

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Stephen G. Burns, Chairman  
Kristine L. Svinicki  
William C. Ostendorff  
Jeff Baran

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In the Matter of )	
ENTERGY NUCLEAR OPERATIONS, INC. )	Docket Nos. 50-247-LR
(Indian Point Nuclear Generating Units 2 and 3) )	50-286-LR
_____ )	

CLI-15-2

**MEMORANDUM AND ORDER**

This proceeding concerns the application of Entergy Nuclear Operations, Inc. to renew the operating licenses of the Indian Point Nuclear Generating Units 2 and 3 for an additional twenty years. Following an evidentiary hearing, the Atomic Safety and Licensing Board issued Partial Initial Decision LBP-13-13, resolving nine contentions.<sup>1</sup> While we have before us a number of petitions for review of LBP-13-13, our decision today addresses only the State of New York's two petitions for review.<sup>2</sup> New York challenges LBP-13-13 to the extent it resolves

<sup>1</sup> LBP-13-13, 78 NRC 246 (2013). The Board's decision addresses only contentions that the Board earlier designated as "Track 1" contentions, on which a hearing was held in October 2012. See *id.* at 275-76, 278-79. Several "Track 2" contentions remain pending before the Board and will be the subject of a later evidentiary hearing. See *id.*

<sup>2</sup> We also issue today an order granting review of the NRC Staff's and Entergy's appeals of Board decisions addressing contention NYS-35/36. See CLI-15-3, 80 NRC \_\_\_\_ (Feb. 18, 2015) (slip op.).

(continued . . .)

NYS-12C, an environmental contention.<sup>3</sup> New York also challenges a subsequent Board order declining to reconsider LBP-13-13 or to reopen the hearing record on NYS-12C.<sup>4</sup>

NYS-12C challenged the Indian Point severe accident mitigation alternatives (SAMA) analysis, contesting particular decontamination times and decontamination cost assumptions.<sup>5</sup> In LBP-13-13, the Board resolved NYS-12C in favor of the Staff.<sup>6</sup> New York seeks review of the Board's findings. Entergy and the Staff oppose New York's petitions. The State of Connecticut has filed a brief *amicus curiae* supporting New York's petition for review.<sup>7</sup>

We may, as a matter of discretion, grant review of a full or partial initial decision, giving due weight to the existence of a substantial question with respect to any of the considerations outlined in 10 C.F.R. § 2.341(b)(4). We find that the New York petitions raise at least one substantial question warranting further consideration of the decisions on NYS-12C. We therefore grant the New York petitions.<sup>8</sup>

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<sup>3</sup> *State of New York Petition for Review of Atomic Safety and Licensing Board Decision LBP-13-13 with Respect to Consolidated Contention NYS-12C* (Feb. 14, 2014) (New York Petition).

<sup>4</sup> See *State of New York Petition for Review of Atomic Safety and Licensing Board's April 1, 2014 Decision Denying the State's Motion to Reopen the Record and for Reconsideration of the Board's November 27, 2013 Partial Initial Decision Concerning Consolidated Contention NYS-12C* (Apr. 28, 2014) (New York Petition with Respect to Reopening); see also *Order (Denying New York's Motion to Reopen the Record; Setting Deadline for New or Amended Contention)* (Apr. 1, 2014) (unpublished).

<sup>5</sup> No party seeks review of the Board's resolution of NYS-16B, another SAMA analysis contention resolved in LBP-13-13. Contention 16B challenged population estimates; the Board resolved the contention in favor of the Staff. LBP-13-13, 78 NRC at 475-89.

<sup>6</sup> LBP-13-13, 78 NRC at 450-74, 544.

<sup>7</sup> See *State of Connecticut's Motion for Leave to File Brief Amicus Curiae in Support of the State of New York's Petition for Review of the Atomic Safety and Licensing Board's Partial Initial Decision LBP-13-13* (Feb. 14, 2014); *Amicus Brief of the Attorney General of Connecticut* (Feb. 14, 2014). We will address in a future decision the question of Connecticut's participation as an *amicus curiae* under 10 C.F.R. § 2.315(d).

<sup>8</sup> Our decision on review will outline further our grounds for granting the petitions.

New York, Entergy, and the Staff raise a number of complex technical and legal arguments regarding NYS-12C. To aid our review, we direct the parties to provide further briefing on the following questions. In answering the questions, the parties must not introduce any new documents or exhibits; all references shall be limited to submissions already in the record. References to affidavits and exhibits should include page citations.

