

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)	
)	Docket No. 52-033-COL
THE DETROIT EDISON COMPANY)	
(Fermi Nuclear Power Plant, Unit 3))	July 9, 2012
)	

* * * * *

**INTERVENORS' MOTION FOR LEAVE TO FILE A NEW
CONTENTION CONCERNING TEMPORARY STORAGE
AND ULTIMATE DISPOSAL OF NUCLEAR WASTE AT
PROPOSED FERMI 3 NUCLEAR POWER PLANT**

I. INTRODUCTION

Now come Intervenors Beyond Nuclear, *et al.*¹ (hereinafter “Intervenors”), by and through counsel, and pursuant to 10 C.F.R. §§ 2.309(f)(1) and 2.309(f)(2), seek leave to file a new contention which challenges the failure of the Draft Environmental Impact Statement (“DEIS”) for the proposed Fermi 3 nuclear power plant combined license (“COL”) to address the environmental impacts of spent fuel pool leakage and fires as well as the environmental impacts that may occur if a spent fuel repository does not become available. The contention is based on the U.S. Court of Appeals for the District of Columbia Circuit’s recent decision in *State of New*

¹In addition to Beyond Nuclear, the Intervenors include: Citizens for Alternatives to Chemical Contamination, Citizens Environmental Alliance of Southwestern Ontario, Don’t Waste Michigan, Sierra Club (Michigan Chapter), Keith Gunter, Edward McArdle, Henry Newnan, Derek Coronado, Sandra Bihn, Harold L. Stokes, Michael J. Keegan, Richard Coronado, George Steinman, Marilyn R. Timmer, Leonard Mandeville, Frank Mantei, Marcee Meyers, and Shirley Steinman.

York v. NRC, No. 11-1045 (June 8, 2012), which invalidated the Nuclear Regulatory Commission's ("NRC") Waste Confidence Decision Update (75 Fed. Reg. 81,037 (Dec. 23, 2010)) ("WCD") and the NRC's final rule regarding Consideration of Environmental Impacts of Spent Fuel After Cessation of Reactor Operation (75 Fed. Reg. 81,032 (Dec. 23, 2010)) ("Temporary Storage Rule" or "TSR"). *State of New York* vacated the generic findings in 10 C.F.R. § 51.23(a) regarding the safety and environmental impacts of spent fuel storage. As a result, the NRC no longer has any legal basis for § 51.23(b), which relies on those findings to exempt both the agency staff and license applicants from addressing long-term spent fuel storage impacts under NEPA in individual licensing proceedings.

Intervenors recognize that because the mandate has not yet issued in *State of New York*, this contention may be premature. Nevertheless, Intervenors are submitting the contention within 30 days of becoming aware of the court's ruling, in light of Commission precedents judging the timeliness of motions and contentions according to when petitioners became aware of a decision's potential effect on their interests. *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 386 (2002). If the Atomic Safety and Licensing Board determines that this contention is premature, Intervenors request that consideration of the contention be held in abeyance pending issuance of the mandate.

II. FACTUAL BACKGROUND

In 1984, the NRC issued its first WCD, making findings regarding the safety of spent fuel disposal and the safety and environmental impacts of spent fuel storage. Over the several decades that have passed since then, the NRC has updated the WCD. The latest update was issued in December 2010. On June 8, 2012, the U.S. Court of Appeals for the D.C. Circuit took

review of the NRC's 2010 WCD Update and TSR and vacated those rules in their entirety. In the course of reviewing the WCD Update, the court found that the WCD is a "major federal action" under the National Environmental Policy Act ("NEPA"), therefore requiring either a finding of no significant impact ("FONSI") or an environmental impact statement ("EIS"). *Id.*, slip op. at 8. The court also found it was "eminently clear that the WCD will be used to enable licensing decisions based on its findings" because the WCD "renders uncontestable general conclusions about the environmental effect of plant licensure that will apply in every licensing decision." *Id.*, slip op. at 9 (citing 10 C.F.R. § 51.23(b)).

