

April 28, 2014

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of )  
 )  
ENTERGY NUCLEAR OPERATIONS, INC. ) Docket No. 50-247-LR/50-286-LR  
 )  
(Indian Point Nuclear Generating )  
Units 2 and 3) )

NRC STAFF'S ANSWER TO THE AMICUS BRIEF  
OF THE ATTORNEY GENERAL OF CONNECTICUT

Pursuant to 10 C.F.R. § 2.341(b), the staff of the U.S. Nuclear Regulatory Commission ("Staff" or "NRC Staff") hereby files its answer to the "Amicus Brief of the Attorney General of Connecticut," filed on February 14, 2014.<sup>1</sup> In its Amicus Brief, the Attorney General of Connecticut ("Connecticut") urges the Commission to grant the State of New York's ("New York") petition for review<sup>2</sup> of the Atomic Safety and Licensing Board's ("Board") "Partial Initial Decision (Ruling on Track 1 Contentions)," LBP-13-13, 78 NRC \_\_\_\_ (Nov. 27, 2013), with respect to the Board's resolution of Contention NYS-12C (SAMA Decontamination and Clean-Up Costs).<sup>3</sup>

As the Staff stated in its answer to Connecticut's motion seeking leave to file its Amicus Brief, the Staff does not oppose Connecticut's filing of its amicus brief, inasmuch as Connecticut

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<sup>1</sup> "Amicus Brief of the Attorney General of Connecticut" (Feb. 14, 2014) ("Amicus Brief"), attached to "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) ("Motion").

<sup>2</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's Petition").

<sup>3</sup> *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), LBP-13-13, 78 NRC \_\_\_\_ (Nov. 27, 2013) (slip op.) ("LBP-13-13" or "PID").

could have filed its own petition for review of LBP-13-13 as an interested State in accordance with 10 C.F.R. § 2.315(c).<sup>4</sup> Nonetheless, for the reasons set forth below, the Staff submits that Connecticut's Amicus Brief (a) primarily raises issues that are beyond the scope of Contention NYS-12C, (b) does not address Contention NYS-12C, and (c) fails to show any reason why the Commission should grant New York's petition for review of the Board's decision in LBP-13-13, resolving Contention NYS-12C in favor of the Staff and Entergy Nuclear Operations, Inc. ("Entergy" or "Applicant").<sup>5</sup>

### INTRODUCTION

As noted above, Connecticut is participating in this proceeding as an interested State government.<sup>6</sup> Thus, on September 25, 2008, Connecticut submitted a request to participate as an interested governmental body in the proceeding, and identified six contentions, including Contention NYS-12, as admitted contentions on which it intends to participate.<sup>7</sup> On December 18, 2008, the Board granted Connecticut's request and authorized Connecticut to participate in this proceeding as an interested State government, pursuant to 10 C.F.R. § 2.315(c).<sup>8</sup>

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<sup>4</sup> See "NRC Staff's Answer to State of Connecticut's Motion for Leave to File Brief Amicus Curiae" (Feb. 24, 2014) ("Answer to Motion"), at 1, 2-3, and 4. The Staff notes, however, that the Commission has not requested the filing of briefs *amicus curiae* pursuant to 10 C.F.R. § 2.315(d).

<sup>5</sup> In accordance with the Secretary's Order of February 28, 2014, the Staff is filing its answer to Connecticut's Amicus Brief and New York's Petition simultaneously at this time. See "Order" by the Secretary (Feb. 28, 2014), at 2; "Order (Denying New York's Motion to Reopen the Record; Setting Deadline for New or Amended Contention)" (Apr. 1, 2014).

<sup>6</sup> See Answer to Motion, at 2.

<sup>7</sup> "Request of the State of Connecticut for an Opportunity to Participate as an Interested Government Body in Proceeding and Hearing on Relicensing of Indian Points Units 2 and 3" (Sept. 25, 2008). Connecticut had previously filed a petition for leave to intervene in the proceeding, which was denied for failure to state an admissible contention. *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), LBP-08-13, 68 NRC 43, 161-66 (2008).

<sup>8</sup> "Board Memorandum and Order (Authorizing Interested Governmental Entities to Participate in this Proceeding)" (Dec. 18, 2008) (unpublished), at 2.

