## NEPA Compliance and the Adoption of an Environmental Impact Statement by a Regulatory Agency

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## Introduction

Federal regulatory agencies have responsibilities under the National Environmental Policy Act of 1969 (NEPA)<sup>1</sup> at multiple stages of their regulatory responsibilities. This includes the development of regulations and when conducting their oversight responsibilities. This paper reviews the roles of regulatory agencies (the United States Nuclear Regulatory Commission (NRC) and the United States Environmental Protection Agency (EPA)) related to the disposal of high-level radioactive waste, spent nuclear fuel, and transuranic waste under NEPA and as modified by other laws. The focus of this paper is on how the NRC looked at how to address its responsibilities, with a brief review of the EPA to provide a contrast in how the two regulatory agencies comply with NEPA.

The development of a geologic repository for the disposal of high-level radioactive waste and spent nuclear fuel (HLW) is the responsibility of the DOE; this has included the site characterization and license application for a proposed repository at Yucca Mountain, Nevada. The development of a geologic repository for the disposal of transuranic waste is the responsibility of the DOE, which has resulted in the development of the Waste Isolation Pilot Plant (WIPP). The EPA has the responsibility for developing generally applicable environmental standards for the geologic disposal of these materials. The NRC is responsible for developing the implementing regulations and the licensing responsibility for the repository for the disposal of HLW (e.g., Yucca Mountain). The EPA has the responsibility for developing the implementing regulations (certification criteria) and the regulatory certification of WIPP.

These projects involve major Federal actions with a significant overlap between Federal agencies. Subsequent to NEPA, laws have been promulgated that have modified how the regulatory agencies comply with NEPA for these specific activities. Consequently, the NRC and the EPA have had to adjust how they fulfill their NEPA responsibilities in light of these changes. Major Federal actions by the regulatory agencies include the development of regulations and regulatory decisions (e.g., certification, granting a construction authorization, or granting a license for the receipt and disposal of HLW).

## The NEPA Responsibilities of the NRC and the EPA in the Disposal of HLW (Yucca Mountain, Nevada)

The DOE is responsible for the site characterization and development of a deep geologic repository for the disposal of high-level radioactive waste and spent nuclear fuel. The Nuclear Waste Policy Act (NWPA) of 1982,<sup>2</sup> amendments to the Nuclear Waste Policy Act,<sup>3</sup> and, later, the Energy Policy Act of 1992 <sup>4</sup> established responsibilities for the DOE, the EPA, and the NRC for the regulation of HLW disposal and the development of a geologic repository. The DOE was responsible for characterizing the Yucca Mountain site; making interim decisions, such as the site suitability decision and the site sufficiency determination; and, if approved, developing the geologic repository. The NRC was given the responsibility for promulgating the implementing regulations and licensing responsibility. The NRC was also given responsibilities during the period of site characterization. Under the Reorganization Plan No. 3 of 1970,<sup>5</sup> the EPA was given the responsibility for promulgating generally applicable environmental regulations for the protection of the environment from radioactive material.

Section 102 of NEPA<sup>6</sup> requires the responsible Federal official to consult and obtain the comments of any Federal agency that has jurisdiction by law or special expertise with respect to the environmental impacts involved with major Federal actions significantly affecting the quality of the human environment.

The NRC developed its regulations to implement Section 102 of NEPA. These regulations were first promulgated in 1974<sup>7</sup> at Title 10 *Code of Federal Regulations* (CFR) Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." The Council on Environmental Quality published their regulations implementing NEPA, 40 CFR Part 1500, "Regulations for Implementing the Provisions of the National Environmental Policy Act," on November 28, 1978. On March 12, 1984, the NRC revised its regulations at 10 CFR Part 51 to develop regulations for the implementation of Section 102 of NEPA that voluntarily consider the CEQ regulations. The CEQ reviewed the NRC's draft final procedures for compliance with NEPA, which amended the NRC requirements at 10 CFR Part 51. The CEQ informed the NRC that the CEQ had determined that the NRC's procedures addressed the necessary sections of the CEQ regulations as required by 40 CFR 1507.3, "Agency procedures," which allow agencies to adopt their procedures after publishing their draft

procedures for public comment and after a review by the CEQ as required by NEPA<sup>11</sup> and the CEQ requirements.