With respect to the WCD's conclusions regarding spent fuel disposal, the court observed that the NRC has "no long-term plan other than hoping for a geologic repository" and that spent reactor fuel "will seemingly be stored on site at nuclear plants on a permanent basis" if the government "continues to fail in its quest" to site a permanent repository. *Id.*, slip op. at 13. Thus, the court concluded that the WCD "must be vacated" with respect to its conclusion in Finding 2 that a suitable spent fuel repository will be available "when necessary." *Id.*, slip op. at 11. In order to comply with NEPA, the court found that the NRC must "examine the environmental effects of failing to establish a repository." *Id.*, slip op. at 12.

With respect to the TSR's conclusions regarding the environmental impacts of temporary storage of spent reactor fuel at reactor sites, the court concluded that the NRC's environmental assessment ("EA") and FONSI issued as part of the TSR "are not supported by substantial evidence on the record" in two respects. First, the NRC had reached a conclusion that the environmental impacts of spent fuel pool leaks will be insignificant, based on an evaluation of past leakage. The court concluded that the past incidence of leaks was not an adequate predictor

of leakage thirty years hence, and therefore ordered the NRC to examine the risks of spent fuel pool leaks “in a forward-looking fashion.” *Id.*, slip op. at 14. In addition, the court found that the NRC’s analysis of the environmental impacts of pool fires was deficient because it examined only the probability of spent fuel pool fires and not their consequences. *Id.*, slip op. at 18-19. “Depending on the weighing of the probability and the consequences,” the court observed, “an EIS may or may not be required.” *Id.*, slip op. at 19.

In remanding the WCD Update and the TSR to the NRC, the court purposely did not express an opinion regarding whether an EIS would be required or an EA would be sufficient. Instead, it left that determination up to the discretion of the NRC. *Id.*, slip op. at 12, 20.

III. CONTENTION

A. Statement of the Contention

The DEIS for the proposed Fermi 3 does not satisfy NEPA, because it does not include a discussion of the environmental impacts of spent fuel storage after cessation of operation, including the impacts of spent fuel pool leakage, spent fuel pool fires, and failing to establish a spent fuel repository, as required by the U.S. Court of Appeals in *State of New York v. NRC*, No. 11-1045 (June 8, 2012). Therefore, unless and until the NRC conducts such an analysis, no license may be issued.

B. The Contention Satisfies the NRC’s Admissibility Requirements in 10 C.F.R. § 2.309(f)(1)

1. Brief Summary of the Basis for the Contention

The contention is based on the United States Court of Appeals for the District of Columbia Circuit’s decision in *State of New York v. NRC*, which invalidated the NRC’s generic findings in 10 C.F.R. § 51.23(a) regarding the safety and environmental impacts of spent fuel storage after cessation of reactor operation with respect to spent fuel pool leakage, pool fires, and the environmental impacts of failing to establish a repository. As a result, the NRC no longer has

any legal basis for § 51.23(b), which relies on those findings to exempt both the agency staff and license applicants from addressing spent fuel storage impacts in individual licensing proceedings.

In their initial Petition to Intervene filed in March 2009 (ADAMS No. ML090680878), Intervenors submitted Contention 2, in which they claimed “There is no technical basis for a finding of ‘reasonable confidence’ that spent fuel can and will be safely disposed of at some time in the future.” Id. at 17. The ASLB overruled Intervenors’ requests either that the contention be held in abeyance or referred immediately to the NRC Commission, saying, it “is not admissible because it challenges a pending NRC policy review and rulemaking.” Memorandum Opinion and Order at 18, *Detroit Edison Company* (Fermi Nuclear Power Plant, Unit 3), LPB 09-16, ASLBP No. 09-880-05-COL-BD01 (July 31, 2009). In addition, the Fermi 3 DEIS (Vol. 1, pp. 687-689) states the following about high level waste disposal:

Current national policy, as found in the Nuclear Waste Policy Act (42 USC 10101 et seq.), mandates that high-level and transuranic wastes be buried at a deep geologic repository, such as the proposed repository at Yucca Mountain, Nevada. No release to the environment is expected to be associated with deep geologic disposal because it has been assumed that all of the gaseous and volatile radionuclides contained in the spent fuel are released to the atmosphere before the disposal of the waste. In NUREG-0116 (NRC 1976), which provides background and context for the Table S-3 values established by the Commission, the NRC staff indicates that these high-level and transuranic wastes will be buried and will not be released to the environment.

