] For this reason, neither Richard Ayres, who argued the case at the Court on behalf of the NRDC, nor Anthony Roisman was surprised that the Court decided to take the case.[111]

In any event, grant the Supreme Court did. Acknowledging that "the matter is not entirely free from doubt," the Court read the D.C. Circuit as invalidating the fuel cycle rule because of procedural deficiencies. It then soundly reversed the D.C. Circuit in a unanimous decision, written by then-Justice Rehnquist, in which seven justices participated.[112] The Court left open the possibility that judicial procedural impositions might be warranted in some contexts, for example when needed to satisfy due process in quasi-adjudicatory proceedings or when an agency departs without justification from "well-settled agency procedures of long standing." However, "such circumstances, if they exist, are extremely rare,"[113] and this was not one of them. Lest there be any doubt about its bottom line, the Court stated: "[T]his much is absolutely clear. Absent constitutional constraints or extremely compelling circumstances the

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[110] *See, e.g., Duke Power Co. v. Carolina Envtl. Study Group, Inc.*, 438 U.S. 59 (1978) (reversing on the merits lower court determination that the Price-Anderson Act, capping plant operators' liability for nuclear accidents, was unconstitutional despite serious questions regarding whether the citizen groups that brought the suit had standing).

[111] Telephone Interview with Richard Ayres, Richard Ayres, principal of the Ayres Law Group and co-founder NRDC (November 30, 2004); Roisman Interview, *supra* note 14.

[112] *Vermont Yankee*, 435 U.S. at 540-41. Justices Powell and Blackmun did not participate.

[113] *Id*. at 524, 542.

administrative agencies should be free to fashion their own rules of procedure and to pursue methods of inquiry capable of permitting them to discharge their multitudinous duties."[114]

According to the Court, its prior decisions had rejected the view that the APA only set out the procedural minima to which an agency must adhere, with courts free to amplify procedural requirements due to the complexity or importance of the substantive issues involved. On the contrary, the Court read the APA as "generally speaking . . . establish[ing] the maximum procedural requirements which Congress was willing to have the courts impose on agencies" in rulemaking. The procedural requirements of the APA were, in the Court's view, "a formula upon which opposing social and political forces ha[d] come to rest," and not intended to evolve over time through judicial innovation.[115] Instead, under the APA, discretion to impose additional procedures lay in the agencies, not in the courts.[116] Judicial second-guessing of agency procedural choices was not only precluded by the APA, but also unwise on policy grounds. Faced with unpredictable judicial procedural mandates and "Monday morning quarterbacking" based on how well their chosen procedures actually functioned, agencies "would undoubtedly adopt full adjudicatory procedures in every instance, . . . [and] the inherent advantages of informal rulemaking would be totally lost."[117]

Strong words, but the Court saved its harshest language for its assessment of the D.C. Circuit's decision in the Consumers Power proceeding. According to the Court, the appellate

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[114] *Id*. at 543.

[115] *Id*. at 523-24 (quoting *Wong Yang Sung v. McGrath*, 339 U.S. 33, 40 (1950)).

[116] *Id*. at 524, 545-46.

[117] *Id*. at 546-47.

court's decision reversing the grant of Consumers Power's construction permit "borders on the Kafkaesque":

> Nuclear energy may some day be a cheap, safe source of power or it may not. But Congress has made a choice to at least try nuclear energy. . . . The fundamental policy questions appropriately resolved in Congress and in the state legislatures are *not* subject to reexamination in the federal courts.[118]

The Court could not have made plainer its view that the D. C. Circuit had overstepped its proper role and illegitimately used its judicial review function to advance its judges' own policy preferences. This harsh tone prompted a protest by senior D.C. Circuit Judge Fahy, who had sat on the *Aeschliman* panel. In a memo to the other circuit judges, which he also sent to Chief Justice Burger, Judge Fahy remarked that while he expected reversal, he "was surprised . . . by the severity" and "the unseemly character of the criticism heaped upon us"—criticism he argued was unfair and rested on the Court's failure to recognize that the D.C. Circuit had not stopped construction of the Consumers Power reactors.[119]

Given its unsparing condemnation of the D.C. Circuit, outright reversal would seem to follow as a matter of course. But instead the Court remanded to the D.C. Circuit for further review. Noting that "[t]here are also intimations in the majority opinion" suggesting that the judges believed the administrative record was inadequate to support the fuel cycle rule, the Court remanded to let the lower court rule expressly on the record's adequacy. Moreover, the Court emphasized that it was taking no position on this question. "Upon remand, the majority of the

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[118] *Id*. at 557-58.