Following the Board's admission of its initial Contention NYS-12 for litigation in this proceeding, New York thrice amended Contention NYS-12, culminating in its February 2011 submittal of Contention NYS-12C.<sup>9</sup> On June 21, 2011, the Board admitted Contention NYS-12C and consolidated it with the previous admitted versions thereof (Contention NYS-12/12A/12B).<sup>10</sup> As admitted by the Board, Contention NYS-12C challenges certain aspects of Entergy's Severe Accident Mitigation Alternatives ("SAMA") analysis, which the Staff evaluated and approved in its Final Supplemental Environmental Impact Statement ("FSEIS") for license renewal of Indian Point Units 2 and 3 ("IP2" and "IP3").<sup>11</sup> More specifically, Contention NYS-12C asserts that Entergy's SAMA analysis underestimates decontamination and clean-up costs in the New York City metropolitan area; as explained by the Board, the focus of this contention pertains to Entergy's use of certain input parameters from NUREG-1150 in its MACCS2 code SAMA analysis.<sup>12</sup> In particular, as litigated by New York, the contention challenges Entergy's use of the TIMDEC and CDNFRM input parameters in its SAMA analysis, and asserts that the SAMA analysis was not sufficiently site-specific.<sup>13</sup>

On December 21, 2011, New York filed its initial statement of position, exhibits, and the testimony of its witness; on March 30, 2012, Entergy and the Staff filed their statements of position, exhibits, and the testimony of their witnesses; and on June 29, 2012, New York filed a revised statement of position, additional exhibits, and rebuttal testimony. Connecticut did not

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<sup>9</sup> "State of New York New Contention 12-C Concerning NRC Staff's December 2010 Final Environmental Impact Statement and the Underestimation of Decontamination and Clean Up Costs Associated with a Severe Reactor Accident in the New York Metropolitan Area" (Feb. 3, 2011).

<sup>10</sup> "Memorandum and Order (Ruling on Pending Motions for Leave to File New and Amended Contentions)" (July 6, 2011) (unpublished), at 3-9.

<sup>11</sup> NUREG-1437, Supplement 38, Vols. 1-3, Final Report, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3" (Dec. 2010) ("FSEIS") (Ex. NYS000133A-J).

<sup>12</sup> LBP-13-13, slip op. at 260-61, 271.

<sup>13</sup> See *id.* at 271-80.

file any testimony or exhibits, or any statement of position that specifically addressed Contention NYS-12C (or any other contention).

On June 28, 2012, Connecticut filed a Statement of Position, in which it set out various generalized concerns regarding (a) the potential impacts to Connecticut of a severe accident at Indian Point Units 2 and 3, including water resources and the clean-up of contaminated areas; (b) the environmental impacts of an evacuation; (c) the impacts of relocating large numbers of persons in the event of an evacuation; (d) the consequences of a spent fuel pool or storage cask accident at the site; and (e) an assertion that such matters had not been considered for IP2/IP3 license renewal as required by the National Environmental Policy Act of 1969, as amended (“NEPA”).<sup>14</sup>

On July 30, 2012, Entergy and the Staff filed responses to Connecticut’s Statement, in which they pointed out, among other things, that the issues raised in that Statement, although of concern to Connecticut, “are not relevant to any admitted contention in this proceeding and are not supported by any testimony or other evidence.”<sup>15</sup> Connecticut filed a reply to the Staff and Entergy, in which it again did not specify any particular contention to which its Statement applied; rather, Connecticut asserted that its Statement “supports the position taken by New York as to the [five] specific contentions” of interest to Connecticut, that “the primary thrust of Connecticut’s [Statement] relates to failures in the NEPA analysis in the relicensing of Indian

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<sup>14</sup> “Statement of Position of the Attorney General of Connecticut” (“Statement”) (June 28, 2012), *passim*.

<sup>15</sup> See (1) “NRC Staff’s Response to the Statement of Position of the Attorney General of Connecticut” (July 30, 2012), at 1, *cf. id.* at 5; (2) “Entergy’s Response to the Statement of Position of the Attorney General of Connecticut” (July 30, 2012), at 1, 6, 8.

