Entergy

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J.E. Pollock
Site Vice President
Administration

October 13, 2008

Re: Indian Point Unit 2
Docket No. 50-247

NL-08-160

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: **Proposed Exigent License Amendment to Revise Technical Specification Surveillance Requirement 3.8.1.10 Frequency Regarding Diesel Generator Endurance Test**

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Entergy Nuclear Operations, Inc, (Entergy) hereby requests an exigent License Amendment to Operating License DPR-26, Docket No. 50-247 for Indian Point Nuclear Generating Unit No. 2 (IP2). The license amendment is to allow for a one-time revision to the frequency for the Technical Specification Surveillance Requirement 3.8.1.10 regarding the diesel generator endurance test for the current surveillance interval.

Entergy has evaluated the proposed change in accordance with 10 CFR 50.91 (a)(1) using the criteria of 10 CFR 50.92 (c) and has determined that this proposed change involves no significant hazards considerations, as described in Attachment 1. The proposed amendment meets the criteria of 10 CFR 50.91(a)(6) for an exigent change, as described in Attachment 1. The proposed changes to the Technical Specifications are provided in Attachment 2. A copy of this application and the associated attachments is being submitted to the designated New York State official.

Entergy requests approval of the proposed amendment by October 17, 2008. There are no new commitments being made in this submittal. If you have any questions or require additional information, please contact Mr. Robert Walpole, IPEC licensing manager at (914) 734-6710.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 13, 2008.

Sincerely,

Patrick W. Conway for

J. E. Pollock
Site Vice President
Indian Point Energy Center

Attachments: 1. Analysis of Proposed Technical Specification Changes Regarding Diesel Generator Endurance Test Surveillance Frequency

2. Markup of Technical Specification Page for Proposed Changes Regarding Diesel Generator Endurance Test Surveillance Frequency

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
Mr. Samuel J. Collins, Regional Administrator, NRC Region 1
NRC Resident Inspector, IP2
Mr. Robert Callender, Vice President, NYSERDA
Mr. Paul Eddy, New York State Dept. of Public Service

ATTACHMENT 1 To NL-08-160

ANALYSIS OF PROPOSED TECHNICAL SPECIFICATION CHANGES

REGARDING DIESEL GENERATOR ENDURANCE TEST

SURVEILLANCE FREQUENCY

ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2
DOCKET NO. 50-247

1.0 DESCRIPTION

Entergy Nuclear Operations, Inc (Entergy) is requesting an amendment to Operating License DPR-26, Docket No. 50-247 for Indian Point Nuclear Generating Unit No. 2 (IP2). The proposed change will revise the test frequency specified in Technical Specification (TS) Surveillance Requirement (SR) 3.8.1.10 for the emergency diesel generator (DG) endurance test for the current surveillance interval. An exigent TS change is requested for the reasons given below in the background section. The current SR 3.8.1.10 is considered non-conservative and the proposed change will credit a surveillance test performed during the last outage to criteria deemed more conservative due to the higher loads invoked.

The specific proposed changes are listed in the following section.

2.0 PROPOSED CHANGES

The DG SR 3.8.1.10 will be revised by the addition of a note to the surveillance frequency as follows:

From

"24 months"

To

"24 months(1)

(1) The surveillance interval is extended, on a one time basis, to 48 months, with a 6 month grace period, following the testing in refueling outage 17 (spring 2006) based on testing performed under administrative controls in accordance with Administrative Letter 98-10 during refueling outage 18 (spring 2008) that satisfy the intent of the surveillance."

The TS markup page for these changes is provided in Attachment 2. The TS bases changes needed to reflect the note will be prepared in accordance with the TS bases control program.

3.0 BACKGROUND

IP2 improved technical specification (ITS) SR 3.8.1.10 is a test of the DG, similar to standard technical specification (STS), (Reference 1) SR 3.8.1.14. These surveillances require that each DG be started and loaded for a specified period of time at specified loading conditions, which include kilowatt (kW) output and power factor. Prior to conversion to ITS, the IP2 custom technical specifications (CTS) contained a requirement for diesel testing (Specification 4.6.A.2) that stated "each diesel shall be manually started, synchronized and loaded up to its continuous (nameplate) and short term ratings." The Bases clarified the loading requirements "Each diesel is rated for operation for 0.5 hours of operation out of any 24 hours at 2300 kW plus 2.0 hours of operation out of any 24 hours at 2100 kW with the remaining 21.5 hours of operation out of any twenty four hours at 1750 kW."