[119] Memorandum to All Circuit Judges and Judge Justice From Judge Fahy, Supreme Court Decision in *Consumers Power Co. v. Aeschliman,* at 1-2 (Apr. 5, 1978), (on file with the Biddle Library, University of Pennsylvania Law School, Papers of Judge David L. Bazelon (Box 48, Folder 2)).

panel of the Court of Appeals is entirely free to agree or disagree with Judge Tamm's conclusion that the rule pertaining to the back end of the fuel cycle under which petitioner Vermont Yankee's license was considered is arbitrary and capricious" even if not procedurally faulty.[120] In other words, despite its stern language, the Court made clear that its decision might not affect the result in the case, as the lower court was free to remand the fuel cycle rule to the agency provided it did so on substantive rather than procedural grounds.

Judge Fahy was right to expect reversal once the Court granted review. As the Court itself and then-Professor Antonin Scalia argued, the D.C. Circuit's willingness to impose procedural requirements not based in statutes was, if not directly at odds, certainly in strong tension with prior Supreme Court decisions.[121] In particular, two lines of precedent presaged the result in *Vermont Yankee*. The first was the Court's willingness to allow agencies to forego formal adjudicatory or formal rulemaking procedures, even in contexts where it was originally expected such procedures would be used. Fairly early on in the life of the APA, in *United States v. Storer Broadcasting Company*, the Court ruled that a statutory requirement of a full hearing did not preclude an agency from using informal rulemaking to issue rules that significantly limited the scope of adjudicatory hearings.[122] In two decisions issued in the early 1970s, *United States v. Florida East Coast Railway Company* and *Allegheny-Ludlum Steel Corporation*, the Court also took a narrow view of when agencies are required to use the APA's formal

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[120] 435 U.S. at 535 n.14; *see also id*. at 549 (same).

[121] *See id.* at 524-25, 542-45; Scalia, *supra* note 42, at 356-57, 359-75.

[122] 351 U.S. 192, 203-05 (1956); *see also Fed. Power Comm'n v. Texaco*, 377 U.S. 33, 39 (1964). No doubt as a result of this clear precedent, none of the intervenors argued to the D.C. Circuit or the Supreme Court that the NRC lacked authority to address the environmental effects of the fuel cycle through generic rules and instead had to consider this issue on a case-by-case basis in individual licensings. *See Vermont Yankee*, 435 U.S. at 535 n.13.

rulemaking procedures, holding that a statutory provision authorizing an agency to issue rules only "after hearing" was insufficient on its own to trigger formal rulemaking.[123] As the Atomic Energy Act included a similar hearing requirement, providing that the Commission must provide a hearing if requested "[i]n any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees," *Vermont Yankee*'s unsubstantiated statement that nothing in the NRC's statutory mandate required additional procedures rests on the *Florida East Coast/Allegheny-Ludlum* holdings.[124] *Vermont Yankee* thus represents affirmation of agencies' power to use informal rulemaking in a broad array of contexts in lieu of the APA's more formal procedures.

The second line was the Court's decisions upholding an agency's discretion to control its mode of procedure in the absence of statutory (or constitutional) mandates. In *SEC v. Chenery Corporation*, a decision issued shortly after the APA became effective, the Court held that the choice to proceed by adjudication or rulemaking "is one that lies primarily in the informed

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[123] *See Florida East Coast*, 410 U.S. 224, 234-38; *Allegheny-Ludlum*, 406 U.S. 742, 757-58 (1972).

[124] 42 U.S.C. § 2239(a)(1)(A); *Vermont Yankee*, 435 U.S. at 548; *see also Siegel v. AEC*, 400 F.2d 778, 785-86 (D.C. Cir. 1968) (holding §2239(a) did not trigger formal rulemaking requirements under the APA). Section 2239(a) seems to authorize the fuel cycle rule awkwardly at best, as the rule addresses the Commission's activities in issuing licenses more than the activities of licensees themselves. The Commission also has general rulemaking authority under 42 U.S.C. § 2201(p), but judicial review in the Court of Appeals under the Hobbs Act, the apparent basis for jurisdiction over the fuel cycle rule, is tied to orders made under § 2239. Although § 2239(b) similarly provides only for judicial review of any "order" entered in "any proceeding" under § 2239(a), and under the APA orders are generated through adjudication rather than rulemaking, by its text § 2239(a) includes some rulemaking proceedings. *See also* Nathaniel Nathanson, *The* Vermont Yankee Nuclear Power *Opinion: A Masterpiece of Statutory Misinterpretation*, 16 San Diego L. Rev. 183, 189-95 (1978) (critiquing the Court for reading the Atomic Energy Act as not requiring formal procedures for rulemaking undertaken under § 2239).

discretion of the administrative agency."[125] The Court reaffirmed this view that an agency must have discretion to determine which procedures best serve its purposes just three years before the *Vermont Yankee* decision, in *NLRB v. Bell Aerospace Company*,[126] as well as in *Florida East Coast Railway*.[127] The Court also expressed this insistence on agency procedural discretion in decisions such as *Federal Power Commission v. Transcontinental Gas Pipe Line Corporation*, where it faulted an appellate court for "dictating to the agency the methods, procedures, and time dimensions" which would govern agency proceedings on remand. Having found the agency's record inadequate to sustain its decision, the proper course was instead for the court "to remand to the agency in order that it can exercise its administrative discretion in deciding how . . . it may best proceed to develop the needed evidence."[128] Indeed, this was exactly the approach the Court ultimately took in *Vermont Yankee*, when it left the D.C. Circuit free to hold that the fuel cycle record as it currently stood was inadequate.