Under the NWPA, the DOE has the primary responsibility for evaluating the environmental impacts of the geologic repository at Yucca Mountain, Nevada. Under NEPA, NRC activities that qualify as major Federal actions that may significantly affect the human environment would require the development of an EIS. The development of regulations for HLW disposal and the licensing of a geologic repository would qualify as major Federal actions. However, section 121 of the NWPA<sup>12</sup> established that neither the promulgation of the generally applicable environmental standards nor the promulgation of the implementing criteria would require the development of an EIS. In addition, they would not require any environmental review under subparagraphs (E) (consideration of alternatives) or (F) (international cooperation) of Section 102(2) of NEPA. <sup>13</sup> The NRC regulatory decisions on whether to grant an authorization to allow the DOE to begin constructing the repository and, later, whether to grant a license authorizing the DOE to receive and possess HLW for disposal in a repository would be major Federal actions under NEPA. Consequently, the NRC would normally be required to prepare an EIS for these decisions.

The NRC regulations for a repository at Yucca Mountain — 10 CFR Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," and later 10 CFR Part 63, "Disposal of High-Level Radioactive Wastes in a Geologic Repository at Yucca Mountain, Nevada" — include Commission decisions on whether to issue a construction authorization and a license for receiving and disposing high-level radioactive waste at the repository, which may include conditions that the NRC may place on the DOE when granting the license. Under NEPA, the NRC would be required to comply with NEPA and develop an environmental impact statement. The NWPA specifies that any DOE EIS prepared in connection with a repository that is proposed to be constructed under Title I of the NWPA, "Disposal and Storage of High-Level Radioactive Waste, Spent Nuclear Fuel, and Low-Level Radioactive Waste" is, to the extent practicable, to be adopted by the NRC for its decisions on whether to grant the construction authorization and issue a license. <sup>14</sup> The NWPA addresses the NRC's compliance with NEPA by establishing that, to the extent that the EIS is adopted by the NRC, the adoption would also satisfy the NRC's responsibilities under NEPA.

The DOE is required by the NWPA to make a site recommendation to the President of the United States. The NWPA declares that the site characterization activities are to be considered a preliminary decision making activity and shall not require the development of an environmental impact statement. As specified in Section 114(f) of the NWPA, the DOE site recommendation is considered to be a major Federal action significantly affecting the quality of the human environment. Consequently, the DOE was required to prepare an EIS to support its site recommendation and which was required to accompany the site recommendation.

Prior to the NWPA, the NRC's regulations required the DOE to characterize multiple sites, so as to allow the NRC to consider alternatives as part of the NRC's responsibilities under NEPA. The NRC also required the DOE to submit an environmental report with its license application; the environmental report would provide information that the NRC would use during its preparation of an EIS.<sup>17</sup> The NRC would then follow its procedures for developing an environmental impact statement; if the DOE were to submit an EIS, the NRC would not have to use the decisions made by the DOE. The EIS would also be subject to the NRC's licensing process.<sup>18</sup>

The NWPA included language that indicated that nothing in the Act should be considered as changing the NRC's licensing requirements. <sup>19</sup> The NWPA changed the timing and procedures for the site characterization, recommendation, and decision processes and added a provision for the judicial review of the DOE's EIS. The NWPA included provisions that changed what the DOE was required to consider as part of its NEPA responsibilities, such as the need for a repository. <sup>20</sup> A provision of the NWPA instructs the NRC to adopt the DOE's EIS to the extent practicable; additional provisions provide for Presidential and Congressional review of the DOE's decision to recommend a site for a repository and the judicial review of the DOE's EIS. <sup>21</sup> In a previous Commission decision, the NRC had previously stated that, under some conditions, the Commission believed that substantial weight can be given to the a responsible authority's approval of a site or project when conducting its own NEPA analysis. <sup>22</sup> This contributed to the NRC's conclusion that the NWPA narrowed the scope of its NEPA responsibilities. <sup>23</sup>

