

Waste Confidence Update

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Background

- Genesis of Waste Confidence Decision (WCD)
 - *State of Minnesota v. NRC*, 602 F.2d 412 (DC Cir. 1979)
 - Denial of NRDC Petition for Rulemaking (PRM-50-18), 42 Fed. Reg. 34391; July 5, 1977
- Historically, WCD Consisted of 5 Findings
 - Finding 1: technical feasibility of safe disposal in mined geologic repository
 - **Finding 2: when a mined geologic repository might become available**
 - Finding 3: whether waste can be managed safely until a mined geologic repository becomes available
 - **Finding 4: how long used fuel can be safely stored onsite without significant environmental impact**
 - Finding 5: whether safe independent onsite or offsite storage will be made available if needed

Traditional View of Waste Confidence Decision

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- WCD served as the environmental assessment (EA) supporting the finding of no significant impact (FONSI) articulated in the Temporary Storage Rule (10 CFR § 51.23).

Finding of No Significant Environmental Impact: Availability

This final rule amends the generic determination in 10 CFR 51.23 to state that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite ISFSIs.

The environmental assessment on which the revised generic determination is based is the revision and update to the Waste Confidence findings published elsewhere in this Federal Register. Based on this analysis, the Commission finds that this final rulemaking has no significant environmental impacts. The final revisions and update to the Waste Confidence findings are available as specified in the ADDRESSES section of this document.

Traditional View of Temporary Storage Rule (TSR)

- Generic NEPA finding of no significant impact (FONSI) regarding the environmental impacts of used fuel storage during the time between the end of license life and the time the fuel is removed for disposal.
- Incorporates Findings 2 and 4 of WCD
- 1990:
 - Finding 2: repository availability by 2025; within 30 years of end of licensed life for any reactor
 - Finding 4: onsite storage 30 years post-license life safely without significant environmental impact
- 2010:
 - Finding 2: repository available “when necessary”
 - Finding 4: onsite storage 60 years post-license life safely without significant environmental impact

§51.23 Temporary storage of spent fuel after cessation of reactor operation—generic determination of no significant environmental impact.

(a) The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary.

Legal / Regulatory Effect of TSR

- Absent a waiver (see 10 CFR §2.335), environmental impacts of used fuel storage covered by the EA and FONSI are not considered in issuing or amending licenses for nuclear power reactors or ISFSIs

§51.23 Temporary storage of spent fuel after cessation of reactor operation—generic determination of no significant environmental impact.

* * * * *

(b) Accordingly, as provided in §§ 51.30(b), 51.53, 51.61, 51.80(b), 51.95, and 51.97(a), and within the scope of the generic determination in paragraph (a) of this section, no discussion of any environmental impact of spent fuel storage in reactor facility storage pools or independent spent fuel storage installations (ISFSI) for the period following the term of the reactor operating license or amendment, reactor combined license or amendment, or initial ISFSI license or amendment for which application is made, is required in any environmental report, environmental impact statement, environmental assessment, or other analysis prepared in connection with the issuance or amendment of an operating license for a nuclear power reactor under parts 50 and 54 of this chapter, or issuance or amendment of a combined license for a nuclear power reactor under parts 52 and 54 of this chapter, or the issuance of an initial license for storage of spent fuel at an ISFSI, or any amendment thereto.

Challenge to the 2010 Waste Confidence Update

- June 2012 DC Circuit vacated and remanded the WCD and TSR (*New York v. NRC*)
 - WCD is a “major federal action;” NRC must perform either EA with FONSI or EIS
 - Existing EA and FONSI are inadequate
 - Need to examine environmental consequences of “no repository” scenario
 - Analysis of pool leaks focused on review of past experience “insufficient” – evaluation of potential future leaks necessary
 - Analysis of SFP fires focused on low probability of occurrence – evaluation of consequences necessary, unless probability effectively zero

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Post-Decision Developments

- SRM-COMSECY-12-0016
 - Directs staff to proceed directly with development of generic waste confidence EIS and updated TSR within 24 months
- Scoping for GEIS
 - 70-day scoping period
 - Scoping Summary Report issued March 2013
- Draft GEIS and Proposed Rule expected: Sept. 2013
- Public Comment period: Sept. – Nov. 2013
- Final GEIS and TSR expected: Aug. 2014

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Scoping Summary Report

- Identified several issues as outside the scope of the GEIS
 - Noncommercial used fuel (defense wastes, other reactor wastes)
 - Non-power reactor used fuel
 - Need for and alternatives to nuclear power
 - Impacts associated with constructing and operating reprocessing facilities
 - Commercial HLW generated through reprocessing
 - Emergency preparedness
 - Uranium fuel cycle
- Alternatives rejected
 - Cessation of all licensing activities
 - Cessation of NPP operation
 - Implementation of Hardened On-Site Storage (“HOSS”)

What Might New Waste Confidence World Look Like?

Old World

WCD used as Environmental Assessment (EA)

- Tool used to decide whether EIS necessary
- More limited scope and level of detail than full EIS
- Less formal process (opportunity to comment on draft EA and FONSI may be offered)

TSR used as Finding of No Significant Impact

- Conclusion that a full EIS is not necessary
- Precludes consideration of environmental impacts of used fuel storage covered by the EA and FONSI in adjudication of individual license applications

New World

Full Generic EIS

- Eliminates question of whether an EIS is necessary
- Expanded scope and level of detail (bounded by NEPA “rule of reason”)
- More formal process (scoping, issuance of draft, public comment, public meetings, etc.)

TSR will “reflect results of the EIS”

- No need for FONSI – full EIS undertaken
- Likely to explain extent to which adjudication of used fuel storage covered by the GEIS is precluded during individual licensing proceedings
- Need for separate “Waste Confidence Decision”?

Important NEPA Principles to Keep in Mind . . .

- Requirement to prepare an EIS serves dual purposes:
 - Ensure federal agencies will have available and consider detailed information on environmental impacts of major federal actions (i.e., “hard look”)
 - Ensure such information is made available to public and other stakeholders that may also play a role in decision-making process
- NEPA itself does not mandate specific results or licensing decisions, rather it prescribes a process designed to prevent uninformed agency action
 - NEPA requires careful consideration and balancing of environmental impacts, but does not elevate such impacts above other considerations
 - Agencies may take action, even in situations where significant environmental impacts may result
- NEPA does not require that an agency delay action until better information becomes available
 - CEQ regulations address “incomplete” or “unavailable” information (worst-case assumptions are not required)

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