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John A Ventosa
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April 14, 2014

NL-14-053

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: Response to Request For Additional Information Regarding Emergency Diesel Generator Fuel Oil Storage Supplies (TAC No. ME9264)
Indian Point Unit Number 3
Docket No. 50-286
License No. DPR-64

REFERENCES:
1. Entergy Letter NL-12-097 to NRC Regarding License Amendment Request for Emergency Diesel Generator Fuel Oil System, dated August 14, 2012 (Accession No. ML12234A250)
2. Entergy Letter NL-13-057 to NRC Regarding Response to Request For Additional Information Regarding Emergency Diesel Generator Fuel Oil System (TAC No. ME9264), dated April 15, 2013
3. Entergy Letter NL-13-102 to NRC Regarding Response to Request For Additional Information Regarding Emergency Diesel Generator Fuel Oil Supplies (TAC No. ME9264), dated July 23, 2013
4. NRC Letter to Entergy, Request for Additional Information Regarding Emergency Diesel Generator Fuel Oil Storage Requirements, (TAC No. ME9264), Dated March 21, 2014

Dear Sir or Madam:

Entergy Nuclear Operations, Inc, (Entergy) requested a License Amendment, References 1, to Operating License DPR-64, Docket No. 50-286 for Indian Point Nuclear Generating Unit No. 3 (IP3). This was supplemented in two responses (Reference 2 and 3) to requests for additional information. The proposed changes revise Technical Specification (TS) Limiting Condition for Operation (LCO) 3.8.3, "Diesel Fuel Oil, and Starting Air," to relocate specific numerical values for fuel oil storage volumes from the TSs to the TS Bases in accordance with Technical Specification Task Force (TSTF) 501 Revision 1. The NRC staff identified the need for additional information to complete their review in Reference 4. Entergy is providing additional

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information in response to this request in Attachment 1 and providing revised marked up TS pages in Attachment 2 .

There are no new commitments being made in this submittal.

If you have any questions or require additional information, please contact Mr. Robert Walpole, Manager, Regulatory Affairs at (914) 254-6710.

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 14, 2014

Sincerely,

JAV/sp

Attachment: 1. Response to Request For Additional Information Regarding Emergency Diesel Generator Fuel Oil System

2. Markup of Technical Specification Pages for Proposed Changes Regarding Emergency Diesel Generator Fuel Oil System

cc: Mr. Douglas Pickett, Senior Project Manager, NRC NRR DORL
Mr. William M. Dean, Regional Administrator, NRC Region 1
NRC Resident Inspectors Office
Mr. John B. Rhodes, President and CEO, NYSERDA
Ms. Bridget Frymire, New York State Dept. of Public Service

ATTACHMENT 1 TO NL-14-053

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

REGARDING EMERGENCY DIESEL GENERATOR FUEL OIL SYSTEM

ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3
DOCKET NO. 50-286

Response to NRC RAI

By letter dated August 14, 2012, and supplemented in letter dated August 17, 2012, Entergy Nuclear Operations, Inc, (Entergy) submitted a license amendment request for U.S. Nuclear Regulatory Commission (NRC) review that would revise the Technical Specifications (TSs) for Indian Point Unit No. 3 (IP3). The proposed changes revise Technical Specification (TS) Limiting Condition for Operation (LCO) 3.8.3, "Diesel Fuel Oil, and Starting Air," to relocate specific numerical values for fuel oil storage volumes from the TSs to the TS Bases in accordance with Technical Specification Task Force (TSTF) 501 Revision 1. On March 3, 2013 the NRC staff identified the need for additional information to complete their review. The licensee provided a response to staff request for additional information (RAI) by letter dated April 15, 2013. On March 21, 2014 the NRC staff issued another request for additional information regarding the April 15, 2013 response. Additional information and clarification to our April 15, 2013 letter follows:

STSB- 01 Question 1

Refer to the responses to RAI-EPTB-3 for the following questions.

a. What is the specific requirement to maintain the transfer trailer readily available to provide timely FO transfer capability under all weather and radiological conditions?