The NRC recognized the primary role that the DOE had in evaluating the environmental impacts and interpreted the NRC's role under the NWPA as being focused on health and safety issues. The NRC conducted a rulemaking where the NRC established it role and process for addressing its NEPA responsibilities as influenced by the NWPA. In its final rule, the NRC

addressed comments that required it to respond to its interpretation of the NWPA language that the NRC is to adopt the DOE EIS to the extent practicable" and whether it is appropriate to be a cooperating agency. The NRC's proposed rule did not address how the NRC would address adopting an EIS for a negotiator-selected site. In response to a comment on the proposed rule, the NRC made changes to address this possibility in its final amendments to 10 CFR Part 51. <sup>24</sup>

The Nuclear Waste Policy Amendments Act of 1987 (NWPAA)<sup>25</sup> restricted site characterization activities to Yucca Mountain, Nevada, and discontinued the site characterization activities at all other sites. The NWPAA also restricted the required scope of the DOE's EIS by eliminating the requirement to consider alternative sites to Yucca Mountain, Nevada and established that the NRC would not need to consider alternative sites to Yucca Mountain.<sup>26</sup>

The NRC relied on a review of the legislative history to the NWPA and the provisions of Section 119 of the NWPA, which establishes the framework for the judicial review of agency actions and deadlines for requesting the judicial review.<sup>27</sup> The DOE was required to include NRC comments at certain times in the process of recommending a site. This included NRC comments on the extent to which the DOE's site characterization analysis and waste form proposal seem to be sufficient for including in a license application and preliminary NRC comments on the DOE's EIS.<sup>28</sup> The NRC inferred from the detailed judicial and legislative review provisions that the intent of Congress was for the NRC to not reopen issues that have already been reviewed.<sup>29</sup>

The responsibilities of a cooperating agency are addressed in 40 CFR 1501.6, "Cooperating agencies." Cooperating agencies are required to:

- 1) participate in the NEPA process at the earliest possible time,
- 2) participate in the scoping process, and
- 3) be responsible for developing information and analyses upon request of the lead agency.

The NRC took has taken the position of being a "commenting agency" on the DOE's EIS. The foundation of this approach is to be consistent with the requirements of 40 CFR Section 1503.2, "duty to comment," which identifies the responsibility of Federal agencies with "jurisdiction by law or special expertise" to comment on EISs within their jurisdiction. The NRC procedures for compliance with NEPA at 10 CFR Part 51 address, with limited exceptions,

those activities where the NRC has the lead responsibility. Consequently, the NRC procedures at 10 CFR Part 51 do not address its responsibilities (e.g., being a cooperating agency) with respect to EIS developed by other Federal agencies. However, the NRC has a policy of commenting on draft EISs prepared by other Federal Agencies; this is specifically addressed in the NRC regulations implementing NEPA.<sup>30</sup>

The NWPA requires the NRC to adopt the DOE's EIS, to the extent that it is practicable. The NRC conducted a rulemaking to amend 10 CFR Part 51 to establish the standard that the NRC would use to adopt DOE's EIS for Yucca Mountain. The standard adopted by the NRC<sup>31</sup> was that the NRC would find it practicable to adopt the EIS for a Yucca Mountain repository, unless:

- 1) the action [to be taken] by the Commission differs from that proposed by the DOE in its license application (10 CFR 51.109(c)(1)), provided that the difference may significantly affect the quality of the human environment, or
- 2) there is significant and substantial new information or considerations that would render the EIS inadequate (10 CFR 51.109(c)(2)).

