

July 22, 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF'S ANSWER TO STATE OF NEW YORK'S  
MOTION FOR LEAVE TO SUBMIT FOUR ADDITIONAL  
EXHIBITS ON CONTENTION NYS-5 (BURIED PIPING AND TANKS)

INTRODUCTON

Pursuant to 10 C.F.R. § 2.1209 and the Atomic Safety and Licensing Board's ("Board") Order of July 9, 2013,<sup>1</sup> the staff of the U.S. Nuclear Regulatory Commission ("Staff") hereby responds to the State of New York's ("New York") motion for leave to submit four additional exhibits on Contention NYS-5 (Buried Piping and Tanks), filed on June 10, 2013,<sup>2</sup> which the Board granted in its Order of June 12, 2013.<sup>3</sup>

For the reasons set forth below, the Staff submits that New York's Motion incorrectly characterizes the record on Contention NYS-5, that the exhibits are not material to the Board's consideration of this contention, and that the contention should be resolved in the manner set forth in the Staff's previously-filed proposed findings of fact and conclusions of law on

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<sup>1</sup> "Order (Denying Motions for Reconsideration; Granting Entergy's Motion)" (July 9, 2013), at 3-4.

<sup>2</sup> "State of New York Motion for Leave to Submit Recently Disclosed Entergy Documents as Additional Exhibits Concerning Contention NYS-5" ("Motion") (June 10, 2013).

<sup>3</sup> "Order (Granting New York's Motions, Denying Clearwater's Motion, and Denying CZMA Motions)" (June 12, 2013) at 3, *reconsideration denied* (July 9, 2013).

Contention NYS-5.<sup>4</sup>

### DISCUSSION

In its Motion, New York sought the admission of Exhibits NYS000477, NYS000478, NYS000479, and NYS000480. These exhibits consist of four documents that the Applicant disclosed in May 2013, regarding recent inspections it had conducted of buried piping at Indian Point Units 2 and 3. Specifically, these were as follows:

- Exhibit NYS000477 -- a “Condition Report” and related “Corrective Action,” pertaining to coating degradation and surface corrosion found during a buried piping inspection conducted on August 22, 2010;<sup>5</sup>
- Exhibit NYS000478 – a “Pipe/Tank Coating Visual Inspection Checklist” regarding an “Underground Piping and Tanks General Visual Inspection” of the IP2 8-inch HP Fire Protection Line, conducted under EN-EP-S-002-Multi , Rev. 1 (Ex. ENT000600) on October 10, 2012, in which rocks were found to be in contact with buried piping during a buried piping inspection;<sup>6</sup>

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<sup>4</sup> See (1) “NRC Staff’s Revised Proposed Findings of Fact and Conclusions of Law, Part 2: Contention NYS-5 (Buried Piping and Tanks)” (March 22, 2013, as revised April 22, 2013) (“Staff Proposed Findings” or “Staff PFF”); (2) “NRC Staff’s Reply Proposed Findings of Fact and Conclusions of Law on Contention NYS-5 (Buried Piping and Tanks)” (May 3, 2013) (“Staff Reply Findings” or “Staff PFF”); (3) “Errata to NRC Staff’s Proposed and Reply Findings of Fact and Conclusions of Law on Contention NYS-5 (Buried Piping and Tanks)” (May 7, 2013); and (4) “NRC Staff’s Further Errata to Its Proposed and Reply Findings of Fact and Conclusions of Law on Contention NYS-5 (Buried Piping and Tanks)” (May 23, 2013).

<sup>5</sup> Ex. NYS000477, Condition Report CR-IP2-2012-05324 (Aug. 22, 2012); Corrective Action CR-IP2-2012-05324 (Sept. 11, 2012). The Condition Report indicates that during an inspection of SW return line 463, “[c]oating degradation (including cracking, delamination, localized separation from the pipe OD) was evident along the entire length of the exposed piping, with surface corrosion at the areas of coating separation.” The Corrective Action Report states that the inspection was expanded to include the adjacent 8-inch City Water Line and 8-inch HP fire protection line; the areas with degraded coatings were inspected by UT, were found to exceed nominal wall thickness, and were then recoated to current requirements; further, the inspection results “will be captured in the Underground Piping and Tank program and trended per program requirements.”

