

United States of America
Nuclear Regulatory Commission

William Kane, Director
Office of Nuclear Material Safety and Safeguards

In the Matter of

U.S. Department of Energy
(Savannah River High-Level Waste Tanks)

RESPONSE TO NRDC PETITION

I. Introduction

On July 28, 1998, the Natural Resources Defense Council (NRDC) submitted a petition to the U.S. Nuclear Regulatory Commission (NRC) requesting that NRC "...assume and exercise immediate licensing authority over all high-level radioactive waste (HLW) that is stored in the 51 underground tanks located on the Department of Energy's (DOE) Savannah River Site (SRS)." NRC published receipt of the petition in the Federal Register on September 4, 1998 (63 FR 47333). On September 30, 1998, DOE's General Counsel responded to NRDC's petition. On October 23, 1998, NRDC responded to DOE's reply.

On March 6, 2000, NRDC sent a letter to Chairman Richard A. Meserve asking for a public meeting to discuss the Savannah River tank closure program and to consider the points NRDC raised in its petition. The NRDC letter also stated that the NRC should initiate formal rulemaking if the Commission agreed with the NRC staff's position in SECY 99-284 (December 15, 1999).¹

¹ SECY 99-284, "Classification of Savannah River Residual Tank Waste," December 15, 1999, addressed NRC staff views on DOE's methodology for classifying incidental waste at SRS.

NRDC, in submitting this petition, expressly stated that it did not seek to have the petition addressed under the procedures of 10 CFR 2.206, "Requests for Action under This Subpart."² However, it requested the Commission to exercise its authority to take regulatory action. This petition was considered under the Commission's general authority to address issues associated with its jurisdiction.³

By letter dated August 27, 1998, the Director of the Office of Nuclear Material Safety and Safeguards (NMSS) informed the petitioner that immediate action was not warranted for a number of reasons, including: 1) NRC does not perceive any immediate threat to the public health and safety from DOE's management of the SRS tank farm; 2) DOE is actively monitoring the condition and safety of the tanks; and 3) DOE has agreed not to close any more tanks, pending the NRC staff's completion of its review of DOE's waste classification methodology. The Director, NMSS, informed NRDC that the NRC staff would not respond to the petition until it completed its review of DOE's classification methodology.⁴

² NRDC stated: "This petition does not call for NRC to exercise an enforcement or other judicially un-reviewable discretionary action within the meaning of 10 CFR 2.206 or the holding in *Hechler v. Chaney*, 470 US 821 (1985)."

³ In light of the specific request of the petitioner in the July 28, 1998 petition, this petition was not treated as a petition submitted under 10 CFR 2.206, notwithstanding the petitioner's March 6, 2000 letter referring to the petition as "its 2.206 petition."

⁴ The staff has completed its review, and has transmitted the results to DOE. See letter from W.F. Kane/NRC to R. Schepens/DOE-SRS, dated June 30, 2000.

II. Discussion

A. NRC's Jurisdiction

NRC has limited licensing authority over DOE activities. With the dissolution of the Atomic Energy Commission in 1975, NRC was given licensing and related regulatory responsibilities for only four types of facilities within the Energy Research and Development Administration (ERDA) (now DOE). Two types of facilities are relevant to HLW issues. Specifically, Section 202(3) of the Energy Reorganization Act (ERA) addresses facilities used primarily for the receipt and storage of HLW resulting from activities licensed under the Atomic Energy Act. Section 202(4) addresses “...*facilities authorized for the express purpose of subsequent long term storage of high-level radioactive waste* generated by the Administration [now DOE], which are not used for, or part of, research and development activities.” (Emphasis added.)

Section 202(3) is not relevant here because Savannah River does not possess wastes from licensed activities. Section 202(4) would be relevant if: (1) the DOE facility at Savannah River was for storing high-level waste for the long term; and (2) such facility was “authorized for the express purpose of subsequent storage of high-level radioactive waste.” The HLW at Savannah River is from defense activities. DOE intends the tanks to be closed in place. It has no intent to recover the residual waste for future use, processing, or disposal. The burial of any residual material in the tanks on site is, in essence, disposal. However, for purposes of the ERA, the Commission has interpreted the term “storage” to include disposal.⁵ Assuming the

⁵ The ERA does not define the term “storage.” The ERA does not explicitly give NRC jurisdiction over the disposal of HLW. However, the Commission, in 1981, when it promulgated 10 CFR Part 60, “Disposal of High-Level Wastes in Geologic Repositories,” asserted that, “[T]he Commission interprets ‘storage’ as used in the Energy Reorganization Act

residual material is HLW, to resolve the question of NRC jurisdiction requires a determination as to whether the tanks have been expressly authorized for long-term storage of HLW.⁶