A third trend that sealed the D.C. Circuit's fate was broader and more ideological. Loss of faith in apolitical agency expertise and concerns about agency capture affected the Supreme Court as well as the D.C. Circuit in the 1960s and 1970s. One manifestation was the Court's dramatic relaxing of standing and ripeness rules, another its willingness to engage in searching

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[125] 332 U.S. 194, 203 (1947).

[126] 416 U.S. 267, 292-95 (1974).

[127] 410 U.S. at 242-45.

[128] 423 U.S. 326, 331-34 (1976) (*per curiam*); *see also FCC v. Schreiber*, 381 U.S. 279, 290-91 (1965) (reasserting "the established principle that administrative agencies 'should be free to fashion their own rules of procedure and to pursue methods of inquiry capable of permitting them to discharge their multitudinous duties'") (quoting *FCC v. Pottsville Broad. Co.*, 309 U.S. 134, 143 (1940)); *see also Vermont Yankee*, 435 U.S. at 524-25, 543-45 (discussing *FPC*, *Schreiber*, and *Pottsville*).

substantive scrutiny of agency decisions under the APA's "arbitrary and capricious" standard. The effect of both developments was to foster far greater and earlier judicial review of agency action than the APA's drafters would have envisioned, thus calling into serious question the assertion in *Vermont Yankee* that courts should adhere to the specific terms of the APA so as not to deviate from the careful political compromise that the statute represented.[129] But by the 1980s, changes were afoot. Public choice theory, with its skepticism about judicial impartiality and conception of statutes as political compromises, buttressed growing opposition to judicial policymaking on separation of powers grounds. The result was a turn towards formalism and textualism in statutory construction and away from more open-ended judicial development of administrative law.[130] *Vermont Yankee* is not a clear exemplar of this change; the decision was issued in the late 1970s and invokes policy concerns to justify its conclusions.[131] Nonetheless, with its resistance to judicial inventiveness and its originalist approach to interpreting the APA, *Vermont Yankee* signaled this coming trend in administrative law.

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[129] *See, e.g.,* Scalia, *supra* note 42, at 377-81; Stewart, *supra* note 54, at 1814-15; Strauss, *supra* note 70, at 1401-05, 1407-08; *see also* Kenneth C. Davis, *Administrative Common Law and the* Vermont Yankee *Opinion*, 1980 Utah. L. Rev. 3, 7-12 (1980) (arguing Supreme Court has always taken a more common law approach to administrative law and the APA's framers expected it to do so). *But see* Clark Byse, Vermont Yankee *and the Evolution of Administrative Procedure: A Somewhat Different View,* 91 Harv. L. Rev. 1823, 1829 (1978) (arguing ripeness and standing doctrines are distinguishable from other provisions of the APA).

[130] *See* Merrill, *supra* note 73, at 1043-48, 1067-74; William N. Eskridge, Jr., *The New Textualism*, 37 UCLA L. Rev. 621, 646-66 (1990); Philip P. Frickey, *From the Big Sleep to the Big Heat: The Revival of Theory in Statutory Interpretation*, 77 Minn. L. Rev. 241, 244-56 (1992); *see generally* Strauss, *supra* note 70 (discussing changes in the Court's approach to interpreting the APA).

[131] *See* John Duffy, *Administrative Common Law in Judicial Review*, 77 Tex. L. Rev. 113, 139-46, 184-89 (1998) (noting change in statutory interpretation but arguing that *Vermont Yankee* should be viewed as an instance of administrative common law).

But while the Court's rejection of judicial procedural impositions was to be expected, the unanimity of the *Vermont Yankee* decision *is* surprising. Joining the Court's decision without reservation were Justices Brennan and Marshall, hardly thought of as opponents of judicial activism. While the animosity between Chief Justice Burger and Judge Bazelon was well-known, Justices Brennan and Marshall were good friends with Bazelon; indeed, Justice Brennan was a regular at the Kronheim lunches.[132] Their acquiescence in the Court's harsh criticism of the lower court is thus hard to explain. Particularly given that the Court ended up remanding rather than reversing the D.C. Circuit, and that NRC was committed to revising the fuel cycle rule regardless of the Court's decision, it seems odd that none of the Justices who participated in the case challenged the Court's decision to reach the merits.