At the time that the NRC was developing the requirements for adopting the DOE's EIS for Yucca Mountain, the NRC also had to consider the potential that a different site could be selected. Such a site might arise through the negotiated site provisions of the NWPA.<sup>32</sup> Section 407(c) of the NWPA requires the NRC to adopt the EIS prepared by the DOE for a site characterized under Title IV of the NWPA, "Nuclear Waste Negotiator," to the extent practicable. However, the NWPA also specifies that the adoption by the NRC shall be in accordance with 40 CFR 1506.3.<sup>33</sup> The NRC would need to follow its customary practices for adopting an EIS, which would include being consistent with the CEQ requirements at 40 CFR 1506.3, "adoption." However, by remaining a "commenting agency" and not participating as a cooperating agency, the NRC would not be able to take advantage of 40 CFR 1506.3(c), which allows a cooperating agency to adopt an EIS without recirculating it, if after an independent review of the EIS, the cooperating agency concludes that its comments and suggestions have been satisfied.<sup>34</sup>

The DOE suggested that the NRC's role was to be a cooperating agency, which has been appropriate for other instances where one agency had a regulatory oversight role over another.

When addressing the DOE comment made during the NRC rulemaking to update its regulations for complying with NEPA to reflect that amendments to the Nuclear Waste Policy Act, the NRC acknowledged that it may be appropriate for the regulatory agency to be a cooperating agency in the development of an EIS being developed by the agency responsible for the project. However, the NRC interpreted the NWPA as limiting its responsibilities, including limiting the NRC's balancing of environmental considerations during its licensing activities.<sup>35</sup>

The many years of site characterization encompassed the time during which the DOE was developing the EIS. During the site characterization phase of the project, the NRC and the DOE had a significant amount of interaction. The comments and feedback that the NRC provided during this phase of the project addressed aspects of the DOE work in areas where the NRC has special expertise. This allowed the NRC to provide a constructive role as a commenting agency as envisioned in the response to the DOE suggestion that the NRC act as a cooperating agency. By participating as a "commenting agency," the NRC did establish some distance between itself and the DOE on a highly contentious project. Maintaining this independence has added value, because the NRC was created when the promotional and regulatory roles of the Atomic Energy Commission were separated. Although the NRC did not participate in the development of the EIS and had a focus on issues pertaining to radiological health and safety, the NRC's role as a "commenting agency" still included significant involvement on issues that the DOE had to consider in the EIS.

The conditions for adoption of an EIS under Title I of the NWPA, "Disposal and Storage of High-Level Radioactive Waste, Spent Nuclear Fuel, and Low-Level Radioactive Waste" are the conditions that would require a supplemental EIS (40 CFR 1502.9(c)), which require agencies to supplement the EIS, if:

- 1) there are substantial changes in the proposed action that are relevant to the environmental concerns, or
- 2) there are significant new circumstances or information relevant to the environmental concerns and bearing on the proposed action or its impact.

The first condition could occur if the NRC were to impose licensing conditions on the DOE, provided that they also meet the significance portion of the criterion. The license conditions would need to be substantially different from what the DOE had considered in its EIS. In

addition, the license conditions would have to have the potential to significantly affect the quality of the human environment. The second situation matches the condition where the DOE would be expected to develop a supplemental EIS pursuant to 40 CFR 1502.9(c)(ii); although the NRC's expectation was that the DOE would supplement its EIS, it was envisioned that there could be circumstances where the NRC would need to prepare its own supplement.

Comments from both the State of Nevada and the Council on Environmental Quality addressed the NRC's interpretation of its responsibility when adopting the DOE's EIS. The State of Nevada commented that where a major federal action involves two or more federal agencies, each agency must evaluate the environmental consequences of the entire project and make its own, independent determination. The State of Nevada's view was that the NRC's responsibilities under NEPA for a repository at Yucca Mountain were not changed by the NWPA and that the NRC would need to treat the DOE EIS the same as the NRC treats other EISs in fulfilling its responsibilities.<sup>37</sup> The Council on Environmental Quality commented that "to the extent practicable" would mean that the NRC would adopt some, or all, of the DOE's EIS to avoid unnecessary duplication; this adoption would be made after the NRC conducted its own evaluation of the DOE's EIS.<sup>38</sup>

The NRC relied on its review of the legislative history of the NWPA, which the NRC discussed in detail in its Statements of Consideration (or preamble) to the proposed rule.<sup>39</sup> The NRC's interpretation of the NWPA is that it did modify the NRC's responsibility under NEPA. As the legislation was being considered in the House of Representatives, there were changes made to the language in the resolution that the NRC interpreted as modifying its responsibilities under NEPA; these changes included the need to consider alternate sites and the timing of the environmental assessment.<sup>40</sup>

