

## COMMENT

# RECENT DECISIONS CONCERNING THE DOE'S COMMERCIAL RADIOACTIVE WASTE DISPOSAL PROGRAM

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In enacting the Atomic Energy Act of 1954 (AEA), Congress surrendered the federal government's monopoly on the use of atomic energy and (for the first time) permitted private investment in, and ownership of, nuclear facilities. By enacting the AEA, Congress established the fundamental legal regime governing nuclear energy to this day. However, responsibility for the permanent disposal of high-level radioactive waste, in the form of Spent Nuclear Fuel (SNF) or otherwise, is the responsibility of the federal government.<sup>1</sup>

This responsibility was made statutory with the passage of the Nuclear Waste Policy Act of 1982 (NWPAA).<sup>2</sup> In particular, section 111(b)(2) notes one of the purposes of the NWPAA's "to establish the Federal responsibility, and a definite Federal policy, for the disposal of . . . [high-level radioactive] waste and spent fuel . . ."<sup>3</sup> In addition, the NWPAA provides a comprehensive program for the management and ultimate disposal of SNF generated by civilian nuclear power plants. Under the scheme established by Congress, utilities generating SNF are primarily responsible for interim storage prior to acceptance by the Department of Energy (DOE or De-

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1. In a nuclear power plant, nuclear fuel is contained in a nuclear reactor. The nuclear fuel produces heat by the process of nuclear fission; i.e., the splitting uranium-235 atoms. The fuel itself is contained in the nuclear reactor *core*. The core is enclosed within a container called the *reactor pressure vessel*. When the reactor is operating, water is pumped through the core to remove the heat generated by the fission process. This water, which is called *reactor coolant*, is pumped through the core. In one type of reactor, called a pressurized water reactor (PWR), the coolant then moves through pipes and into a *steam generator*. There, heat is transferred from the hot reactor coolant to a separate stream of water, causing the latter to boil. In a boiling water reactor (BWR), steam is produced through the boiling of the reactor coolant in the pressure vessel. The steam from the boiling water is then used to drive a turbine and generate electricity. The reactor coolant is pumped back into the reactor pressure vessel and through the core, repeating the cycle. A good overall discussion of both the practical technical aspects and regulatory framework of nuclear power can be found in 2 DAVID J. MUCHOW AND WILLIAM A. MOGEL, *ENERGY LAW AND TRANSACTIONS* §§ 54.01-17 (1997).

2. 42 U.S.C. §§ 10101-270 (1994).

3. 42 U.S.C. § 10131(b)(2) (1994).

partment).<sup>4</sup> However, in return for the payment of fees into a special account into the U.S. Treasury known as the Nuclear Waste Fund, the DOE is obligated to ultimately take and dispose of SNF in a geologic repository.<sup>5</sup>

THE *INDIANA MICHIGAN POWER CO.* AND *NORTHERN STATES POWER CO.* DECISIONS

Problems with the DOE's radioactive waste management and disposal program lead to two significant decisions by the D.C. Circuit of the U.S. Court of Appeals in a period of less than two years. The first decision, *Indiana Michigan Power Co. v. DOE*, dealt with the nature of the Department's obligation to commence accepting SNF from utilities by a certain date.<sup>6</sup> The second case, *Northern States Power Co. v. DOE*, handed down last fall, addressed whether or not the Department could excuse delay as being unavoidable, regardless of its obligation to commence accepting spent fuel by a deadline.<sup>7</sup>

A. *Indiana Michigan Power Co. v. DOE*

The NWPA establishes a framework for contractual agreements between utilities and the DOE the acceptance and disposal of SNF by the Department. In particular, the NWPA contains two important prescriptions concerning provisions of the Standard Contract governing rights and obligations of the parties. The first, sometimes referred to in the *Indiana Michigan Power* decision as "subsection (A)," requires the Standard Contract to provide that: "... following commencement of operation of a repository, the Secretary shall take title to the high-level radioactive waste or spent nuclear fuel involved as expeditiously as practicable upon the request of the generator or owner of such waste or spent fuel."<sup>8</sup>

The second provision, sometimes referred to as "subsection (B)," and directs that the Standard Contract specify that: "... in return for the payment of fees established by this section, the Secretary, beginning not later than January 31, 1998, will dispose of the high-level radioactive waste or

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4. 42 U.S.C. § 10131(a)(5) (1994).