In fact, however, they did. Justice Brennan led the charge, quickly drafting an opinion that would dismiss the grant of certiorari as improvidently granted (or DIG, in the Court's parlance) once it became apparent after oral argument and supplemental briefing that the NRC intended to go forward with a new rulemaking.[133] Like the Court's published opinion, Justice Brennan's draft stated that the Court of Appeals had erred "[i]f the Court of Appeals had decided that NEPA requires procedures in rulemaking in excess of those expressly required by the [APA]" and that the occasions for judicial imposition of hybrid rulemaking procedures are "severely limited." However, Justice Brennan was far more generous in his reading of the D.C. Circuit's opinion, rejecting the procedural interpretation advocated by Vermont Yankee and the

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[132] *See* Barbash, *supra* note 69, at A2.

[133] *See* Memorandum from Justice Brennan to the Conference, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Jan. 12, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)).

NRC: "Instead, we understand the Court of Appeals to have held only that the original spent fuel rule was inadequately supported by the rulemaking record." And review of this determination—unlikely to warrant Supreme Court consideration in any event—was particularly inappropriate given that the NRC was committed to revising the rule.[134]

Justice Brennan's efforts proved unavailing. In a responding memorandum, Justice Rehnquist made clear he would dissent from any effort to dismiss the grant of certiorari, stressing the continuing impact of the D.C. Circuit's decision on the licenses of the two plants involved and reactor licensing generally.[135] His views carried the day, with Chief Justice Burger, Justice White and Justice Stevens also voting against dismissal.[136] Justice Brennan then turned his attentions to trying to temper Justice Rehnquist's proposed draft. He again urged that the better course was to read the D.C. Circuit decision as simply holding the fuel cycle rule was inadequately supported by the record, with an aside to the effect that judicial imposition of procedures would be plainly improper here. And he also argued against remanding, stating "[w]hether or not a remand [for further consideration] could be said to 'border[] on the

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[134] *See* Brennan First Printed Draft at 8-9, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Feb. 17, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)). Justice Brennan even included a footnote specifically defending Judge Bazelon against the charge that he had sanctioned imposition of additional procedures in his separate opinion below. *See id.* at 9 n.15.

[135] *See* Memorandum from Justice Rehnquist to Justice Brennan, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Jan. 17, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)).

[136] *See* Memorandum from Justice Rehnquist to Justice Brennan, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Feb. 10, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)).

Kafkaesque,' I do think it simply wastes everyone's time."[137] But here too, Justice Brennan's renowned powers of persuasion fell short, with Justice Rehnquist refusing to accept a non-proceduralist reading of the lower court's decision.[138] Although at first threatening to write separately, Justice Brennan ultimately signed onto Justice Rehnquist's opinion in full, remarking to Justice Rehnquist "you are a damned good fisherman. Indeed, so good that I now give up the sporting fight and 'acquiesce' in your catch in these cases."[139]

IV. The Impact of *Vermont Yankee*

Vermont Yankee sparked extensive commentary when it was issued, as well as extensive briefing when it was before the Court.[140] Its unqualified and stern language reinforces the

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[137] *See* Memorandum from Justice Brennan to Justice Rehnquist *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Feb. 27, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)). Justice Marshall also suggested a few modifications "to soften some of the language just a bit," which Justice Rehnquist took. Justice Marshall's suggestions were minor language tweakings that left more room for the possibility that additional procedures might be judicially required. Memorandum from Justice Marshall to Justice Rehnquist, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Mar. 3, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)).

[138] *See* Memorandum from Justice Rehnquist to Justice Brennan, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Feb. 27, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)) ("I do not think it can be fairly said that the Court of Appeals did not review the procedures employed by the agency and remand because it considered the procedures inadequate.").

[139] *See* Memorandum from Justice Brennan to Justice Rehnquist, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Feb. 28, 1978) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)); Memorandum from Justice Rehnquist to Justice Brennan, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978) (Nos. 76-419, 76-528) (Mar. 20, 1976 [sic]) (on file with the Library of Congress, Manuscript Room, Papers of Justice Thurgood Marshall (Box 201)).

[140] For academic commentary, *see* articles cited in *supra* notes 42, 54, 124, 12 & *infra* note 141. For discussion of the briefing in *Vermont Yankee*, *see* Strauss, *supra* note 70, at

impression that it is an administrative law decision of major import, and the opinion is a leading case in every administrative law casebook. But how significant was *Vermont Yankee* really, in the end?

One reason to question its importance is evident on the face of the decision itself, in the fact that the Court remanded for the D.C. Circuit to determine whether the fuel cycle rule was adequately supported by the record. As several commentators remarked, if the Court meant to leave substantive judicial review unaffected and only curb judicial imposition of procedural requirements, then the decision's actual import would be far more limited than might at first appear.[141] Judge Leventhal would be crowned the victor in his battle with Judge Bazelon—which was indeed how the former viewed the decision[142]—but in practice little would change. Courts would remain active in policing and overseeing informal rulemaking.