The NWPA includes provisions that limit the NRC's role at the time that the EIS is being developed. Section 114 of the NWPA<sup>41</sup> requires the DOE to submit a site recommendation to the President of the United States. The site recommendation is to include the final EIS for the Yucca Mountain site, including comments on the EIS from the NRC. Also, the site recommendation is to be accompanied by preliminary comments of the NRC on the extent to which the at-depth site characterization analysis and the waste form proposal for the site appear to be sufficient for including in a license application. The license application would then follow Presidential action on the recommendation. Consequently, it was envisioned that the EIS would

first be submitted in support of an agency decision that would not involve an NRC decision; it would initially be provided to the President and not to the NRC for action. The DOE's EIS was seen as being subject to Congressional and judicial review before the EIS would be submitted to the NRC as part of an application for a license or construction authorization. This provided separation between the completion of the DOE's EIS and the NRC's licensing process and had the potential for defects in the EIS to be known, before the NRC evaluated the DOE's EIS for adoption.

The NRC had experience with a parallel case, which involved NRC regulations developed pursuant to the Uranium Mill Tailings Radiation Control act of 1978 (P.L. 95-604, 92 Stat. 3021). The NRC's interpretation of its responsibilities to consider economic costs and other factors included whether it could rely on information developed by the EPA during the development of the EPA's general environmental standards at 10 CFR Part 192, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings." The NRC concluded that the time permitted by the statute to develop its regulations did not provide enough time to conduct an independent study of the costs and benefits and that relying on the EPA analysis, was appropriate in fulfilling its responsibilities. The Court — in *Quivira Mining Company v. NRC*, "—found that the legislative history and the statute were not clear and did not reject the NRC's interpretation."

The NWPA establishes timelines for certain actions, including a nominal three-year deadline for a licensing decision. The DOE's EIS for Yucca Mountain was expected to be similar in scope as that required for the NRC licensing decision. These factors had similarity to the development of regulations for uranium mill tailings. The NRC believed that there was ambiguity in the statutory language and the legislative history of NWPA addressing the adoption criteria that the NRC could use for the Yucca Mountain EIS. This ambiguity provided flexibility in how the NRC could interpret the effect of the NWPA on the NRC's responsibilities under NEPA when adopting the DOE's EIS, where a reasonable interpretation is likely to receive deference when subjected to judicial review.

## The NEPA Responsibilities of the EPA in the Disposal of Transuranic Waste (WIPP)

The regulation of the WIPP, illustrates some differences in the roles of the NRC and the EPA under NEPA. The WIPP is a geologic repository for the disposal of transuranic wastes. The DOE has the responsibility for the development and operation of the WIPP. The EPA has the responsibility for developing the environmental standards and the implementing regulations.

The EPA was given the responsibility to develop generally applicable environmental standards for the disposal of radioactive material by the Energy Reorganization Act of 1970. 46

The EPA established generally applicable environmental standards at 10 CFR Part 191, "Environmental Standards for the Management and Disposal of Spent Nuclear Fuel; High-Level and Transuranic Radioactive Wastes." When the EPA began developing its generally applicable environmental standards at 10 CFR Part 191, the EPA began to prepare an EIS. This was consistent with the EPA's policy for voluntarily preparing an EIS that was in effect at the time. When the EPA published its final rule promulgating the requirements at 10 CFR Part 191, the EPA was exempted, by Section 121(c) of the NWPA, from preparing an EIS when developing the generally applicable environmental standards. The EPA was also exempted from having to conduct any environmental review required by paragraphs (E) and (F) of Section 102(2) of NEPA. The EPA did, however, make information that would have been contained in an EIS available in Background Information Documents prepared for the final rule. After the EPA completed it environmental standards for the disposal of HLW and transuranic waste at 10 CFR Part 191, the EPA regulations were remanded to the EPA for reconsideration.