<sup>6</sup> Exhibit NYS000478, Attachment 7.2, “Pipe/Tank Coating Visual Inspection Checklist,” Sheet 1 of 2 (May 23, 2013) (a portion of the HP Fire Protection lines was excavated and visually inspected on October 10, 2012. “Rocks were in contact with the wrap but no damage was observed. The rocks were small (i.e., < 2.0” in diameter.” There were no large rocks in contact with the pipe.” “The entire inspected length of coating had no signs of coating degradation. The coating was observed to be intact, with no voids in the coating, or blistering, peeling, flaking, separation, etc. Further the coating was solid to the touch (no soft spots, or pockets). However, there were orange stains observed on several locations on the exterior” . . . .

- Exhibit NYS000479 – a “Pipe/Tank Coating Visual Inspection Checklist” regarding an “Underground Piping and Tanks General Visual Inspection” of the IP2 8-inch City Water Line conducted under EN-EP-S-002-Multi , Rev. 1 (Ex. ENT000600) on October 10, 2012, in which were found to be in contact with buried piping during a buried piping inspection;<sup>7</sup> and
- Exhibit NYS000480 – a “Pipe/Tank Coating Visual Inspection Checklist” regarding an “Underground Piping and Tanks General Visual Inspection” of the IP2 8-inch City Water Line conducted under EN-EP-S-002-Multi , Rev. 1 (Ex. ENT000600) on December 13, 2012, in which rocks were found to be present, but not in contact with the pipe wrap, during a buried piping inspection.<sup>8</sup>

In arguing for the admission of these exhibits, New York asserted that “[t]he documents support Dr. Duquette’s testimony that rocks are present in backfill at Indian Point and contribute to cracked coating and corrosion, warranting the application of cathodic protection.” Motion at 1-2. Further, New York asserted that “neither Staff nor Entergy’s witnesses acknowledged the risk that rocks in backfill are posing to coated buried pipes at Indian Point”; further, New York contested Mr. Holston’s testimony (Ex. NRCR20016 at A18), that “[r]ecent excavated direct visual examinations of buried pipe have demonstrated that the coatings are in acceptable condition and the backfill in the vicinity of the pipe has not damaged the coatings,” stating that “[t]he Proposed Exhibits undercut that testimony and demonstrate that this statement is not correct.” *Id.* at 2. These assertions are without merit.

First, contrary to New York’s claims, none of its four new exhibits indicate that any damage was caused to buried piping by rocks in the backfill. In this regard, Exhibit NYS000477 (regarding an inspection of SW return line 463), indicates that “[c]oating degradation (including cracking, delamination, localized separation from the pipe OD) was evident along the entire

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<sup>7</sup> Ex. NYS000479, Attachment 7.2, “Pipe/Tank Coating Visual Inspection Checklist,” Sheet 1 of 2 (May 23, 2013) (a portion of the 8-inch City Water Line # 1502 return to EDGs was excavated and visually inspected; “Rocks were in contact with the wrap but no damage was observed. The rocks were small (i.e., < 2.0” in diameter.” There were no large rocks in contact with the pipe.”

<sup>8</sup> Ex. NYS000480, Attachment 7.2, “Pipe/Tank Coating Visual Inspection Checklist,” Sheet 1 of 2 (Apr. 12, 2013) (a portion of the 8-inch City Water Line # 1502 supply to the AFW pumps was excavated and visually inspected; “No rocks were observed to be in contact with the pipe. However, some rocks were found in the backfill”; and “[s]ome areas along inspected length of pipe were observed to have localized coating cracking and signs of rust.”

length of the exposed piping, with surface corrosion at the areas of coating separation”; however, there is no indication that rocks were found in this area, or that any coating damage was found to have been caused by rocks in the backfill.<sup>9</sup> Further, while Exhibits NYS000478, NYS000479 and NYS000480 indicate that rocks were found in the backfill in those inspections (sometimes in contact with the coatings), no coating damage was found to have been caused by those rocks.<sup>10</sup>

Second, contrary to New York’s claims regarding the testimony of the witnesses who appeared for the Staff and Entergy Nuclear Operations, Inc. (“Entergy” or “Applicant”), the record shows that (a) Staff witness Holston recognized that rocks had been discovered in the backfill at Indian Point related to the 2009 leak of the IP2 CST return line, (b) the presence of rocks in the backfill represents a potentially deleterious condition that could damage pipe coatings, (c) the IP2/IP3 inspection program was augmented by an increased number of inspections to account for the discovery of deleterious materials in the backfill, (d) the Applicant’s augmentation of its inspection program due to the discovery of rocks in the backfill was consistent with the Staff’s guidance in LR-ISG-2011-03 (Ex. NRC000162) for sites that lack cathodic protection, and (e) if degraded conditions are discovered, the Applicant would be required to take appropriate corrective actions. See, e.g., “NRC Staff’s Testimony of Kimberly J. Green and William C. Holston Concerning Contention NYS-5 (Buried Pipes and Tanks)” (Dec. 7, 2012) (Ex. NRCR20016), at 34-37, 52-54, and 59; SER Supplement 1 (Ex. NYS000160) at 3-4; and LR-ISG-2011-03 (Ex. NRC000162) at 3.<sup>11</sup>