Over time, it has become apparent that the Court did intend to draw such a distinction between procedure and substance in judicial review. To be sure, the Court at times has taken a highly deferential stance in scrutinizing an agency's substantive conclusions—a prime example being the decision in *Baltimore Gas & Electric Company v. NRDC*, when the fuel cycle rule made its next (and final) appearance before the Court. On remand from *Vermont Yankee*, the

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1408-11.

[141] *See, e.g.,* Paul R. Verkuil, *Judicial Review of Informal Rulemaking: Waiting for* Vermont Yankee III, 55 Tul. L. Rev. 418, 418-19 (1981); *see also* Byse, *supra* note 129, at 1826-30 (1978) (supporting decision in *Vermont Yankee* but arguing that courts retain power to adequately oversee agency procedures through substantive review); Davis, *supra* note 129, at 16 (criticizing the *Vermont Yankee* decision but arguing that the Court's retention of substantive scrutiny may limit its impact); William H. Rodgers, Jr., *A Hard Look at* Vermont Yankee: *Environmental Law Under Close Scrutiny*, 67 Geo. L.J. 699, 713-15 (1979) (arguing *Vermont Yankee* unlikely to effect hard look review, but will discourage agencies' procedural innovations).

[142] *See* Strauss, *supra* note 70, at 1412 & n.68.

D.C. Circuit first stayed the proceeding to allow the NRC to issue its revised fuel cycle rule and then, in a lengthy decision, held the new rule was inadequately supported by the record. In the D.C. Circuit's view, the NRC's continuing refusal to take the uncertainties involved in long-term storage and disposal of nuclear waste into account in balancing the costs and benefits of nuclear reactors violated NEPA and was arbitrary and capricious.[143] Once more, however, the Court disagreed. In an opinion written by Justice O'Connor, it held that where, as here, an agency is "making predictions, within its area of special expertise, at the frontiers of science[,] . . . . a reviewing court must generally be at its most deferential."[144] Particularly important for the Court was the NRC's openness regarding the uncertainties that underlay its approach (an openness that contrasted with the AEC's earlier uncritical acceptance of Dr. Pittman's testimony).

But notwithstanding such deference to agency decisionmaking under conditions of uncertainty, the Court has continued to adhere to *Overton Park*'s emphasis on judicial responsibility to engage in close scrutiny of agency decisionmaking. In *Motor Vehicle Manufacturers Association v. State Farm Mutual Auto Insurance Company*, a decision issued less than three weeks after *Baltimore Gas*, the Court described the judicial task as being to ensure that agencies "examine the relevant data[,] articulate a satisfactory explanation for [their] actions," consider "the relevant factors" and not ignore "an important aspect of the problem."[145]

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[143] *See NRDC v. NRC*, 685 F.2d 459, 478-85 (D.C. Cir. 1982).

[144] *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103-04 (1983). It is worth noting that Justice Brennan again tried to mitigate criticism of Judge Bazelon and the D.C. Circuit, prompting Justice Blackmun to write in his personal notes on the case that Brennan "is protecting his friend, and with difficulty." *See* Conference Sheet, *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87 (1983) (Nos. 82-524, 82-545, 82-551) (on file with the Library of Congress, Manuscript Room, Papers of Justice Harry Blackmun (Box 386)).

[145] *See* 463 U.S. 29, 42-43 (1983).

The APA supports requiring agencies to compile administrative records adequate to explain their decisions, authorizing courts to "set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, [or] an abuse of discretion."[146] However, the level of agency explanation and factual basis that courts often require goes beyond that mandated the mild language of this provision. Thus, such rigorous substantive scrutiny would seem to contradict the holding of *Vermont Yankee*.[147]

In *Pension Benefit Guaranty Corp. v. LTV Corporation*, the Court attempted to diffuse this charge of inconsistency. According to the Court, its decisions upholding searching substantive review at most impose a "general procedural requirement of sorts . . . that an agency take whatever steps it needs to provide an explanation that will enable the court to evaluate the agency's rationale." By contrast, "*Vermont Yankee* stands for the general proposition that courts are not free to impose upon agencies specific procedural requirements that have no basis in the APA."[148] In practice, however, this distinction between general and specific procedural mandates may offer little comfort to agencies. Whether a court phrases its complaint in terms of the general inadequacy of the record or specific procedural deficiencies, the net result is a remand. Moreover, on *Vermont Yankee*'s own reasoning, the rational administrative response to searching substantive review is to act preemptively by developing an exhaustive record, responding to every possible later judicial objection, which imposes delay and limits the flexibility of informal rulemaking in the same way as does judicial procedural scrutiny.

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[146] 5 U.S.C. § 706(2)(A).