As part of the Table S-3 rulemaking, the NRC staff evaluated, along with more conservative assumptions, this zero-release assumption associated with waste burial in a repository, and the NRC reached an overall generic determination that fuel cycle impacts would not be significant.

In 1983, the Supreme Court affirmed the NRC’s position that the zero-release assumption was reasonable in the context of the Table S-3 rulemaking to address generically the impacts of the uranium fuel cycle in individual reactor licensing proceedings (*Baltimore Gas & Electric v National Resources Defense Council*, 462 U.S. 87 (1983)).

Further, in the Commission’s Waste Confidence Decision and rule (10 CFR 51.23(a))(75 FR 81032), the Commission has made the 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. In addition, 10 CFR 51.23(b) applies the generic determination in Section 51.23(a) to provide that 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 combined license or amendment [. . .] is required in any [. . .] environmental impact statement [. . .] prepared in connection with [. . .] the issuance or amendment of a combined license for a nuclear power reactors under parts 52 or 54 of this chapter.

In early 2010, the Secretary of Energy announced the formation of the Blue Ribbon Commission on America's Nuclear Future (BRC). The BRC's charter was to provide recommendations for developing a safe, long-term solution to managing the Nation's used nuclear fuel and nuclear waste. The BRC began releasing draft subcommittee reports in May 2011, and issued a draft report dated July 29, 2011, to the Secretary of Energy. The draft reports acknowledge that the methods of currently storing spent fuel at nuclear power plants are safe, but to ensure safety in the long term, the BRC recommends development of centralized interim spent fuel storage facilities and geologic repositories for ultimate disposal of spent fuel and high-level radioactive waste. The NRC is aware of the BRC's work, has reviewed the BRC draft reports issued to date, and has concluded that these reports do not conflict with the conclusions in this EIS regarding the environmental impact of high-level radioactive waste disposal based on the assessment in Table S-3.

In the context of operating license renewal, Sections 6.2 and 6.4 of NUREG-1437 (NRC 1996) provide additional description of the generation, storage, and ultimate disposal of LLW, mixed waste, and HLW, including spent fuel from power reactors, concluding that environmental impacts from these activities are small. For the reasons stated above, the NRC staff concludes that the environmental impacts of radioactive waste storage and disposal associated with Fermi 3 would be SMALL.

In "Fermi 3 DEIS Volume 2 (Comments made during scoping pertaining to Nuclear Waste)", pp. 550-551, the NRC Staff published these responses:

The safety and environmental effects of long-term storage of spent fuel onsite have been evaluated by the NRC and, as set forth in the Waste Confidence Rule at 10 CFR 51.23, the NRC generically determined that if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within

the first quarter of the twenty-first century and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in any such reactor and generated up to that time. The impact of the uranium fuel cycle, including disposal of low-level radioactive waste and spent fuel, will be considered in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, Table of Uranium Fuel Cycle Environmental Data. Per 10 CFR 51.51 and the guidance in Section 5.7 of NUREG-1555, the NRC staff will rely on Table S-3 as a basis for the impact of uranium fuel-cycle impacts. Health impacts associated with reactor operations will be addressed in Chapters 4 and 5 of the EIS.

The impact of the uranium fuel cycle, including carbon emissions, will be considered in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, Table of Uranium Fuel Cycle Environmental Data. Per 10 CFR 51.51 and the guidance in Section 5.7 of NUREG-1555, the NRC staff will rely on Table S-3 as a basis for the impact of uranium fuel-cycle impacts.

Potential future high-level and low-level radioactive waste disposal facilities are out of the scope of the EIS, which is concerned with the potential environmental effects of construction and operation of the proposed Fermi 3 unit.

Thus to the extent that the Fermi 3 DEIS addresses spent fuel storage impacts, it does not address the concerns raised by the Court in *State of New York*. Before the proposed Fermi 3 can be licensed, those impacts must be addressed.

Intervenors do not currently take a position on the question of whether the environmental impacts of post-operational spent fuel storage should be discussed in an individual EIS or environmental assessment for this facility or a generic EIS or environmental assessment. That question must be decided by the NRC in the first instance. *Baltimore Gas and Electric Co. v. NRDC*, 462 U.S. 87 (1983). Intervenors reserve the right to challenge the adequacy of any generic analysis the NRC may prepare in the future to address the site-specific environmental conditions at Fermi 3. The current circumstances, however, are such that the NRC has no valid

environmental analysis, either generic or site-specific, on which to base the issuance of a license for this facility.