b. If the FO transfer trailer (with required fittings and connections) is removed from the site for any reason, explain how the FO transfer capability is required to be maintained based upon an assumed resupply in about 24-hours.

c. Please identify the specific requirement to maintain the licensed commercial driver, currently provided by the Rad Waste Department, and explain the contingency action if this licensed individual is not available.

d. The response states that: "Based on the anticipated resupply in about 24 hours, the driver is not required to staff the ERO in 60 minutes." Please identify the requirement to maintain a minimum duration of FO in the EDG FOSTs to justify an assumed 24-hour resupply. (Note: Response to RAI-STSB-1, proposed Condition A, allows continued operation for up to 48-hours with the FOST less than a 40-hour supply).

e. Does the driver have other ERO concurrent duties and, if so, how will it be assured that the driver will be available to perform the EDG FOST resupply in the stated 24-hours?

f. Explain how the FO resupply operation will be assured under potentially adverse site radiological conditions within the first 24-hours and under emergency conditions (e.g., loss of off-site power) when the ERO is not to be staffed (i.e., NOED)

Response

a. The response on April 15, 2013 (NL-13-057) said

"The transfer trailer is typically located outside at the Maintenance Training Center. Operators are trained on its location."

"The personnel would be supplied by the ERO, or by the watch when conditions (e.g., storms, tornado, etc.) require such assurance as part of refilling the fuel oil storage tanks."

Additional information is being provided as follows:

The transfer trailer is stored by the Maintenance Training Facility. Project Construction is responsible for ensuring the trailer is inspected, insured and registered. A database is used to track inspection and registration renewal dates to ensure timely completion. Insurance is auto renewed as part of the Corporate vehicle insurance plan. An operations periodic task (OPT Q0), controlled under a model work order, is performed each quarter to inspect the trailer to ensure all seals are intact (used for trailer materials inventory) and inspect the trailer for oil leaks. Since the trailer is maintained in operable condition, the availability of the trailer would not be changed due to weather and radiological conditions. A decision to transport oil could be affected on a short term basis by weather conditions (e.g., during a tornado no effort to transfer fuel would be made but this is a short term event, hurricane conditions would limit use of the trailer to those periods where conditions are not at a peak). As in all accident cases, the radiological conditions are assessed by radiological personnel before sending people into an area. For example, during a heavy release there may be a constraint put on the movement of fuel. The radiological characteristics of a Chapter 14 accident and release would not preclude transfer in 24 hours.

b. The response on April 15, 2013 (NL-13-057) said:

"The maximum capacity of the current Fuel Oil Transfer Trailer is 6800 gallons. The required connections and fittings are contained on the trailer to match up with connections at the RFO Tanks and EDG FOSTs."

"Maintenance support is responsible for maintaining the NYS Inspection of all IPEC vehicles current."

Additional information is being provided as follows:

The trailer is moved when it is used to transfer oil per procedure 2-SOP-29.20. The majority of the time the trailer remains in storage by the Maintenance Training Facility. During the yearly inspection the trailer is taken to a licensed inspection station nearby. The inspection may take more than 24 hours but procedure 2-SOP-29.20 requires a trailer to be maintained on site (e.g., rent a replacement vehicle when the fuel oil transfer trailer is removed from the site for routine maintenance and inspections).

c. The response on April 15, 2013 (NL-13-057) said:

"The personnel would be supplied by the ERO, or by the watch when conditions (e.g., storms, tornado, etc.) require such assurance as part of refilling the fuel oil storage tanks.

"Rad Waste Department provides a Commercial Drivers Licensed individual. This is not a

scheduled position. This position would be supplied by the ERO. Based on the anticipated resupply in about 24 hours, the driver is not required to staff the ERO in 60 minutes."