[147] *See* Stewart, *supra* note 54, at 1816.

[148] 496 U.S. 633, 654-55 (1990).

Equally important, *Vermont Yankee* has not called into question lower court decisions adopting expansive accounts of the terse and minimal requirements of § 553. As noted, this practice is evident in several decisions issued prior to *Vermont Yankee*, such as *Kennecott Copper* and *Portland Cement*, and it continued unabated after the *Vermont Yankee* decision came down. For example, courts have held that agencies violate § 553's minimal demand that an agency provide notice of "either the terms or substance of the proposed rule or a description of the subjects and issues involved" if the rule ultimately adopted is not adequately foreshadowed by the agencies' original proposal. They have also read § 553 as requiring that the agency provide notice of the data and studies on which the proposed rule is based.[149] Neither the Court nor the participants in *Vermont Yankee* ever called into question these decisions adopting expansive readings of § 553's requirements, and the Court has not seen fit to do so since.

It is interesting to puzzle over why these decisions interpreting § 553 were unaffected by *Vermont Yankee*, despite their seeming tension. The answer that these paper hearing requirements are rooted in the text of the APA is implausible; like searching substantive scrutiny, these requirements go far beyond the minimal language of the APA and its framers' original understandings. Instead, the explanation may lie in the disconnect between *Vermont Yankee*'s dictate and contemporary administrative reality. Allowing agencies to provide only vague and general information on their proposed actions became untenable in light of the expansion and import of informal rulemaking, as well as changing norms regarding openness in government incorporated in the Freedom of Information Act and other statutes. The need to preserve mechanisms for ensuring agency accountability led courts to read *Vermont Yankee* in the

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[149] *See, e.g., Black Media Coalition v. FCC*, 791 F.2d 1016 (2d Cir. 1986); *see generally* 1 *Administrative Law Treatise*, *supra* note 88, § 7.3 at 430-41.

narrowest of terms, as disavowing ad hoc procedural review of the kind advocated by Judge Bazelon but not challenging the fundamental image of courts and agencies as partners in the quest for reasoned decisionmaking. Moreover, it is not surprising that courts would continue to rely on procedural requirements in particular as a means of reining in agencies, giving their familiarity and comfort with adjudicatory process.[150]

Vermont Yankee thus had fairly minimal effect on the courts' transformation of informal rulemaking procedures and the development of paper hearing requirements.[151] Yet it is also important not to ignore the impact that the decision did have. Notwithstanding the creative judicial interpretations of § 553's text, *Vermont Yankee* limited judges' ability to constrain agencies through procedural means. Further, the Court's remand for the D.C. Circuit to determine the adequacy of the fuel cycle rulemaking record conveyed its evident sanction of substantive review of agency decisionmaking. The net result was to give a green light to the hard look doctrine and close judicial scrutiny of rulemaking records, an approach the Supreme Court even more expressly sanctioned in *State Farm*. Much administrative law scholarship has since condemned such searching substantive review as creating major problems for informal rulemaking. According to these critics, courts lack the scientific and technical knowledge to distinguish the wheat from the chaff, and have held up or reversed major rulemaking efforts because of minor errors. Moreover agencies, fearing reversal, have felt obliged to respond in

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[150] *See* Peter L. Strauss et al., *Gellhorn and Byse's Administrative Law* 510-15, 549 (10th rev. ed., 2003); Edward Rubin, *It's Time to Make the Administrative Procedure Act Administrative*, 89 Cornell L. Rev. 95, 111 (2003).

[151] *See* Strauss, *supra* note 70, at 1410-11; *see also* Stewart, *supra* note 54, at 1812-14 (expressing concern that *Vermont Yankee* jeopardized decisions developing idea of paper hearing).

detail to minor issues, transforming rulemakings into lengthy, resource-intensive proceedings and destroying their promise as a means of efficient and coherent regulation.[152]

Of course, these criticisms of the hard look doctrine may be misguided, and in any event judicial procedural review might well have had a similar effect. Certainly, the benefits of greater adversarial procedures are easy to exaggerate.[153] But it is worth noting that despite the D.C. Circuit's greater affection for cross-examination and other adversarial mechanisms, not even that court advocated employing full-scale adjudicatory proceedings such as are laid out in the APA's requirements for formal rulemaking. The Court's predictions in *Vermont Yankee* of dire effects from Monday-morning procedural quarterbacking may therefore have been somewhat overblown. True, the possibility of reversal on procedural grounds might well lead agency counsel to advise widespread use of procedures, such as oral hearings or perhaps some opportunity for questioning, that clearly go beyond what § 553 requires and could seriously hamper rulemaking. But it is also possible that, over time, courts and agencies might have come to general agreement on when additional procedures are needed and what form those procedures

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[152] For a classic accounts of this argument, *see* Jerry L. Mashaw & David L. Harfst, *The Struggle for Auto Safety* (1990); Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 Duke L.J. 1385, 1387-96, 1410-26 (1992). Others take a more positive view of the hard look doctrine. *See, e.g.,* Mark Seidenfeld, *Demystifying Deossification: Rethinking Recent Proposals to Modify Judicial Review of Notice and Comment Rulemaking*, 75 Tex. L. Rev. 483, 503-524 (1997); Patricia M. Wald, *Judicial Review in the Time of Cholera*, 49 Admin. L. Rev. 659, 662-63 (1997); *see also* Strauss et al., *supra* note 150, at 1017-26 (providing additional samplings of the debate).