- 1) The Board in LBP-13-13 stated that the “genesis” of the decontamination time values used in the Indian Point SAMA analysis can be traced to a 1984 report (NUREG/CR-3673) that concluded that a 90-day decontamination time period represents “an average time to complete decontamination efforts following the most severe reactor accident.”<sup>9</sup>

Address the underlying support and reasoning (if available) behind the report’s conclusion that a 90-day time period is an “average” period of time for completing decontamination for “the most severe type of reactor accident.”

- 2) Identify from the record any peer review or similar vetting of the NUREG-1150 values for the decontamination cost inputs for nonfarm land and property (CDNFRM) and the decontamination time inputs (TIMDEC) used in the MACCS2 computer code.
- 3) Providing references to the record, discuss the underlying reasons behind the Staff and Entergy experts’ opinion that the NUREG-1150 CDNFRM and TIMDEC values continue to reflect reasonable estimates for severe accident decontamination times and costs today, including for the heavier (DF of 15) decontamination effort.
- 4) Discuss the appropriateness of performing sensitivity analyses to account for uncertainties in the estimated decontamination times and non-farm decontamination costs, including what might be reasonable CDNFRM and TIMDEC inputs to use in sensitivity analyses for the Indian Point SAMA analysis.
- 5) Would it be appropriate to treat decontamination times and decontamination costs (and related decontamination factors) from an uncertainty analysis standpoint, using a range of values—e.g., smaller values for smaller release accident categories and larger values for the larger release categories? Why or why not?
- 6) Discuss whether, and, if so, how, the SAMA analysis should account for the possibility of potential decontamination times longer than one year.
- 7) Discuss whether the Indian Point analysis contains conservatisms that bound or otherwise compensate for the uncertainty in the decontamination times and non-farm decontamination costs inputs used in the analysis.

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<sup>9</sup> See LBP-13-13, 78 NRC at 469 (referencing Ex. NRC000058, “Economic Risks of Nuclear Power Reactor Accidents,” NUREG/CR-3673 (May 1984)).

- 8) The Indian Point SAMA analysis states that the methodology for cleaning up a nuclear weapons accident that was described in a 1996 Sandia National Laboratory study is “not relevant to clean-up following” a nuclear reactor accident.<sup>10</sup> Nonetheless, the SAMA analysis goes on to describe a comparison of decontamination cost values derived from the study with the decontamination cost values used in the Indian Point analysis. Address to what extent (if any) the comparison to the weapons accident study explains or otherwise substantiates the decontamination cost parameters used in the Indian Point analysis.

Initial briefs shall not exceed 40 pages, exclusive of title page, table of contents or table of authorities, and shall be filed within 40 calendar days of the date of this order. Reply briefs shall not exceed 20 pages, exclusive of title page, table of contents, or table of authorities, and may be filed within 30 calendar days of the initial briefs’ filing. In accordance with 10 C.F.R. § 2.315(d), the State of Connecticut may file an *amicus* brief, not to exceed 20 pages, exclusive of title page, table of contents, or table of authorities. Connecticut may file its brief within the time allowed to the party whose position the brief will support.

IT IS SO ORDERED.<sup>11</sup>

For the Commission

**NRC SEAL**

**/RA/**

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Annette L. Vietti-Cook  
Secretary of the Commission

Dated at Rockville, Maryland  
this 18<sup>th</sup> day of February, 2015.

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<sup>10</sup> See Ex. NYS001331, “Final Report, Generic Environmental Impact Statement for License Renewal of Nuclear Plants,” NUREG-1437, Supplement 38, Vol. 3, regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 (Dec. 2010), App. G at G-23 (referencing Ex. NYS000249, “Site Restoration: Estimation of Attributable Costs from Plutonium-Dispersal Accidents,” SAND96-0957 (May 1996)).

<sup>11</sup> Chairman Burns did not participate in this matter.

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) and 50-286-LR  
(Indian Point Nuclear Generating, )  
Units 2 and 3) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **COMMISSION MEMORANDUM AND ORDER (CLI-15-2)** have been served upon the following persons by Electronic Information Exchange.

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Docket Nos. 50-247-LR and 50-286-LR  
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Office of the Secretary of the Commission

Dated at Rockville, Maryland  
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