5. 42 U.S.C. § 10222(a) (1994). There is a broad international consensus that high-level radioactive materials can be disposed of safely in mined geologic repositories. Such geologic disposal has been and continues to be U.S. policy and is a central tenant of the NWPA. See U.S. NUCLEAR WASTE TECHNICAL REVISION BOARD, 1997 FINDINGS AND RECOMMENDATIONS 1. In a geologic repository, a combination of engineered and natural barriers isolates the waste from the environment accessible to humans for many thousands of years. During that period, radioactive decay would reduce the hazard of the waste and delay its transport so that any releases to the accessible environment would be below regulatory limits. *Id.* The NWPA provides for site-characterization studies of Yucca Mountain in Nevada, as a possible repository location. 42 U.S.C. § 10133(a) (1994). Studies of the Yucca Mountain have dominated the DOE's activities related to SNF disposal since 1987. U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD, 1997 FINDINGS AND RECOMMENDATIONS 1 (1998).

6. *Indiana Michigan Power Co. v. United States Dep't of Energy*, 88 F.3d 1272 (D.C. Cir. 1997).

7. *Northern States Power Co. v. United States Dep't of Energy*, 128 F.3d 754 (D.C. Cir. 1996) *petitions for cert. filed*, 67 U.S.L.W. 3113 (U.S. Aug. 3, 1998) (No. 98-225) and 67 U.S.L.W. 2183 (Sep. 1, 1998) (No. 98-384).

8. 42 U.S.C. § 10222(a)(5)(A) (1994).

spent nuclear fuel involved as provided in this subtitle.”<sup>9</sup>

The final Standard Contract, adopted by the DOE in 1983 following notice and comment rulemaking,<sup>10</sup> provides that, “[t]he services to be provided by DOE under this contract shall begin after commencement of facility operations, not later than January 31, 1998 and shall continue until such time as all SNF . . . from the civilian nuclear power reactors . . . has been disposed of.”<sup>11</sup>

Over time, following separate signings of the Standard Contract, utilities became increasingly concerned about the DOE’s ability to meet its obligations. Progress with the repository program was slow. Furthermore, the DOE failed to establish a monitored retrievable storage (MRS) facility for interim storage as provided in the NWPA.<sup>12</sup> Concern was raised considerably when the Secretary of Energy, Hazel O’Leary, stated in an internal DOE memorandum, dated February 18, 1994, that attainment of the objective of accepting spent fuel by 1998 is not a likely possibility.<sup>13</sup>

At about the same time, the issue of the DOE’s views concerning its own legal obligations under the NWPA, or lack of them, became disturbing. The DOE was specifically requested to address its responsibilities under the NWPA and the January 31, 1998 deadline. In response, the DOE’s Director of the Office of Civilian Radioactive Waste Management stated in a letter that the DOE

does not have a clear legal obligation under the [NWPA] to accept [SNF] absent an operational repository or other facility. . . . [Similarly, the DOE Secretary O’Leary indicated that,] while at the time NWPA was enacted the DOE envisioned that it would have a waste management facility in operation and prepared to begin acceptance . . . in 1998, [the] DOE subsequently concluded it did not have a clear legal obligation under the NWPA to accept SNF absent an operational repository or other facility constructed under the [NWPA].<sup>14</sup>

On May 25, 1995, the DOE addressed the issue formally by publishing a Notice of Inquiry (NOI) to initiate a proceeding and consider the views of affected parties concerning the continued storage of SNF by utilities at nuclear power plant sites beyond 1998.<sup>15</sup> The NOI also presented DOE’s preliminary legal finding that it had no statutory obligation to accept SNF beginning in 1998 in the absence of an operational repository or other facility constructed under the NWPA.<sup>16</sup> The DOE noted, however, that the

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9. 42 U.S.C. § 10222(a)(5)(B) (1994).