Additional information is being provided as follows:

IPEC maintains a task qualification matrix that identifies personnel who are qualified with a commercial drivers license. There are currently 13 qualified individuals, not all in the rad waste department. If the Emergency Operations Facility is manned during an event, the shift manager would request them to contact maintenance to supply a driver. In the unlikely event there was no ERO activation, the shift manager would initiate the site rapid response process to bring qualified personnel on site.

d. The response on April 15, 2013 (NL-13-057) said:

"The changes to the TS proposed in the Entergy letter of August 14, 2012 should be revised to ensure the TS cannot be interpreted that the requirement is satisfied by having the minimum fuel oil volume contained only in the reserve storage tanks or solely in the Buchanan storage tank and none in the three underground fuel oil storage tanks. This was not the intent. This can be accomplished by revising the Condition A from that which was proposed in order to address only the fuel oil storage tanks and by adding a revised Condition B, which replaces the proposed deletion of the existing Condition B, in order to address only the reserve storage tank(s). The proposed Condition B, C, D and E will be re-numbered Condition C, D, E and F and the new condition F will capture all the actions....

The above approach is not fully consistent with the TSTF 501 approach of providing a TS condition for a fuel oil storage tank that provides less than a 7 day supply but more than a 6 day supply (note the Condition B specifies "their" 6 and 7 day supplies to reflect the specific information in the Bases). The 7 day supply of fuel oil required the fuel oil storage tanks to each have a 40 hour supply of fuel and the reserve storage tank(s) to have the balance of the 7 day supply. The proposed change does not require the fuel oil storage tank(s) to have at least a 6 day supply like contemplated in the TSTF because the reserve storage tanks supply the bulk of the 7 day supply and fuel oil storage tank(s) can be rapidly refilled. Also, the fuel oil storage tanks have historically been kept above the 40 hour supply level since there is margin to allow testing."

Additional information is being provided as follows:

The technical specifications being proposed have been revised, see the discussion in question 2, and this will address this question.

e. The response on April 15, 2013 (NL-13-057) said :

"Rad Waste Department provides a Commercial Drivers Licensed individual. This is not a scheduled position. This position would be supplied by the ERO. Based on the anticipated resupply in about 24 hours, the driver is not required to staff the ERO in 60 minutes."

Additional information is being provided as follows:

There is more than one driver available and personnel are prepared to respond to the plant in an emergency in order to provide needed support. The drivers are not part of the ERO (they are union) and therefore it is misleading to say they are supplied by the ERO. The drivers are called in as discussed in item c. The drivers have no concurrent ERO duty assignment.

f. The response on April 15, 2013 (NL-13-057) said :

"The personnel would be supplied by the ERO, or by the watch when conditions (e.g., storms, tornado, etc.) require such assurance as part of refilling the fuel oil storage tanks.

"Rad Waste Department provides a Commercial Drivers Licensed individual. This is not a scheduled position. This position would be supplied by the ERO. Based on the anticipated resupply in about 24 hours, the driver is not required to staff the ERO in 60 minutes.

Additional information is being provided as follows:

Personnel would be called in to perform fuel oil resupply operations as discussed in item c. There are alternate means to ensure that plant personnel required for this function can get to the site under adverse conditions. For example, Entergy recently advised the NRC questions on bringing in staff under adverse conditions as part of the Fukushima information requested under the 10 CFR 50.54(f) as follows:

> Existing guidance contained in the Indian Point Emergency Plan, New York State Radiological Emergency Plan, and the New York Comprehensive Emergency Plan, is adequate to ensure State and local resources (including helicopters) are available to transport ERO personnel to the site following a BDBEE. Additional LOAs with the state or local governments to perform this function are not required. In addition, Entergy has a Memorandum of Understanding (MOU) with a private contractor in the local area to provide for transport of ERO personnel from Stewart Airport or White Plains Airport to the site following a BDBEE. The decision on what resource to use to transport ERO personnel to the site would be made at the time of an event. (Entergy letter NL-14-009 dated March 17, 2014).

If there is no emergency response organization staffing for an event the fuel oil delivery would still take place. Personnel are called in as discussed in item c. Additionally, Operations is evaluating the use of a smaller tanker that could be driven without a commercial license. Such a truck would be evaluated under the 10 CFR 50.59 process but it is not expected to require NRC review.

STSB- 01 Question 2

In response to RAI-STSB-1 the licensee provided a revised proposed Condition A, B, and F.