This issue was raised before the Commission in the late 1970s in a petition filed by NRDC. The NRDC petition requested that NRC license the tanks at Savannah River. The Commission, after reviewing the legislative history for Section 202(4)⁷ and past authorization acts, could not find that these tanks were "...authorized for the express purpose of subsequent long term storage." The Commission concluded that it had no jurisdiction because the tanks, at the time, were intended for interim storage and had not been authorized for long-term storage. [In the Matter of NRDC, "Request Concerning ERDA High-Level Waste Storage Facilities," CLI 77-9, 5 NRC 550 (1977).] Based on the legislative history, the Commission also concluded that Congress "had in mind" that Section 202(4) would apply to facilities not in existence in 1974

to include disposal." "Disposal of High-Level Radioactive Wastes in Geologic Repositories: Licensing Procedures," 46 FR 13971, Footnote 1 (February 25, 1981). See also 10 CFR 60.102(b)(3). This is different from the Nuclear Waste Policy Act of 1982 (NWPA), Public Law 97-425, 96 Stat. 2201, 42 U.S.C. 10101, *et seq.*, which, in Section 25, defines "storage" to mean retention of HLW with the intent to recover it for future use, processing, or disposal.

⁶ See Footnote 2, "Denial of Rulemaking Petition," 58 FR 12346, where the Commission said that the contents of the waste in the Hanford tanks are not dispositive of the question of whether the storage of the treated wastes is subject to NRC licensing.

⁷ The Senate Committee on Government Operations explained that Section 202(4) provides NRC "...with the authority and responsibility for licensing and related regulation of retrievable surface storage facilities and other facilities for high-level radioactive wastes which are or may be authorized by the Congress... for long-term storage.... It is not the intent of the Committee to require licensing of such storage facilities which are already in existence...." Committee on Government Operations, Senate Report 93-980, at 59 (June 27, 1974) (emphasis added). The Conference Report explained that it retained the Senate language for Section 202(4) and also noted that facilities for long-term storage were not in existence. [Conference Report HR 93-1445 (October 8, 1974).]

when the ERA was enacted.⁸ However, the Commission opined that Section 202(4) could apply to facilities constructed before 1974, if they were subsequently expressly authorized for long-term storage. [*Id.* at 554.]⁹

In seeking judicial review of the Commission's decision denying the NRDC's petition, the NRDC argued that the question of whether the tanks are expressly authorized for long-term storage turns on the likelihood that the tanks will be used for long-term storage rather than whether Congress or the ERDA actually authorized them. The Court rejected that view stating:

Had Congress desired to base NRC licensing jurisdiction on a factual determination of the probability that particular ERDA waste storage facilities would for reasons of necessity or otherwise, be used for long-term storage, it would have enacted a statute significantly different from that before us. Instead, Congress chose to give NRC licensing jurisdiction when such facilities are "authorized for the express purpose of subsequent long-term storage." 42 U.S.C. 5842(4). Although the parties suggest that some ambiguity exists concerning who must give the required authorization, Congress or ERDA, neither authorized the... tanks for long-term storage. [*NRDC v. USNRC*, 606 F2d 1261,1267 (D.C. Cir.1979).]

⁸ There are 51 underground storage tanks at Savannah River. Eighteen of these tanks were constructed after the passage of the ERA. DOE maintains that none of these tanks was expressly authorized for long-term storage of HLW. Letter from Mary Anne Sullivan, General Counsel, DOE, to John Greeves, Director, Division of Waste Management, NRC, "NRDC Petition to Exercise Licensing Authority Over Savannah River Site High-Level Waste Tanks," September 30, 1998.

⁹ As noted below, there have not been any subsequent Congressional authorizations.

In light of its finding that neither the ERDA nor the Congress had expressly authorized the tanks for long-term storage, the Court did not resolve this suggested ambiguity. The purpose of Section 202 of the ERA was to give NRC new authority over ERDA. However, this was limited authority as the new authority only extended to certain ERDA activities. Senate Report 93-980 is clear that Congress was to make the authorization. Given that it was the Senate language that was adopted in the final bill, its views are instructive. Moreover, there is no evidence in the legislative history to suggest that Congress intended the ERDA to have the discretion to decide for itself which facilities would be authorized for long-term storage and, therefore, licensed by NRC. It does not seem reasonable that Congress would have intended that result given the purpose of Section 202 to establish licensing requirements for certain ERDA facilities. Following the logic of the Court of Appeals, if Congress intended that the ERDA could have provided the authorization, significantly different language would have been used.

Thus, absent express Congressional authorization, NRC does not have jurisdiction over defense HLW stored at Savannah River. Since the enactment of the ERA, there has not been an express authorization for long-term storage of HLW at Savannah River. Congress has repeatedly authorized funds for interim storage at Savannah River and funds for removal of HLW from filled waste tanks. With one exception, there has not been a reference to long-term storage at Savannah River. The exception -- Section 3141 of the National Defense Authorization Act for Fiscal Year 1997 [P.L. 104-201, 110 Stat. 2422(1996)] -- directed that the Secretary of Energy accelerate the schedule for isolation of HLW in glass containers if the Secretary found, among other things, that it "...could accelerate the removal and isolation of high-level waste from long-term storage tanks at the [Savannah River] site." Although this is a recognition that there is, and is likely to be, lengthy storage at Savannah River, this language is not an authorization for the "...express purpose of subsequent long-term storage." If anything, it

is an indication from Congress that it does not desire long-term storage of HLW at Savannah River. In sum, although Congress is aware that DOE is in the process of removing HLW from the storage tanks at Savannah River, it has not expressly authorized the long-term storage of any residual HLW in those tanks.