10. Standard Contract for Disposal of Spent Nuclear Fuel and/or High Level Radioactive Waste, 48 Fed. Reg. 16,590 (1983) (codified at 10 C.F.R. § 961.11).

11. Standard Contract for Disposal of Spent Nuclear Fuel and/or High Level Radioactive Waste, 10 C.F.R. § 961.11 art. II.

12. 42 U.S.C. §§ 10161-69, 10241-51 (1994).

13. *Indiana Michigan Power Co.*, 88 F.3d at 1274.

14. *Id.*

15. Notice of Inquiry, 59 Fed. Reg. 27,007 (1994).

16. *Id.* at 27,008.

terms of the Standard Contract might have created such an expectation.<sup>17</sup>

In May of the following year, the DOE finally concluded the NOI proceeding with the publication of its "Final Interpretation."<sup>18</sup> In the Final Interpretation, the DOE determined, consistent with its preliminary finding, that, in the absence of either a repository or interim storage facility constructed under the NWPA, it had no unconditional statutory or contractual obligation to begin accepting SNF on or before January 31, 1998. Utilities, states, and state agencies promptly filed suit challenging the DOE's Final Interpretation.

The fundamental issue addressed in *Indiana Michigan Power* was the DOE's contention that the language of subsection (B) did not, in fact, require it to begin disposing of SNF by January 31, 1998. Rather, the agency contended the obligation was conditioned on the availability of either a geologic repository or other facility authorized, constructed, and licensed in accordance with the NWPA.<sup>19</sup> In reviewing the agency's construction, the court followed the familiar, two-step statutory analysis established in *Chevron*.<sup>20</sup> Ultimately, the court found that the DOE's position did not survive the first step of the *Chevron* analysis. In particular, the court rejected the DOE's argument that the obligation of subsection (B), to accept spent fuel no later than January 31, 1998, was tied to a condition precedent, based on subsection (A), of repository operation. The court's determination was:

In [subsection] (B), Congress . . . directed the beginning of the Secretary's duty as "not later than January 31, 1998," *without qualification or condition*. The *only* limitation placed on the Secretary's duties under (B) is that that duty is "in return for the payment of fees established by this section." The Department's treatment of this statute is not an interpretation but a rewrite. It not only blue-pencils out the phrase "not later than January 31, 1998," but destroys the quid pro quo created by Congress. It does not survive the first step of the *Chevron* analysis . . . Under the plain language of the statute, the utilities anticipated paying fees "in return for [which] the Secretary" had a commensurate duty. She was to begin disposing of the high-level radioactive waste or SNF by a day certain. The Secretary now contends that the payment of fees was for nothing. At oral argument, one of the panel compared the government's position to a Yiddish saying: "Here is air; give me money," and asked counsel for the Department to distinguish the Secretary's position. He found no way to do so, nor have we.<sup>21</sup>

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17. *Id.*

18. *Department of Energy Final Interpretation of Nuclear Waste Acceptance Issues*, 60 Fed. Reg. 21,793 (1995).

19. See *Indiana Michigan Power Co.*, 88 F.3d at 1274-75.

20. *Chevron, U.S.A., Inc. v. Natural Resource Defense Council, Inc.*, 467 U.S. 837 (1984). The court detailed its analysis:

First, we ask whether Congress has spoken unambiguously to the question at hand. If it has, then our duty is clear: "We must follow that language and give it effect. If not, we consider the agency's action under the second step of *Chevron*, deferring to the agency's interpretation if it is "reasonable and consistent with the statute's purpose."

*Indiana Michigan Power Co.*, 88 F.3d at 1274 (citations omitted).

21. *Indiana Michigan Power Co.*, 88 F.3d at 1276 (emphasis added).