Proposed Condition A and B revises the current Condition A and B by allowing a proposed Completion Time (CT) of 48 hours. TSTF-501 does not propose any changes to the existing TS

Completion Times. Provide a detailed, plant-specific, safety justification for the proposed change of Condition A and B CT from "Immediately" to "48-Hours."

Response:

The TSTF 501 change revises the conditions where fuel oil is less than a 7 day supply by removing the values of the 7 day supply to the Bases. The TSTF also revises the Conditions by making it applicable to fuel oil supplies that are between 6 and 7 days of supply rather than just less than the 7 day supply. If the 48 hour allowed outage time for the Condition where fuel oil is less than the 7 day supply but more than the 6 day supply is not met, then the affected diesel is declared inoperable. Since the TSTF 501 change adds the lower limit, there are no conditions for fuel oil supplies less than 6 days. Under this condition, the standard TS would require entry into TS 3.0.3 and an immediate shutdown.

The current TS require the associated emergency diesel to be declared inoperable immediately when a fuel oil storage tank or the reserve fuel oil storage tank falls below the level that provides the equivalent of 7 days of fuel oil when combined. In this response IPEC is proposing to revise the TS proposed in our letter of April 15, 2013 in order to more closely match the TSTF by adding "and greater than the 6 day supply" to condition A. This would mean both Condition A and Condition B would have an upper and lower limit so that LCO 3.0.3 would apply if the lower limit is not met. Because the TS Conditions A and B now have an upper limit as before but also a lower limit, the current TS allowed outage time should be changed from the current "declare the associated diesel inoperable immediately" to allow some time to restore the required fuel oil level. Condition F would apply if the allowed outage time of Condition A or Condition B was not met and would require the supported diesel to be declared inoperable immediately.

The 48 hours proposed in our letter of April 15, 2013 for Condition A and Condition B was based strictly on the 48 hours currently in the standard technical specifications. The Bases of Standard technical specification (STS) 3.8.3 (NUREG-1431, Revision 3) says "A period of 48 hours is considered sufficient to complete restoration of the required level prior to declaring the DG inoperable. This period is acceptable based on the remaining capacity (> 6 days), and the fact that procedures will be initiated to obtain replenishment, and the low probability of an event during this brief period.

The 48 hours of the STS is not directly applicable to IP3 because of the use of both the fuel oil storage tanks and the reserve storage tank. A total period of 48 hours for the two conditions would be applicable because four tanks would have to drop below the 6 day level or there would still be more than 6 days of fuel oil for the 3 diesel generators. Note there are procedures to refill the tank whenever the amount of fuel oil required by the TS is reached so this is an unlikely situation. The 48 hours should be apportioned between the fuel oil storage tanks and the reserve tank based on the approximate portion of the 6 days that they represent. These values were identified in NL-13-057 (April 15, 2013) as follows:

Duration	FOST (each)	Reserve per EDG	Reserve
7 Days	5712 gallons	18228 gallons	54684 gallons
6 Days	5007 gallons	15613 gallons	46839 gallons

The 6 day value for an EDG is about one third to value in the reserve tank for that generator (15613 / 5007 = 3.118). The 48 hours should therefore be apportioned as 12 hours for the EDG fuel oil storage tank and 36 hours for the reserve tank.

When revised the TS would read as below:

A. One or more DGs with usable fuel oil storage tank level less than a 40 hour supply and greater than the 6 day supply.	A.1	Restore fuel oil level to within limits.	12 hours
B. Usable fuel oil in the reserve storage tank(s) less than their 7 day supply and greater than their 6 day supply.	B.1	Restore fuel oil level to within limits.	36 hours
F. Required Action and associated Completion Time not met. OR One or more DGs diesel fuel oil or starting air subsystem not within limits for reasons other than Condition A, B, C, D, or E.	F.1	Declare associated DG inoperable.	Immediately

