

July 11, 2012

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
GE-HITACHI GLOBAL LASER ENRICHMENT)	Docket No. 70-7016-ML
LLC)	
)	
(GLE Commercial Facility))	ASLB No. 10-901-03-ML-BD01
)	

NRC STAFF RESPONSE TO BOARD QUESTION REGARDING THE
RECENT D.C. CIRCUIT ORDER VACATING THE 2010 WASTE CONFIDENCE RULE

In a pre-hearing teleconference held on June 28, 2012, the Atomic Safety and Licensing Board (the Board) asked the U.S. Nuclear Regulatory Commission (NRC) staff (Staff) and GE-Hitachi Global Laser Enrichment LLC (GLE or Applicant) whether there are “any implications of [the] D.C. Circuit decision[]”¹ concerning the waste confidence rule for this proceeding?”² The Board further asked, “is there any relevance to the D.C. Circuit decision to this proceeding?”³

The D.C. Circuit’s decision vacated the NRC’s 2010 Update to the Waste Confidence Decision and accompanying Temporary Storage Rule and remanded those rulemakings to the NRC.⁴ The Commission, however, has not yet indicated how it intends to respond to the D.C. Circuit’s ruling. For the following reasons, the D.C. Circuit’s decision vacating the 2010

¹ *State of New York v. NRC*, No. 11-1045 (D.C. Cir. June 8, 2012) (hereinafter *Waste Confidence Remand*).

² Transcript of Pre-Hearing Telephone Conference at 27 (June 28, 2012) (ADAMS Accession No. ML12184A309).

³ *Id.* at 28.

⁴ *Waste Confidence Remand* at 21 (citing Waste Confidence Decision Update, 75 Fed. Reg. 81,037 (Dec. 23, 2010); Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 75 Fed. Reg. 81,032 (Dec. 23, 2010)).

rulemaking on waste confidence is not relevant to this proceeding and does not have any implications on this proceeding.

A. The Waste Confidence Rule does not apply to uranium enrichment facilities.

The Waste Confidence Rule, 10 C.F.R. § 51.23 (2010), specifically refers to the “temporary storage of spent fuel after cessation of reactor operation.”⁵ In essence, the Waste Confidence Rule provides the following:

[N]o discussion of any environmental impact of spent fuel storage in reactor facility storage pools or independent spent fuel storage installations (ISFSI) . . . is required in any . . . 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.⁶

As stated in the statements of consideration accompanying the proposed rule for the original waste confidence rulemaking, the Waste Confidence Rule was intended to allow “environmental and safety implications of spent fuel storage after the termination of reactor operating licenses not [to] be considered further in Commission proceedings for the issuance of an operating license or licensee amendment for a nuclear power plant,” and was intended to also “appl[y] to proceedings for licensing spent fuel storage in independent spent fuel storage installations under Part 72.”⁷ Since this proceeding does not concern issuance or amendment of an operating license or a combined license for a power reactor, nor does it concern issuance or amendment of an ISFSI license, the Waste Confidence Rule does not apply to this proceeding. Therefore, the D.C. Circuit’s decision vacating the 2010 rulemaking on waste confidence is not relevant to this proceeding.

⁵ Spent fuel is one type of high-level waste. These terms are used interchangeably throughout this document.

⁶ 10 C.F.R. § 51.23(b) (2010).

⁷ Requirements for Licensee Actions Regarding the Disposition of Spent Fuel Upon Expiration of the Reactors’ Operating Licenses, 48 Fed. Reg. 22,730 (May 20, 1983).

- B. The National Environmental Policy Act (NEPA) does not require the Staff to include in its indirect impact analysis for a uranium enrichment facility consideration of the disposal of high-level waste.

Section 102(C) of NEPA directs all federal agencies to “include in every recommendation or report on . . . major Federal actions significantly affecting the quality of the human environment, a detailed statement . . . on (i) the environmental impact of the proposed action, [and] (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented.”⁸

With respect to how far an agency must look under NEPA when considering the impacts of indirect effects, the Supreme Court held, in *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983), that in complying with the requirements of NEPA, there must be a proximate relationship between the proposed action and a change in the physical environment.⁹ The regulations implementing NEPA define “indirect effects” as those which are “caused by the action and are later in time or farther removed in distance, but which are still reasonably foreseeable.”¹⁰ The Supreme Court explained that “the terms ‘environmental effect’ and ‘environmental impact’ in § 102 [should] be read to include a requirement of a reasonably close causal relationship between a change in the physical environment and the effect at issue.”¹¹

The “hard look” required by NEPA and conducted by the NRC Staff included an analysis of the waste streams resulting from the proposed GLE Commercial Facility, including low-level waste, waste subject to regulation under the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901 *et seq.* (2012)), and sanitary waste, but did not include an analysis of the

⁸ 42 U.S.C. § 4332(c) (2012).