After the court remand, the EPA standards — with the exception of those requirements that were the subject of the court remand — were reinstated by Section 8 of the Waste Isolation Pilot Plant Land Withdrawal Act. The reinstated standards applied to the WIPP, but not for any site required to be characterized under Section 113(a) of the Nuclear Waste Policy Act (e.g., Yucca Mountain, Nevada).<sup>52</sup>

Section 8 of the Waste Isolation Pilot Plant Land Withdrawal Act requires the EPA to certify, through rulemaking, whether the WIPP complies with the final disposal regulations. The EPA promulgated the requirements for making its certification decision at 10 CFR Part 194, "Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the 10 CFR 40 CFR Part 191 disposal regulations." The EPA made its first certification

decision in 1996<sup>55</sup> and recertification decisions in 2006<sup>56</sup> and 2010.<sup>57</sup> The EPA does not have the same procedural requirements for preparing, or adopting, an EIS that other agencies have. Consequently, the EPA did not need to develop an EIS or adopt the DOE's EIS when making these decisions. This made the EPA process for making its decision simpler than it would be for other Federal agencies that would be obligated to prepare, or adopt, an EIS for their decision.

The EPA is required to comply with the procedural requirements for NEPA only for a limited set of activities. For example, Section 511(c)(1) of the Federal Water Pollution Control Act (or Clean Water Act) establishes that no action of the EPA taken pursuant to the Clean Water Act is be considered a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA with an exception for Federal financial assistance for the construction of publicly owned waste treatment plants.<sup>58</sup> The EPA initially interpreted the provisions of the Clean Water Act as limiting the EPA's voluntary preparation of EISs to only those outside of the exemption in Section 511(c)(1).<sup>59</sup> However, when the EPA updated its policy statement, it acknowledged that the voluntary preparation of an EIS for activities exempted under Section 511(c)(1) of the Clean Water Act or under a similar exemption for Clean Air Act activities were not precluded. 60 EPA response actions relating to Comprehensive Environmental Response, Compensation, and Liability Act are also exempted from the procedural compliance with NEPA.<sup>61</sup> EPA's responsibility for compliance with the procedural requirements of NEPA has also been influenced by court decisions; the reasoning has been that the EPA's procedures or environmental reviews under its enabling legislation are functionally equivalent to the NEPA process. 62 Another difference is that under Section 309 of the Clean Air Act, the EPA is obligated to review newly authorized Federal projects for construction and major Federal actions which require the preparation of an EIS pursuant to NEPA and to make the comments from its review public. 63

There are significant differences in how the NRC and the EPA have had to confront their compliance with NEPA when performing their regulatory oversight of the geologic disposal of radioactive material. These differences arise from the effects of other laws and court decisions. The EPA's process for certifying the compliance of the WIPP with the disposal regulations is through rulemaking, rather than through the hearings that the NRC would use for a Yucca Mountain repository. In addition, the EPA is not required to either to develop an EIS for its certification decision or its recertifications for the WIPP; consequently, the EPA does not have to

adopt an EIS developed by the DOE. In contrast the NRC had to incorporate its NEPA responsibilities, which requires consideration of whether, and to what extent, the NRC is able to adopt an EIS developed by the DOE for its licensing decisions and to integrate this decision into the NRC's licensing process.

National Environmental Policy Act of 1969, as amended, P.L. 91-190 (42 U.S.C. 4321-4347).

<sup>&</sup>lt;sup>2</sup> Nuclear Waste Policy Act of 1982, as amended, P.L. 97-425 (42 U.S.C. 10101 et seg.).

<sup>&</sup>lt;sup>3</sup> Nuclear Waste Policy Amendments Act of 1987, (Title V, Subtitle A, Omnibus Budget Reconciliation Act of 1987), P.L. 100-203.

<sup>&</sup>lt;sup>4</sup> Energy Policy Act of 1992, P.L. 102-486 (106 Sta. 2776).

<sup>&</sup>lt;sup>5</sup> Energy Reorganization Act of 1970.

<sup>&</sup>lt;sup>6</sup> National Environmental Policy Act of 1969, Section 102 (42 U.S.C. 4332).

<sup>&</sup>lt;sup>7</sup> U.S. Nuclear Regulatory Commission, "Environmental Protection: Licensing and Regulatory Policy and Procedures," 39 FR 26279 (July 18, 1974).