The court concluded: “[W]e hold that section 302(a)(5)(B) [of the NWPA, or “subsection(B)”] creates an obligation in the DOE, reciprocal to the utilities’ obligation to pay to start disposing of the SNF no later than January 31, 1998.”<sup>22</sup> Beyond its determination concerning the DOE’s obligation, however, the court found it “premature to determine the appropriate remedy,” stating that, as of the time of its decision, “DOE has not yet faulted upon either its statutory or contractual obligation.”<sup>23</sup> The court concluded by vacating the DOE’s Final Interpretation and returning the matter to the agency for further action consistent with the court’s decision, thus leaving the matter for another day.

### *B. Northern States Power Co. v. DOE*

Despite the court’s opinion in *Indiana Michigan Power*, the DOE did not move to develop an aggressive plan to meet the January 31, 1998 deadline. The DOE responded by announcing it anticipated that it would be

unable to begin acceptance of spent nuclear fuel for disposal in a repository or interim storage facility by January 31, 1998. . . . [The Department recognized that] utilities will be affected by the Department’s delay and by the uncertainty as to when . . . [it] will be able to begin spent fuel acceptance, . . . [and cordially invited the views of contract holders on how the delay could best be accommodated].<sup>24</sup>

On January 31, 1997, one year before the 1998 deadline, utilities and numerous state entities separately petitioned the D.C. Circuit for a writ of mandamus, seeking to compel DOE compliance with the *Indiana Michigan Power* decision. In addition, petitioners requested authority to escrow Nuclear Waste Fund fee payments unless and until the DOE met its obligation to dispose of SNF. They also requested that the court prohibit the Department from taking any punitive action toward those suspending payments into the Fund.<sup>25</sup>

Following the initiation of the lawsuits, on June 3, 1997, the DOE responded to comments submitted by contract holders as a result of its earlier invitation for views on how the Department’s delay in accepting spent fuel might best be accommodated.<sup>26</sup> As summarized by the court in the *Northern States Power* decision, the Department recognized the requirement of subsection (B), holding that “contracts shall provide the Department to begin to dispose of spent fuel not later than January 31, 1998.”<sup>27</sup> The DOE expressed its belief, however, that the Standard Contract adopted by the Department pursuant to the NWPA specified the available

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22. *Id.*

23. *Id.* at 1277.

24. Letter from Robert R. Nordhaus, General Counsel, Department of Energy, to Michael A. Bauser (Jan. 13, 1997).

25. See *Northern States Power Co.*, 128 F.3d at 757.

26. See Sample Letter from Beth A. Thomasoni, Contracting Officer, Department of Energy, to Contract Holders. See also *Northern States Power Co.*, 128 F. 3d at 757.

27. *Northern States Power Co.*, 128 F. 3d at 757.

remedies in the event the deadline was missed. The DOE asserted that under Article IX of the Contract, the Department was "not obligated to provide a financial remedy for the delay, because the delay, in the Department's estimation was 'unavoidable.'"<sup>28</sup>

Following a discussion of developments since its *Indiana Michigan Power* decision, and expressing dismay at the DOE's lack of a constructive response,<sup>29</sup> the court noted that the remedy of mandamus is "a drastic one."<sup>30</sup> The court enumerated the appropriate conditions for the application of such a writ. "Mandamus is proper," said the court, "only if '(1) the plaintiff has a clear right to relief; (2) the defendant has a clear duty to act; and (3) there is no other adequate remedy available to the plaintiff.'"<sup>31</sup>

The court then found that the petitioners had established a clear right to relief. The court noted the finding in *Indiana Michigan Power*, that the payment of fees into the Nuclear Waste Fund is the only limitation on the Secretary of Energy's duties in the NWPA. While the owners and generators of SNF "have dutifully complied with the NWPA, pouring billions of dollars of payments into the Fund with the expectation that the DOE would live up to its end of the bargain," said the court, "[t]he Department on the other hand, has tersely informed the parties that it 'will be unable begin acceptance of spent nuclear fuel for disposal in a repository or interim storage facility by January 31, 1998.'"<sup>32</sup> The utility petitioners' "full compliance with the requirements of the NWPA, taken in conjunction with the DOE's failure to perform its reciprocal duties," stated the court, "compels the conclusion that petitioners have established a clear right to relief in the case."<sup>33</sup>