Point,” and that “the [five] specifically identified admitted contentions also prominently involve unresolved NEPA issues.”<sup>16</sup>

Evidentiary hearings on Contention NYS-12C were held on October 17 and 18, 2012. At the hearing, Entergy, New York and the Staff presented witnesses, introduced evidence, and conducted limited questioning of the witnesses after the Board had completed its questioning. Connecticut did not participate in the hearing; it did not present witnesses or evidence, and it did not question the witnesses.<sup>17</sup>

On November 27, 2013, the Board issued its PID, in which it, *inter alia*, resolved Contention NYS-12C in favor of Entergy and the Staff. In this regard, the Board concluded:

We find that a preponderance of the evidence submitted regarding this contention supports the conclusion that Entergy’s SAMA analysis is sufficiently site specific and a reasonable method under NEPA standards given that key input parameters are per capita based and multiplied by a site-specific population distribution. Furthermore, Entergy’s use of and the NRC’s approval of the TIMDEC and CDNFRM values was reasonable and satisfies the requirements under NEPA and 10 C.F.R. § 51.53(c)(3)(ii)(L). It was reasonable for Entergy to use the selected TIMDEC values given its technical basis and what the values represent. Additionally, it was not unreasonable for Entergy to rely on the CDNFRM value given the level of review of NUREG-1150 and its predecessor documents. Accordingly, NYS-12C is resolved in favor of the NRC Staff and the issues raised by this contention do not prevent the Commission from issuing the requested renewal licenses.<sup>18</sup>

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<sup>16</sup> “State of Connecticut’s Reply to Applicant’s Response and Response of NRC Staff to the Statement of Position of the Attorney General of Connecticut” (Aug. 10, 2012), at [unnumbered] 2. The Board granted Connecticut’s request for leave to file this reply, stating that it “will give Connecticut’s Statement of Position and Supplementary Filing “the appropriate weight as a non-evidentiary filing.” “Order (Granting the State of Connecticut’s Motion for Leave to File Reply)” (Aug. 21, 2012), at 2.

<sup>17</sup> See *generally*, Transcript (“Tr.”) at 1780 – 2387.

<sup>18</sup> LBP-13-13, slip op. at 293. As stated by the Board, “CDNFRM” defines the non-farmland decontamination cost per individual for each level of decontamination modeled in the MACCS2 code, while “TIMDEC” defines the time required for completion of each of the decontamination levels. *Id.* at 272. New York’s challenge to Entergy’s SAMA analysis focused principally on these two inputs to the MACCS2 code, and the Board’s decision likewise focused on these two inputs. See *id.* at 272-73.

On February 14, 2014, New York filed its petition for review of LBP-13-13, concerning the Board's resolution of Contention NYS-12C.<sup>19</sup> Also on February 14, 2014, Connecticut filed its Amicus Brief, in support of New York's Petition.

### DISCUSSION

In its Amicus Brief, Connecticut raises many of the same issues and concerns that it identified in its Statement of Position, filed on June 28, 2012. Thus, Connecticut asserts that the Indian Point facility is located close to the Connecticut border, that one-third of Connecticut's population is located within the facility's 50-mile ingestion pathway emergency planning zone ("EPZ"), that Indian Point is located within one of the most densely populated regions of the United States, and that an accident or attack at Indian Point that results in a release of wind driven radionuclides could adversely impact the health and safety of its residents.<sup>20</sup> Further, Connecticut states that an accident at Indian Point could adversely affect Connecticut's economic resources (including factories, office buildings, and real property values), and its surface and drinking water resources.<sup>21</sup> In addition, Connecticut expresses concern regarding the availability of funding under the Price-Anderson Act to decontaminate and remediate affected areas and resources;<sup>22</sup> evacuation of areas beyond the 10-mile plume exposure pathway EPZ and self-evacuation by persons who are not directed to evacuate; and the consequences of the Fukushima, Chernobyl, Hurricane Katrina, and Hurricane Rita disasters.<sup>23</sup>

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<sup>19</sup> The Staff is filing, simultaneously herewith, a separate answer to New York's Petition. See "NRC Staff's Answer to 'State of New York Petition for Review of Atomic Safety and Licensing Board Decision LBP-13-13 with Respect to Consolidated Contention NYS-12C'" (Apr. 28, 2014).

<sup>20</sup> Amicus Brief, at [unnumbered] 2, 4.

<sup>21</sup> *Id.* at 5.

<sup>22</sup> *Id.*

<sup>23</sup> *Id.* at 6.

As the Staff stated in its response to Connecticut's motion for leave to file its Amicus Brief, the concerns described above exceed the scope of Contention NYS-12C and/or are beyond the proper scope of this license renewal proceeding.<sup>24</sup> Further, with respect to those issues, Connecticut points to nothing in Entergy's SAMA analysis or the Staff's evaluation of that analysis in the FSEIS that Connecticut believes is deficient. Moreover, Connecticut fails to link these stated concerns to any finding or conclusion by the Board in LBP-13-13 that Connecticut may believe is erroneous and warrants review. Accordingly, Connecticut's assertion of those concerns in its Amicus Brief does not demonstrate any error by the Board, and does not warrant Commission review of LBP-13-13.