 $<sup>^8</sup>$  Council on Environmental Quality, "Regulations for Implementing the Provisions of the National Environmental Policy Act," 43 FR 55990 (November 28, 1978).

<sup>&</sup>lt;sup>9</sup> U.S. Nuclear Regulatory Commission, "Environmental Protection Regulations for Domestic Licensing and Related Conforming Amendments," 49 FR 9352 (March 12, 1984).

<sup>&</sup>lt;sup>10</sup> U.S. Nuclear Regulatory Commission, "Environmental Protection Regulations for Domestic Licensing and Related Conforming Amendments," 49 FR 9352 (March 12, 1984).

<sup>&</sup>lt;sup>11</sup> National Environmental Policy Act of 1969, Section 103 (42 U.S.C. 4333).

<sup>&</sup>lt;sup>12</sup> Nuclear Waste Policy Act of 1982, Section 121 (42 U.S.C. 10141).

<sup>&</sup>lt;sup>13</sup> National Environmental Policy Act of 1969, Section 102 (42 U.S.C. 4332).

<sup>&</sup>lt;sup>14</sup> Nuclear Waste Policy Act, Section 114(f) (42 U.S.C. 10134).

<sup>&</sup>lt;sup>15</sup> Nuclear Waste Policy Act, Section 113(d) (42 U.S.C. 10133).

<sup>&</sup>lt;sup>16</sup> Nuclear Waste Policy Act, Section 114(f) (42 U.S.C. 101134).

<sup>&</sup>lt;sup>17</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," Proposed Rule, 53 FR 16132 (May 5, 1988).

<sup>&</sup>lt;sup>18</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," Proposed Rule, 53 FR 16133 (May 5, 1988).

<sup>&</sup>lt;sup>19</sup> Nuclear Waste Policy Act, Section 114(f) (42 U.S.C. 10134).

<sup>&</sup>lt;sup>20</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," Proposed Rule, 53 FR 16134 (May 5, 1988).

<sup>&</sup>lt;sup>21</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," Proposed Rule, 53 FR 16136 (May 5, 1988).

<sup>&</sup>lt;sup>22</sup> Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 527 (1977).

<sup>&</sup>lt;sup>23</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," Proposed Rule, 53 FR 16136 (May 5, 1988).

 $<sup>^{24}</sup>$  U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27865 (July 3, 1989).

- <sup>36</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27868 (July 3, 1989).
- <sup>37</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27866 (July 3, 1989).
- <sup>38</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 53 FR 16131 (May 5, 1988).
- <sup>39</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 53 FR 16131 (May 5, 1988).
- <sup>40</sup> Nuclear Waste Policy Act, Section 114 (42 U.S.C. 10134).
- <sup>41</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27866 (July 3, 1989).
- <sup>42</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27866 (July 3, 1989).
- <sup>43</sup> Quivira Mining Company v. NRC, 866 F.2d 1246 (10<sup>th</sup> Cir. 1989).
- <sup>44</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27865 (July 3, 1989).
- $^{45}$  U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27865 (July 3, 1989).
- <sup>46</sup> Energy Reorganization Act of 1970.
- <sup>47</sup> U.S. Environmental Protection Agency, 10 CFR Part 191, "Environmental Standards for the Management and Disposal of Spent Nuclear Fuel; High-Level and Transuranic Radioactive Wastes," 50 FR 38066 (September 19, 1985).

<sup>&</sup>lt;sup>25</sup> Nuclear Waste Policy Amendments Act of 1987, (Title V, Subtitle A, Omnibus Budget Reconciliation Act of 1987), P.L. 100-203.

<sup>&</sup>lt;sup>26</sup> Nuclear Waste Policy Act of 1982, as Amended, Section 114(f)(6), (42 U.S.C. 10134).)

<sup>&</sup>lt;sup>27</sup> Nuclear Waste Policy Act of 1982, as amended, Section 119 (42 U.S.C. 10139).

<sup>&</sup>lt;sup>28</sup> Nuclear Waste Policy Act of 1982, as amended, Section 114 (42 U.S.C. 10133).