⁹ 460 U.S. at 774.

¹⁰ 40 C.F.R. § 1508.8 (2012).

¹¹ 460 U.S. at 774.

disposal of high-level waste, which will not be produced by the proposed GLE Commercial Facility.¹² Case law supports this approach. Consistent with the holding in *Metropolitan Edison Co.*, the causal relationship between a proposed uranium enrichment facility and disposal of high-level waste is significantly more tenuous than is the relationship between a power reactor, which produces spent nuclear fuel as a direct result of its operation, or an ISFSI, which stores spent nuclear fuel.

The causal connection between a uranium enrichment facility and the creation, and ultimate disposal, of high-level waste, however, is much more attenuated. An enrichment facility is at least two steps removed from the creation of high-level waste, *i.e.*, the enriched uranium must first be manufactured into fuel for a power reactor, and then it must be irradiated in the power reactor before high-level waste is created. Two other major federal actions—the licensing (and operation) of a fuel fabrication facility and the licensing (and operation) of a nuclear power reactor—must occur before the enriched uranium produced by an enrichment facility results in high-level waste. In other words, but for these intervening events (the subsequent major federal actions), high-level waste would not be produced. Consequently, licensing of a uranium enrichment facility, such as the proposed GLE Commercial Facility, is not a proximate cause for the production of high-level waste, and thus the safety and environmental impacts of the storage of high-level waste are more appropriately considered through the power reactor and ISFSI licensing process.¹³

¹² NRC Guidance likewise does not direct the Staff to perform an analysis of spent fuel storage and disposal (*i.e.*, the back end of the uranium fuel cycle) in environmental impact statements for materials facilities. In accordance with NEPA and 10 CFR Part 51, the Staff prepared a Final Environmental Impact Statement (FEIS) for the proposed GLE Commercial Facility in accordance with NUREG-1748, “Environmental Review Guidance for Licensing Actions Associated with NMSS Programs” (August 2003). See Final Environmental Impact Statement for the Proposed GE-Hitachi Global Laser Enrichment, LLC Facility in Wilmington, North Carolina, NUREG-1938 (Feb. 29, 2012) (ADAMS Accession Nos. ML12047A040 and ML12047A042).

¹³ *E.g.*, 10 C.F.R. § 51.51(a) (2012) contains a reference to Table S-3, Table of Uranium Fuel Cycle Environmental Data, which requires light-water-cooled power reactor applicants to evaluate the contribution of the environmental effects of uranium milling and mining, the production of uranium hexafluoride, isotopic enrichment, fuel fabrication, reprocessing of irradiated fuel, transportation of

At least one Atomic Safety and Licensing Board has reached a similar conclusion—that the impacts of irradiating fuel are to be considered in reactor licensing proceedings, not materials facility licensing proceedings. In the Savannah River Mixed Oxide (MOX) Fuel Fabrication Facility licensing proceeding, the Atomic Safety and Licensing Board found inadmissible a contention that argued that the Environmental Report for the MOX fuel fabrication facility was deficient because it did not contain an adequate analysis of the impacts of irradiating MOX fuel in nuclear power reactors.¹⁴ In its analysis of this contention, the Board stated that “the scope of the instant proceeding is limited to the construction authorization for the MFFF [the MOX fuel fabrication facility], and the impacts of burning MOX fuel in the mission reactors is outside that scope.”¹⁵ Similarly, analyzing the impacts of spent fuel storage and disposal is outside the scope of this licensing proceeding for a proposed uranium enrichment facility.

Furthermore, analysis of the impacts of spent fuel storage and disposal will not be avoided even though they are not dealt with at the enrichment stage. These impacts are considered in the appropriate environmental analysis for an operating license or amendment under Part 50, a combined license or amendment under Part 52, or an ISFSI license or amendment under Part 72. Thus, the D.C. Circuit’s decision vacating the 2010 rulemaking on waste confidence does not have any implications on this proceeding.

radioactive materials and management of low-level wastes and high-level wastes related to uranium fuel cycle activities to the environmental costs of licensing the nuclear power reactor. There is no comparable requirement for materials licensing actions.

¹⁴ *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 439 (2001).

¹⁵ *Id.*

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/Signed (electronically) by/

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Dated at Rockville, Maryland
this 11th day of July, 2012.

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF RESPONSE TO BOARD QUESTION REGARDING THE RECENT D.C. CIRCUIT ORDER VACATING THE 2010 WASTE CONFIDENCE RULE" in the above-captioned proceeding have been served via the Electronic Information Exchange (EIE) this 11th day of July, 2012:

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