The court then focused on the second requirement for a writ of mandamus. It found the DOE's obligations were clear.<sup>34</sup> The court noted in its holding in *Indiana Michigan Power* that the DOE's earlier decision, that its obligations under the NWPA were contingent upon the existence of a repository or interim storage facility, was inconsistent with the text of the NWPA "which clearly demonstrates a Congressional intent that the Department assumed a contractual obligation to perform by the 1998 deadline, 'without qualification or condition.'"<sup>35</sup> The court continued:

[The] DOE's duty to take the materials by the 1998 deadline is also an

28. *Id.*

29. The court said:

After issuing our decision in *Indiana Michigan*, we would have expected that the Department would proceed as if it had just been told that it had an unconditional obligation to take the nuclear materials by the January 31, 1998 deadline. Not so. Quite to the contrary, the Department informed the utilities and the states that it would be unable to comply with the statutory deadline that this court had just reaffirmed . . . . *Id.*

30. *Northern States Power Co.*, 128 F.3d at 758.

31. *Id.* (citation omitted).

32. *Northern States Power Co.*, 128 F.3d at 758 (citation omitted).

33. *Northern States Power Co.*, 128 F.3d at 758.

34. *Id.*

35. *Northern States Power Co.*, 128 F.3d at 758 (citation omitted).

integral part of the Standard Contract, which provides that the Department "shall begin" disposing of the SNF by January 31, 1998. 10 C.F.R. § 961.11, [a]rt. II. The contractual obligations created consistently with the statutory contemplation leave no room for the DOE to argue that it does not have a clear duty to take the SNF from the owners and generators by the deadline imposed by Congress.<sup>36</sup>

The court, however, found the third condition less than fully satisfied. Accordingly, it declined to issue the broad writ of mandamus sought by petitioners "because they are presented with another potentially adequate remedy."<sup>37</sup> Turning to Article IX of the contract, upon which the DOE had attempted to excuse its delay as being "avoidable" in the June 3, 1997 letter,<sup>38</sup> the court stated that, while the NWPA does not prescribe a particular remedy in the event of the Department's failure to perform on time, the Standard Contract outlines how the parties are to proceed should one be unable to fulfill its obligations in a timely manner. The court observed under Article IX that unavoidable delays are treated differently than avoidable delays. As provided in the Contract, a failure to perform is considered "unavoidable" only if such failure arises out of causes beyond the control and without the fault or negligence of the party failing to perform. If a party's delay is determined to be unavoidable that party is not liable for damages. By contrast, "avoidable" delay results when circumstances within reasonable control of the delinquent party are involved. "If a party's delay is avoidable," noted the court, "the charges and schedules in the contract must be equitably adjusted to reflect additional costs incurred by the other party."<sup>39</sup>

Within this context, the court remained unconvinced that petitioners had made a sufficient showing that the scheme provided under the Standard Contract was inadequate to deal with the DOE delay in accepting SNF. The court concluded:

Petitioners have suggested that the contractual processes are inadequate, claiming that they will "suffer additional billions of dollars in additional costs if DOE fails to meet its January 1998 obligation," . . . and that they will not be able to recover these costs in the contract proceedings because the Department is excusing its own default. . . . Such costs may in fact ensue if [the] DOE fails to perform on time, but there is no reason to believe that these additional expenses will not be taken into account if the contractual processes operate as Congress intended. . . . Accordingly, we conclude that petitioners must pursue the remedies provided in the Standard Contract in the event that DOE does not perform its duty to dispose of the SNF by January 31, 1998.<sup>40</sup>

Nevertheless, the court found a more limited writ of mandamus was required. As stated by the court, "[g]iven [the] DOE's repeated attempts to excuse its delay on the ground that it lacks an operational repository or

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36. *Id.* at 758-59.