In one paragraph of its Amicus Brief, Connecticut makes several generalized references to issues raised by New York in Contention NYS-12C. In this respect, Connecticut states that it "shares the concerns expressed by New York concerning the integrity of [the] input values used in the computer analysis for the required site specific review of consequences, and mitigation alternatives."<sup>25</sup> Further, Connecticut asserts that the inputs do not adequately account for the cost of effectively decontaminating its cities, and that "[t]he input values appear to lack primary support, or are based on out-of-date assumptions and documents."<sup>26</sup> Connecticut, however, provides no evidentiary support for any of these assertions, and does not demonstrate any error by the Board in its decision. Those assertions therefore do not show that review of LBP-13-13 is warranted.

Finally, Connecticut asserts that "some impacts, such as the cost of replacement or remediation of drinking water resources critical to human life, the remediation of surface water resources, or permanent salary and economic loss were never considered at all. Hearing

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<sup>24</sup> Answer to Motion, at 3-4.

<sup>25</sup> Amicus Brief, at [unnumbered] 5.

<sup>26</sup> *Id.*

Transcript at 2278, 2285, 1975.”<sup>27</sup> In this regard, Connecticut appears to be referring to testimony by the Staff’s witnesses, that salary losses for 20 weeks, rather than permanent salary losses, are captured by the NUREG-1150 input parameter,<sup>28</sup> and that the MACCS2 code does not model the migration of contaminants through groundwater<sup>29</sup> or the economic value of water losses.<sup>30</sup> Connecticut does not address, however, the substantial evidence of record explaining how the MACCS2 analysis considered lost salaries,<sup>31</sup> nor does it provide any reason to believe that the MACCS2 code should have assumed that all displaced workers would suffer permanent job losses. Similarly, Connecticut does not address the evidence showing that the MACCS2 inputs afforded consideration to the nature of the Indian Point site on a site-specific and regional-specific basis, in calculating real property decontamination costs,<sup>32</sup> as well as costs associated with drinking water contamination (which the MACCS2 code accounts for as radiological doses).<sup>33</sup> Connecticut fails to explain why explicit consideration of groundwater migration or further consideration of real property decontamination costs was necessary in light of this evidence. Indeed, the evidence supports a determination that the MACCS2 assumptions in this regard were reasonable. In sum, Connecticut’s Amicus Brief does not show any reason

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<sup>27</sup> *Id.*

<sup>28</sup> Tr. at 1975.

<sup>29</sup> Tr. at 2278.

<sup>30</sup> Tr. at 2284-85.

<sup>31</sup> *See, e.g.*, Tr. at 2210-15, 2306-09.

<sup>32</sup> *See, e.g.*, Tr. at 2065-70, 2142, 2166, and 2258; Letter from F. Dacimo (Entergy) to NRC Document Control Desk, “Reply to Request for Additional Information Regarding License Renewal Application - Severe Accident Mitigation Alternatives Analysis” (Feb. 5, 2008) (NL-08-28) (Ex. ENT000460), Attachment 1, pp. 37-38 of 59. Indeed, the MACCS2 code may overestimate the cost of decontaminating densely populated areas. Tr. 2123-24.

<sup>33</sup> *See, e.g.*, Tr. at 2277-85, 2380.

to disturb the Board's determination that the methodology used in Entergy's SAMA analysis was reasonable under NEPA.<sup>34</sup>

### CONCLUSION

For the reasons set forth above, Connecticut's Amicus Brief fails to demonstrate any error, much less "clear error", in the Board's resolution of Contention NYS-12C. The Staff respectfully submits that the Board's decision resolving this contention in favor of the Applicant and Staff should be affirmed.

Respectfully submitted,

**/Signed (electronically) by/**

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Dated at Rockville, Maryland  
this 28<sup>th</sup> day of April, 2014

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<sup>34</sup> LBP-13-13, slip op. at 289, 291 and 293.

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CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the foregoing "NRC STAFF'S ANSWER TO THE AMICUS BRIEF OF THE ATTORNEY GENERAL OF CONNECTICUT," dated April 28, 2014, have been served upon the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 28th day of April, 2014.

**/Signed (electronically) by/**

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Dated at Rockville, Maryland  
this 28<sup>th</sup> day of April, 2014