[153] For arguments regarding the limited benefits from greater adversarial procedures in rulemakings that address complex scientific issues, *see* Thomas O. McGarity, *Substantive and Procedural Discretion in Administrative Resolution of Science Policy Questions: Regulating Carcinogens in EPA and OSHA*, 67 Geo. L.J. 729, 749-53, 776-80 (1979); Yellin, *supra* note 3, at 505-08, 552-53.

should take.[154] Indeed, one clear message of the D.C. Circuit's decision in *Vermont Yankee* is that agency acceptance of conclusory and unsubstantiated statements is likely to provoke courts to think greater procedural protections were necessary. Notably, in its opinion the D.C. Circuit stated that "the procedures the agency adopted in this case, if administered in a more sensitive, deliberate manner, might suffice."[155] Thus, had the hearing board subjected Dr. Pittman to more probing questions or the AEC been more acknowledging of the weaknesses of his testimony, perhaps the D.C. Circuit would have ruled differently.

Another effect of *Vermont Yankee* is that it precluded courts from engaging agencies in a more honest dialogue regarding the flaws courts perceive in agency decisionmaking and the benefits of different procedures. A court that believes an agency should have employed additional procedures now can only express its objections in substantive terms, perhaps leading the agency to misunderstand the real basis of the court's concerns.[156] In addition, rather than justify their procedural impositions (such as detailed notice requirements) on straightforward policy grounds, courts must now root these mandates in the terms of § 553, making it harder for agencies and others to refute the appropriateness of these measures. In this light, the main effect of *Vermont Yankee* was not to preclude courts from imposing procedural controls on agencies,

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[154] The evolution of procedural due process may be instructive here. In the procedural due process context, the Court has insisted on independently assessing the constitutional adequacy of procedures once it determines that a protected property interest is at stake. *See Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 539–41 (1985). Yet over time, the Court in practice has become increasingly deferential to governmental procedural choices, even when the only procedure supplied by the government is a post-deprivation judicial remedy. *See, e.g., Lujan v. G & G Fire Sprinklers, Ltd.*, 532 U.S. 189, 195-99 (2001); *Walters v. National Ass'n of Radiation Survivors*, 473 U.S. 305, 321-34 (1985).

[155] *NRDC v. NRC*, 547 F.2d 633, 653-54 (D.C. Cir. 1976).

[156] *See* Christopher F. Edley, Jr., *Administrative Law: Rethinking Judicial Control of Bureaucracy* 228 (1990).

but to force courts to do so *sub rosa*, with openness and rationality of judicial decisionmaking suffering in the process.

As for *Vermont Yankee*'s impact on nuclear power, both Vermont Yankee and Consumers Powers received their licenses. Other than occasional safety shutdowns, Vermont Yankee has been operating since 1972. However, Vermont Yankee faces a growing problem of what to do with its spent nuclear fuel, given the lack of any fuel reprocessing or long-term disposal facilities in the country. Vermont Yankee stores its spent fuel on-site, but space in its spent-fuel pool is now at a premium, and the plant was already given permission to re-rack the pool to higher density in 1997—absent that permission, it would have had to shut down. Sold to Entergy Nuclear Corporation in 2002, Vermont Yankee is also in the midst of a new licensing battle at the NRC as it seeks permission to expand its energy generating capacity.[157] The state of Vermont has intervened, choosing none other than Anthony Roisman to assist it in the proceedings.[158]

Consumers Powers was not so lucky. Its Midland Plant was plagued with construction problems, including the need to add a new foundation when the plant began to sink. These problems, combined with lengthy regulatory proceedings and Consumers Power's lack of capital, led to substantial delays in the plant's construction. Dow Chemical eventually pulled out of the project in 1983, when the plant was nearly ten years late and still unfinished. Consumers

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[157] *See* Matthew L. Wald, *Safety of Adding to Nuclear Plants' Capacity Is Questioned*, N.Y. Times, Jan. 26, 2004, at A15; David Gram, *Nuclear Waste: Meltdown of Vermont Harmony*, L.A. Times, May 24, 1987, at 26. For stories of occasional problems at Vermont Yankee, *see Nuclear Plant Faces NRC Fine in Vermont*, Wall St. J., Aug. 26, 1996, at B8; *Fine Proposed for Errors at Yankee Nuclear Plant*, N.Y. Times, Oct. 16, 1982, at A6.