2. The Contention is Within the Scope of the Proceeding

The contention is within the scope of this licensing proceeding because it seeks to ensure that the NRC complies with the NEPA before issuing a COL for Fermi 3. There is no doubt that the environmental impacts of spent fuel storage must be addressed in all NRC reactor licensing decisions. *State of New York*, slip op. at 8 (holding that the WCD is a “predicate” to every licensing decision); *Minnesota v. NRC*, 602 F.2d 412 (D.C. Cir. 1979).

3. The Issues Raised Are Material to the Findings that the NRC Must Make to Support the Action that is Involved in this Proceeding

The issues raised in this contention are material to the findings the NRC must make to support the action that is involved in this proceeding, in that the NRC must render findings pursuant to NEPA covering all potentially significant environmental impacts. *See* discussion above in subsection (2). As such, in the absence of 10 C.F.R. § 51.23(a), it is clear that this contention addresses a material omission in the NRC staff’s environmental review pursuant to NEPA.

4. Concise Statement of Facts of Expert Opinion Support the Contention

This contention is based primarily on law rather than facts. Intervenorors have adequately supported their contention by citing *State of New York* and discussing its legal effect on this proceeding. Intervenorors also rely on the undisputed fact that the NRC has taken no steps to cure the deficiencies in the basis for 10 C.F.R. § 51.23(a) that the Court identified in *State of New York*.

5. A Genuine Dispute Exists with the Applicant on a Material Issue of Law or Fact.

The Intervenor has a genuine dispute with the applicant regarding the legal adequacy of the environmental analysis on which the applicant relies in seeking a COL in this proceeding. Unless or until the NRC cures the deficiencies identified in *State of New York* or the applicant withdraws its application, this dispute will remain alive.

IV. THE CONTENTION IS TIMELY PURSUANT TO 10 C.F.R. § 2.309(f)(2)

The contention meets the timeliness requirements of 10 C.F.R. § 2.309(f)(2), which call for a showing that:

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

Id.

Intervenor satisfies all three prongs of this test. First, the information on which the contention is based -- *i.e.*, the invalidity of 10 C.F.R. § 51.23(b) and the findings on which it is based -- is new and materially different from previously available information. Prior to June 8, 2012, 10 C.F.R. § 51.23 was presumptively valid. Subsequent to the issuance of *State of New York* by the U.S. Court of Appeals, the NRC no longer has a lawful basis for relying on that regulation to exempt itself or license applicants from considering the environmental impacts of post-operational spent fuel storage, including onsite use of pools, casks or other methods, and offsite repository or other storage, in the environmental analyses for individual reactor license

applications. By the same token, the generic analyses in the WCD and the TSR, on which the NRC relied for all of its reactor licensing decisions, are no longer sufficient to support the issuance of a license. Therefore the NRC lacks an adequate legal or factual basis to issue a COL for the proposed Fermi 3.

Finally, the contention is timely because it has been submitted within 30 days of June 8, 2012, the date the U.S. Court of Appeals issued *State of New York*.

V. CONSULTATION CERTIFICATION PURSUANT TO 10 C.F.R. § 2.323(b)

Intervenors certify that on July 6, 2012, they contacted counsel for the DTE/Detroit Edison and the NRC Staff in an attempt to obtain their consent to this Motion. Counsel for the applicant stated that Detroit Edison would oppose this Motion. Counsel for the NRC staff did not respond.

VI. CONCLUSION

For the reasons stated, Intervenors respectfully request that they be granted leave to file their contention.

Respectfully submitted,

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NUCLEAR REGULATORY COMMISSION**

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing “INTERVENORS’ MOTION FOR LEAVE TO FILE A NEW CONTENTION CONCERNING TEMPORARY STORAGE AND ULTIMATE DISPOSAL OF NUCLEAR WASTE AT PROPOSED FERMI 3 NUCLEAR POWER PLANT” have been served on the following persons via Electronic Information Exchange this 9th day of July, 2012:

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