Apart from the ERA, NRC has authority to license DOE's repositories for disposal of HLW arising out of defense activities. Section 8(b)(3) of the NWPA provides that any repository for the disposal of HLW resulting from atomic energy defense activities is to be licensed under Section 202 of the ERA and is to be subject to the Commission's requirements. Section 2(18) of the NWPA defines a "repository" to mean "permanent deep geologic disposal...." Although the HLW at Savannah River is defense waste, it is not stored nor disposed of, nor intended to be stored or disposed of in a repository as that term is used in the NWPA.¹⁰ Therefore, the NWPA is not a source for NRC jurisdiction over the Savannah River tanks.

B. Incidental Waste

As to the issue of incidental waste raised by NRDC, NRC has in the past recognized the concept of incidental waste. For example, in a response to a rulemaking petition involving Hanford, the Commission concluded that the reprocessed wastes would be "incidental waste" and not HLW, based on DOE's assurances that the wastes:

¹⁰ Neither the NWPA nor 10 CFR Part 60 requires HLW to be disposed of in a geologic repository. Should future reprocessing of commercial fuel occur, 10 CFR Part 50, Appendix F, would require the resulting HLW to be transferred to a Federal repository. See also, the 1987 advance notice of proposed rulemaking to define HLW, 52 FR 5992, 5993 (February 27, 1987).

- (1) have been processed (or will be further processed) to remove key radionuclides to the maximum extent that is technically and economically practical;
- (2) will be incorporated in a solid physical form at a concentration that does not exceed the applicable concentration limits for Class C low-level waste as set out in 10 CFR Part 61; and
- (3) are to be managed, pursuant to the Atomic Energy Act, so that safety requirements comparable to the performance objectives set out in 10 CFR Part 61, Subpart C, are satisfied.¹¹

NRC recognizes that the residual waste at Savannah River is different from the waste at Hanford. The residual waste at Savannah River generally consists of waste that is left on the bottom of the tanks and that is embedded in pits in the tank walls; at Hanford, the waste consists of the low-activity fraction resulting from pre-treatment. Importantly, the waste at Hanford was not greater than Class C. At Savannah River some of the residual waste, if subject to 10 CFR Part 61, would be classified, in accordance with 10 CFR 61.55, as greater than Class C. The Commission's regulations at 10 CFR 61.58 reserve the discretion to allow material to be treated as not greater than Class C if the requirements of 10 CFR Part 61, Subpart C, are met. However, in light of the lack of NRC jurisdiction over the SRS tanks, NRC has not adopted a position as to whether the residual waste DOE seeks to classify as "incidental waste" in these tanks is considered HLW.

NRC has provided technical assistance, from a safety perspective, on DOE's methodology for classifying waste as "incidental." In the June 30, 2000, letter, the NRC staff stated:

¹¹ Id. at 12345.

Based on the information provided, the staff has concluded that the methodology for tank closure at SRS appears to reasonably analyze the relevant considerations for Criterion One and Criterion Three of the three incidental waste criteria. DOE would undertake cleanup to the maximum extent that is technically and economically practical, and would demonstrate it can meet performance objectives consistent with those required for disposal of low-level waste. These commitments, if satisfied, should serve to provide adequate protection of public health and safety.... The NRC staff, from a safety perspective, therefore does not disagree with DOE-SR's proposed methodology, contingent upon DOE reaching current goals for bulk waste removal, as well as water and chemical washing, such that the performance objectives stated in Subpart C 10 CFR 61 are met....

The staff's technical advice does not mean that NRC has decided that the material left in the tanks is incidental waste. The results of the NRC staff review were provided as input to the DOE decision. DOE is responsible for determining whether the residual tank waste can be classified as incidental.¹²

¹² DOE has promulgated an order, DOE 435.1, "Radioactive Waste Management," (July 9, 1999), that addresses, among other things, the classification of waste as incidental and not HLW. NRDC has challenged DOE's use of incidental waste. [*NRDC and Snake River v. DOE*, No. 00-70015 (May 22, 2000).]

III. Conclusion

NRC has provided technical assistance, from a safety perspective, on DOE's methodology for classifying waste as "incidental." NRC staff has concluded that DOE's commitments to (1) clean up to the maximum extent technically and economically practical, and (2) meet performance objectives consistent with those required for disposal of low-level waste, if satisfied, should serve to provide adequate protection of public health and safety.

NRC does not have licensing and related regulatory authority over the HLW or residual wastes in the tanks at Savannah River. The authority and responsibility for classifying the waste at Savannah River reside in DOE, not NRC. Therefore, the issues underlying the petition should be directed to DOE.

Dated at Rockville, Maryland, this 2nd day of October, 2000.

For the Nuclear Regulatory Commission.

/RA/

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