This CTS testing requirement was established in IP2 license amendment 153 (Reference 2) which reflected the installation of a plant modification designed to provide for an increase in the DG short-term rating.

During the conversion to ITS for IP2 (Reference 3), the CTS requirement was expanded to specify test acceptance criteria for test duration, load values and power factor. In addition, the loading requirement for this test was modified to specify two test intervals; one at a load range that corresponds to 90% - 100% of the DG continuous rating and the other at a load range that corresponds to 105% - 110% of the DG continuous rating.

During NRC inspection activities described in Reference 4, questions were raised regarding the adequacy of the load ranges specified in ITS SR 3.8.1.10 to demonstrate the capability of the DGs to operate at the peak loading conditions identified in plant safety analyses for the limiting design basis accident (DBA). As a result Entergy acknowledged the need to submit a license amendment request to establish new load ranges that would bound the peak accident loads. Entergy submitted a proposed amendment (References 5 and 6) to establish load ranges based on the diesel ratings previously described in amendment 153. The proposed changes revised power factors to $\leq$ 0.88 (applicable to DGs 21 and 23) and $\leq$ 0.87 (applicable to DG 22) and revised load ranges to the following:

a. For $\geq$ 15 minutes and $\leq$ 30 minutes loaded to $\geq$ 2270 kW and $\leq$ 2300 kW, and
b. For $\geq$ 105 minutes and $\leq$ 2 hours loaded to $\geq$ 2050 kW and $\leq$ 2100 kW, and
c. For the remaining hours of the test loaded to $\geq$ 1700 kW and $\leq$ 1750 kW.

Entergy tested the DGs to the proposed TS requirements during the most recent refuel outage (RFO) 18 (RFO - 18) in spring of 2008, as required by NRC Administrative Letter 98-10. The Administrative Letter states "In summary, the discovery of an improper or inadequate TS value or required action is considered a degraded or nonconforming condition as defined in GL 91-18. Imposing administrative controls in response to an improper or inadequate TS is considered an acceptable short-term corrective action. "

Following the testing in RFO - 18, Entergy discussed the review schedule with NRC to determine if a one time change should be proposed to allow the testing under the Administrative Letter. The reason for the discussion was the testing performed in RFO - 18 did demonstrate DG operability (to the criteria of amendment 153) but did not constitute literal compliance with the current TS. Prior testing in RFO - 17 (spring of 2006) would be able to satisfy the existing TS SR only up until October 18, 2008 (24 months plus 25% grace since the test performed per the existing TS SR for the earliest tested DG during RFO - 17). It was understood that a one time change to the TS was not required since the amendment was anticipated prior to this date. Additional information was submitted to the NRC (References 7, 8 and 9). Entergy and the NRC discussed the status of the amendment on October 10, 2008 and determined that more time would be required for the NRC to complete the necessary reviews and an exigent TS request was the most practical means to prevent unnecessary retesting of the DGs to current TS SR 3.8.1.10 requirements.

Entergy has several reasons for not performing SR 3.8.1.10 in accordance with the current TS. Testing to demonstrate DG operability was performed during the RFO - 18. Testing the DG to the current non- conservative TS will not demonstrate the DGs are operable and will render the DGs inoperable for a period of 24 hours after testing above the steady state loads, adding significant unnecessary unavailability time for each of the DGs. Additionally, performing SR 3.8.1.10 tests during power operations represents an infrequently performed test or evolution. The testing is normally performed during outage conditions and testing while at power would present an

increased level of risk as assessed under the Maintenance Rule. The testing is performed while paralleled to the bus and removes the independence of the DG from the grid. The test also requires the tap changer for the Station Auxiliary Transformer to be placed in manual, thus defeating this normally automatic feature, which can adversely impact the stability of the voltage of the offsite power delivered to the station. Lastly, testing the DGs does add additional stresses to the DG which is not necessary.

4.0 TECHNICAL ANALYSIS

The DG testing performed during RFO - 18 was based on the loading conditions in the current version of the IP2 emergency diesel generator loading study. The methodology consists of an evaluation of emergency safeguards equipment powered from the 480v ac emergency safeguards bus under hypothetical accident scenarios which also involve loss of normal offsite power. The evaluation accounts for the time-dependent electrical power requirements of various safeguards components as the accident scenario progresses. The testing load profiles used have been previously approved by the NRC (amendment 153) and are currently under review for incorporation in the TS (References 5 to 9).