37. *Northern States Power Co.*, 128 F.3d at 759.

38. *See supra* notes 26-28, and accompanying text.

39. *Northern States Power Co.*, 128 F. 3d at 759.

40. *Id.*

interim storage facility, we find it appropriate to issue a writ of mandamus to correct the Department's misapprehension of our prior ruling."<sup>41</sup> The court then continued:

Accordingly, we order [the] DOE to proceed with contractual remedies in a manner consistent with NWPAs command that it undertake an unconditional obligation to begin disposal of the SNF by January 31, 1998. More specifically, we preclude [the] DOE from concluding that its delay is unavoidable on the ground that it has not yet prepared a permanent repository or that it has no authority to provide storage in the interim.<sup>42</sup>

On August 3 and September 1, 1998, states and federal government, respectively, petitioned the Supreme Court of the United States for review of *Northern States Power*.<sup>43</sup> The state petition is based on the position that the *Northern States Power* court improperly restricted review by failing to fully remedy what is characterized as "[the] DOE's refusal to comply with its statutory duty to dispose nuclear waste."<sup>44</sup> In the view of the state petitioners, by not going further in *Northern States Power* and providing a remedy, the court failed to properly discharge its role to review the DOE action and inaction under section 119 of the NWPAs.<sup>45</sup>

The government petition, on the other hand, takes the position that the court, in *Northern States Power*, exceeded its authority. In particular, the petition raises the specific question of "[w]hether the Court of Appeals' order prohibiting [the] DOE from invoking the 'unavoidable delays' provision of the Standard Contract intrudes impermissibly upon the jurisdiction of the Court of Federal Claims, which has exclusive authority under the Tucker Act . . . to adjudicate actions founded on a contract with the United States."<sup>46</sup>

Since the *Northern States Power* decision, eleven utilities have filed suits in the U.S. Court of Federal Claims seeking, in the aggregate, more than \$4 billion in damages.<sup>47</sup> The magnitude of government liability is such that the matter has even been reported in the popular press. For example, in a recent front-page story, *The Washington Post* reported predictions that all 103 of the nation's nuclear plants will eventually sue for damages for a total of between \$31 billion and \$53 billion.<sup>48</sup>

Nuclear waste disposal is viewed as an "Achilles' heel" to nuclear energy.<sup>49</sup> Yet, action is necessary in order to assure that the Department of

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41. *Id.* at 760.

42. *Id.*

43. *Northern States Power Co.*, 128 F. 3d. 754. The petitions related not only to the Nov. 14, 1997 decision itself, but also to a subsequent May 5, 1998 order denying post-decisional requests for relief.

44. Petition for Certiorari at i, *Northern States Power Co. v. United States Dep't of Energy*, 128 F. 3d. 754 (D.C. Cir. 1996) (No. 98-225).

45. 42 U.S.C. § 10139 (1994).

46. *United States Dep't of Energy's Petition for Certiorari at i, Northern States Power Co. v. United States Dep't of Energy*, 128 F. 3d. 754 (D.C. Cir. 1996) (No. 98-384).

47. *Id.* at 26.

48. Michael Grunwald, *Lawsuit Surge May Cost U.S. Billions*, WASH. POST, Aug. 10, 1998, at A1.

49. Marsha Burton and Lynne Oliver, *Shut Down: Can nuclear plants survive deregulation? The*

Energy, and more fundamentally the federal government, discharges its obligation to accept, manage, and ultimately dispose of used fuel from nuclear power plants. This may require new legislation to significantly modify the DOE program currently prescribed in the Nuclear Waste Policy Act. Continued government failure to meet its obligations, however, poses the threat of serious economic consequences, and carries with it the potential for significant, adverse energy policy and environmental impacts as well.