<sup>&</sup>lt;sup>29</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 53 FR 16136 (May 5, 1988).

<sup>&</sup>lt;sup>30</sup> U.S. Nuclear Regulatory Commission, 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," Section 124, "Commission duty to comment."

<sup>&</sup>lt;sup>31</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27864 (July 3, 1989).

<sup>&</sup>lt;sup>32</sup> Nuclear Waste Policy Act, Section 407(c) (42 U.S.C. 10247).

<sup>&</sup>lt;sup>33</sup> Council on Environmental Quality, 40 CFR Part 1506, "Other Requirements of NEPA," Section 1506.3, "Adoption."

<sup>&</sup>lt;sup>34</sup> U.S. Nuclear Regulatory Commission, "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 FR 27867 (July 3, 1989).

<sup>&</sup>lt;sup>35</sup> Council on Environmental Quality, 40 CFR Part 1506, "Other Requirements of NEPA," Section 1506.3, "Adoption."

<sup>&</sup>lt;sup>48</sup> Nuclear Waste Policy Act (P.L. 97-425).

<sup>&</sup>lt;sup>49</sup> U.S. Environmental Protection Agency, "Environmental Impact Statements: Statement of Policy," 39 FR 37419 (May 7, 1974).

<sup>&</sup>lt;sup>50</sup> U.S. Environmental Protection Agency, 10 CFR Part 191, "Environmental Standards for the Management and Disposal of Spent Nuclear Fuel; High-Level and Transuranic Radioactive Wastes," 50 FR 38083 (September 19, 1985).

<sup>&</sup>lt;sup>51</sup> Natural Resources Defense Council, Inc. v. United States Environmental Protection Agency, 824 F.2d 1258 (1<sup>st</sup> Cir. 1987).

<sup>&</sup>lt;sup>52</sup> Waste Isolation Pilot Plant Land Withdrawal Act (P.L. 102-579) (October 30, 1992).

<sup>&</sup>lt;sup>53</sup> Waste Isolation Pilot Plant Land Withdrawal Act (P.L. 102-579) (October 30, 1992).

<sup>&</sup>lt;sup>54</sup> U.S. Environmental Protection Agency, 10 CFR Part 194, "Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the 10 CFR 40 CFR Part 191 Disposal Regulations," 61 FR 5224 (February 9, 1996).

<sup>&</sup>lt;sup>55</sup> U.S. Environmental Protection Agency, "Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Certification Decision; Final Rule," 63 FR 27353 (May 18, 1998).

<sup>&</sup>lt;sup>56</sup> U.S. Environmental Protection Agency, "Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Recertification Decision; Final Notice," 71 FR 18010 (April 10, 2006).

<sup>&</sup>lt;sup>57</sup> U.S. Environmental Protection Agency, "Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Recertification Decision; Recertification Decision," 75 FR 70584 (November 18, 2010).

<sup>&</sup>lt;sup>58</sup> Federal Water Pollution Control Act, Section 511(c)(1) (33 U.S.C. 1371).

<sup>&</sup>lt;sup>59</sup> U.S. Environmental Protection Agency, "Environmental Impact Statements: Statement of Policy," 39 FR 37419 (May 7, 1974).

<sup>&</sup>lt;sup>60</sup> U.S. Environmental Protection Agency, "Notice of Policy and Procedures for Voluntary Preparation of National Environmental Policy Act (NEPA) Documents," 63 FR 58045 (October 29, 1998).

<sup>&</sup>lt;sup>61</sup> U.S. Environmental Protection Agency, "Notice of Policy and Procedures for Voluntary Preparation of National Environmental Policy Act (NEPA) Documents," 63 FR 58045 (October 29, 1998).

<sup>&</sup>lt;sup>62</sup> U.S. Environmental Protection Agency, "Notice of Policy and Procedures for Voluntary Preparation of National Environmental Policy Act (NEPA) Documents," 63 FR 58045 (October 29, 1998).

<sup>&</sup>lt;sup>63</sup> Clean Air Act, Section 309 (42 U.S.C. 7609).