ATTACHMENT 2 TO NL-14-053

MARKUP OF TECHNICAL SPECIFICATION PAGES FOR PROPOSED CHANGES REGARDING EMERGENCY DIESEL GENERATOR FUEL OIL SYSTEM

Changes indicated by lineout for deletion and Bold/Italics for additions

Unit 3 Affected Pages
3.8.3-1 to 4

ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3
DOCKET NO. 50-286

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil and Starting Air

LCO 3.8.3 The stored diesel fuel oil and starting air subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY: When associated DG is required to be OPERABLE.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each DG.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ~~NOTE~~ ~~Only applicable in MODES 1, 2, 3 and 4.~~ One or more DGs with usable fuel oil storage tank ***level less than a 40 hour supply and greater than the 6 day supply*** ~~in associated DG fuel oil storage tank < 5365 gal~~.	A.1 ~~Declare associated DG inoperable.~~ ***Restore fuel oil level to within limits.***	~~Immediately~~ ***12 hours***

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. ~~NOTE~~ ~~Only applicable in MODES 5 and 6 and during movement of irradiated fuel.~~ ~~---~~ ***Usable fuel oil in the reserve storage tank(s) less than their 7 day supply and greater than the 6 day supply.*** ~~Total combined usable fuel oil in DG fuel oil storage tanks associated with the operable DG(s) < 5365 gal.~~	B.1 ~~Declare all DGs inoperable.~~ ***Restore fuel oil level to within limits.***	~~Immediately~~***36 hours***

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~C. NOTE Only applicable in MODES 1, 2, 3 and 4. Total useable fuel oil in reserve storage tank(s) < 26,826 gal.~~	~~C.1 Declare all DGs inoperable.~~	~~Immediately~~
~~D~~*C*. One or more DG fuel oil storage tanks or reserve fuel oil storage tanks with fuel oil total particulates not within limits.	~~D~~*C*.1 Restore fuel oil total particulates within limit.	7 days for DG fuel oil storage tank AND 30 days for reserve fuel oil storage tank
~~E~~*D*. One or more DG fuel oil storage tanks or reserve fuel oil storage tanks with fuel oil properties other than particulates not within limits.	~~E~~*D*.1 Restore fuel oil properties to within limits.	30 days for DG fuel oil storage tank AND 60 days for reserve fuel oil storage tank
~~F~~*E*. One or more DGs with starting air receiver pressure < 250 psig and ≥ 90 psig.	~~F~~*E*.1 Restore starting air receiver pressure to ≥ 250 psig.	48 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~G~~*F*. Required Action and associated Completion Time not met. OR One or more DGs diesel fuel oil or starting air subsystem not within limits for reasons other than Condition A, B, C, D, ~~E,~~ or ~~F~~*E*.	~~G~~*F*.1 Declare associated DG inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
~~SR 3.8.3.1~~	~~NOTE~~ ~~Only required in MODES 1, 2, 3 and 4.~~ ~~Verify reserve storage tank(s) contain ≥ 26,826 gal of fuel oil reserved for IP3 usage only.~~	~~24 hours~~
SR 3.8.3.~~2~~***1***	Verify DG fuel oil storage tanks **and the reserve storage tank(s)** contain: ***≥ a 7 day supply of fuel.*** a. ~~Usable fuel oil volume ≥ 5365 gal in each storage tank when in MODES 1, 2, 3 and 4; and~~ b. ~~Total combined usable fuel oil volume ≥ 5365 gal in any DG fuel oil storage tank(s) that are associated with the operable DG(s) when in MODES 5 and 6 and during movement of irradiated fuel assemblies.~~	31 days
SR 3.8.3.~~3~~2	Verify that fuel oil properties of new and stored fuel oil in the DG fuel oil storage tanks ***and the reserve storage tank(s)*** are tested and maintained in accordance with the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
~~SR 3.8.3.4~~	~~NOTE~~ ~~Only required in MODES 1, 2, 3 and 4.~~ ~~Verify that fuel oil properties in the reserve storage tank(s) are within limits specified in the Diesel Fuel Oil Testing Program.~~	~~In accordance with the Diesel Fuel Oil Testing Program~~
SR 3.8.3.~~5~~*3*	Verify each DG air start receiver pressure is ≥ 250 psig.	31 days
SR 3.8.3.~~6~~*4*	Check for and remove accumulated water from each DG fuel oil storage tank.	92 days