Third, New York’s four new exhibits are not material to the Board’s consideration of this contention. Contention NYS-5 asserts that the aging management program (“AMP”) for buried

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<sup>9</sup> See n. 5, *supra*.

<sup>10</sup> See nn. 6-8, *supra*.

<sup>11</sup> These matters are summarized in Staff Proposed Findings ¶¶ 2.59, 2.128, 2.131 (and n. 62), 2.166, 2.177, 2.178, and 2.195 - 2.198; and Staff Reply Findings ¶¶ 2.251, 2.271, and 2.272.

pipng and tanks at Indian Point Units 2 and 3 is inadequate to manage the effects of aging for buried pipes and tanks containing radioactive fluids, due to external corrosion. The record shows, however, that the Indian Point AMP incorporates numerous excavated, direct visual inspections of buried piping, and was augmented due to the discovery of rocks in the backfill, consistent with the Staff's guidance in LR-ISG-2011-03.<sup>12</sup> The fact that Exhibits NYS000477-NYS000480 indicate that rocks were recently discovered in the backfill at IP2/IP3 is not inconsistent with the existing record and is not material to a decision regarding the adequacy of the AMP for buried piping and tanks at IP2/IP3.

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<sup>12</sup> As indicated in Staff Counsel's letter to the Board of June 21, 2013, the Staff has sought further information from the Applicant regarding this issue:

As stated in letter NL-09-106 dated July 27, 2009, the Indian Point 2 auxiliary feedwater return line to the condensate storage tank developed a leak due to deleterious materials in the backfill. Subsequent inspections of excavated buried pipe did not reveal debris in the backfill. However, several recent inspections conducted in December 2012 (i.e., 6-inch fire protection, 1.5-inch weld channel line, 2-inch city water, 24-inch service water lines) revealed that rocks were present in the backfill, although not in contact with the pipe. In one of the three service water lines excavations, debris was found in the backfill.

\* \* \*

2. Recent excavated direct visual inspections of buried piping at the site found rocks in the backfill (a non-conforming condition) at a number of inspection sites. Although no damage to piping or pipe coatings was found to be associated with these conditions, the multiple instances in which rocks were found in the backfill suggests that an extent of condition evaluation may be warranted if future buried piping inspections detect deleterious materials in the backfill that have damaged the coating.

\* \* \*

2. State what criteria will be used to conduct an extent of condition evaluation if non-conforming backfill is found to cause damage to buried piping coatings.

RAI 3.0.3.1.2-4, at 1-3, in "Requests for Additional Information, Set 2013-02," attached to letter from Yoira Diaz-Sanabria (NRC) to Vice President (Entergy) (June 12, 2013) (available at ADAMS Accession No. ML13162A606), enclosed as Attachment 2 to letter from Sherwin E. Turk to the Board (June 21, 2013). The Applicant's response to this RAI is expected to be submitted "this week." See Applicant's Supplemental Filing Related to Contention NYS-5 (July 22, 2013), at 5

CONCLUSION

For the foregoing reasons, the Staff respectfully submits that New York's new exhibits are not material to a decision on this contention, and that Contention NYS-5 should be resolved in the manner set forth in the Staff's previously-filed proposed findings of fact and conclusions of law.

Respectfully submitted

**/Signed Electronically by/**

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Dated at Rockville, Maryland  
this 22<sup>nd</sup> day of July 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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ENTERGY NUCLEAR OPERATIONS, INC.	)	Docket Nos. 50-247-LR/ 50-286-LR
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CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R § 2.305 (as revised), I hereby certify that copies of the foregoing "NRC STAFF'S ANSWER TO STATE OF NEW YORK'S MOTION FOR LEAVE TO SUBMIT FOUR ADDITIONAL EXHIBITS ON CONTENTION NYS-5 (BURIED PIPING AND TANKS)," dated July 22, 2013, have been served upon the Electronic Information Exchange (the NRC's E-Filing System), in the above-captioned proceeding, this 22<sup>nd</sup> day of July, 2013.

**/Signed (electronically) by/**

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