[158] Roisman Interview, *supra* note 14.

ultimately stopped work on the plant one year later, with only one reactor near completion and the company already having spent $4.2 billion—over a ten-fold increase from the original estimated cost of $359 million for two reactors. In the end, the plant was reconfigured and came on-line in 1987 as a cogeneration facility that burns natural gas to produce steam for Dow as well as electricity. This allowed Consumers Powers to avoid bankruptcy, although Michigan ratepayers bore substantial costs as a result of the failed nuclear power effort.[159]

Most importantly, the problem of what to do about nuclear waste has continued to plague the nuclear power industry. Concerns about expanding access to plutonium led President Carter to impose a moratorium on licensing any fuel reprocessing plants in 1977.[160] While this removed the difficult issues of nuclear proliferation and how to secure plutonium produced by reprocessing from the nuclear waste debate, it heightened the need to develop a long-term storage facility. Spent nuclear fuel has continued to pile up in temporary storage pools at nuclear facilities across the country, with the total amount of such fuel being estimated at 49,000 metric tons in 2003.[161] But developing a long-term storage facility, and more specifically determining where to locate it, has been a major political minefield. Recognition of the growing nuclear waste problem led to enactment the Nuclear Waste Policy Act of 1982 (NWPA), which set up a

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[159] *See* John R. Emshwiller, *Nuclear Fallout: Utility Plant Delays in Michigan Spur Rift with Major Customer*, Wall St. J., Mar. 24, 1977, at 1; Ron Winslow, *Chain of Problems at Nuclear Site Threatens Consumers Power's Plan to Finish Facility*, Wall St. J., Oct. 28, 1983, at 33; *Michigan Utility Says It Will Close Midland Project*, Wall St. J., July 17, 1984, at 1; Thomas W. Lippman, *Rescue of a Failed Nuclear Plant; Mothballed for Years, Michigan Facility Operates on Natural Gas*, Wash. Post, Apr. 10, 1990, at D1.

[160] *See* 1 *Public Papers of the Presidents of the United States: Jimmy Carter* 581, 582-83 (1977); *see also* Frank N. von Hippel, *Plutonium and Reprocessing of Spent Nuclear Fuel*, Science, Sept. 28, 2001, at 2397 (describing changes in approach to reprocessing in subsequent administrations).

[161] *See Nuclear Energy Inst., Inc. v. EPA*, 373 F.3d 1251, 1258 (D.C. Cir. 2004).

detailed system for identification and approval of a site for a long-term disposal facility.[162] Ongoing political and legal battles over selecting a depository site proved expensive and time-consuming, and in 1987 Congress directed the federal agencies involved to focus their efforts on developing a facility at Yucca Mountain, Nevada, located on the federal government's Nevada Test Site.[163] Not surprisingly, the selection of Yucca Mountain was vigorously opposed by Nevada, as well as other states along the train routes on which nuclear waste would be transported. Over the ensuing years, Nevada (along with several environmental groups) brought numerous legal challenges, and in July 2004 one of these challenges proved successful before the D.C. Circuit. That court, again entering the nuclear waste fray, held that the EPA's use of a 10,000 year time period as the standard for assessing the facility's environmental impact was not a reasonable interpretation of the 1992 Energy Policy Act.[164]

Even prior to the D.C. Circuit's decision, Yucca Mountain was not expected to be operating before 2010 at the earliest, and the continuing delay in opening a waste depository means that the federal government owes nuclear plant operators millions, and potentially billions, to cover the costs for storing waste. While Congress could overturn the D.C. Circuit's decision, quick legislative action to get Yucca Mountain back on track seems unlikely, and the success of efforts to issue acceptable regulations is uncertain.[165] But what is clear is that, nearly 30 years

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[162] Pub. L. No. 97-425, 96 Stat. 2201 (1982) (codified as amended at 42 U.S.C. § 10101-10270).

[163] For criticism of NWPA and its subsequent amendments, *see* Gregory Jacob, *Site Unseen: The Politics of Siting a Nuclear Waste Repository* 95-163 (1990).

[164] *See Nuclear Energy Inst.*, 373 F.3d at 1258-62, 1273.

[165] *See* Matthew L. Wald, *U.S. Settles Nuclear Case over Burial of Waste*, N.Y. Times, Aug. 10, 2004, at A5; Matthew L. Wald, *Ruling on Nuclear Site Leaves Next Move to Congress*, N.Y. Times, July 14, 2004, at A20. On September 1st, 2004, the D.C. denied rehearing and

after the decision in *Vermont Yankee*, the courts are still making their voices heard on questions of nuclear waste disposal and nuclear policy.

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rehearing en banc, and the period for seeking certiorari at the Supreme Court expired without a petition being filed.