The current TS SR requirement 3.8.1.10 was determined to be non-conservative by the NRC during an inspection. This was agreed to by Entergy and TS changes have been proposed and submitted to the NRC staff (References 5 to 9). The NRC staff's review has indicated that it would be more appropriate to test the DG with an altered load profile than that used during the RFO - 18 test but the proposed power factors have not been changed (Reference 8). The load profile currently proposed is more reflective of the actual load profile sequence in an accident scenario but is not a more severe test of the DG than that performed in RFO - 18. The load profile proposed in Reference 8 is to test for $\geq$ 105 minutes and $\leq$ 2 hours loaded to $\geq$ 2050 kW and $\leq$ 2100 kW, followed by $\geq$ 10 minutes and $\leq$ 15 minutes loaded to $\geq$ 2270 kW and $\leq$ 2300 kW, followed by the remaining hours of the test loaded to $\geq$ 1700 kW and $\leq$ 1750 kW.

Extending the allowed frequency of the test (but not the 25 percent allowance over the 24 month schedule) will maintain testing within the schedule approved by the TS using more conservative values while eliminating a test at non conservative values. It will therefore not increase the probability or consequences of an accident previously evaluated because the DG testing has been performed as necessary to demonstrate the DG will function to mitigate the consequences of accidents. The DG testing frequency does not increase the probability of any accidents since it does not cause or result in any accidents.

Extending the allowed frequency of the test (but not the 25 percent allowance over the 24 month schedule) does not create the possibility of a new or different kind of accident from any accident previously evaluated because there will be no changes to the way systems or equipment is operated and all of the testing discussed has been previously performed. Additionally, there is no installation of new equipment or modification of existing equipment, so no new equipment failure modes are introduced.

Extending the allowed frequency of the test (but not the 25 percent allowance over the 24 month schedule) will not significantly reduce the margin of safety because testing to demonstrate the capability of the diesel was successfully performed during RFO - 18 in accordance with the 24 month schedule and the change in frequency eliminates the need to perform unnecessary testing using non conservative loads while at power.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

Entergy has evaluated the safety significance of the proposed change to the IP2 TS that revises the surveillance interval associated with DG load testing and power factor requirements. This proposed change has been evaluated according to the criteria of 10 CFR 50.92, "Issuance of Amendment". Entergy has determined that the subject change does not involve a Significant Hazards Consideration as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   No. The proposed change revises the frequency of the existing TS surveillance test of the facility DGs for the current surveillance cycle. The revised frequency recognizes that a surveillance test performed during the RFO - 18 demonstrated DG operability and removes the requirement to perform the less conservative existing surveillance test while online. Extending the frequency of a surveillance test is not an accident initiator and does not increase the probability of an accident occurring. The extended frequency did not eliminate required testing of the diesel to demonstrate operability but does eliminate the need for testing that does not serve to demonstrate operability. Extending the TS frequency will not create a significant increase in the consequences of an accident previously evaluated. Therefore the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   No. The proposed change revises the frequency for a TS required surveillance test. The proposed change does not involve installation of new equipment or modification of existing equipment, so no new equipment failure modes are introduced. The proposed revision to the DG surveillance test frequency is not a change to the way that the equipment or facility is operated and no new accident initiators are created. Therefore the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   No. The conduct of performance tests on safety-related plant equipment is a means of assuring that the equipment is capable of maintaining the margin of safety established in the safety analyses for the facility. The proposed change to the DG TS surveillance test frequency removes the need to perform the surveillance test per the current surveillance cycle because the existing test requirements are not sufficient to assure DG operability. The change does not affect the margin of safety because a more conservative test was performed during RFO - 18 that demonstrated the DG margin of safety. Therefore the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Entergy concludes that the proposed amendment to the IP2 TS presents no significant hazards consideration under the standards set forth in 10 CFR 50.92 (c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements / Criteria

General Design Criterion (GDC) 17; "Electric Power Systems" requires that onsite electric power systems have sufficient independence, capacity, capability, redundancy, and testability to ensure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents, assuming a single failure.

GDC 18; "Inspection and Testing of Electric Power Systems" requires that electric power systems important to safety be designed to permit appropriate periodic inspection and testing to assess the continuity of the systems and the condition of their components.

IP2 Final Safety Analysis Report (FSAR) section 8.1 describes how the requirements of GDC 17 and 18 are met at IP2. Also, TS section 3.8.1 contains testing requirements for the DGs.

Regulatory Guide 1.9, Revision 3 describes methods for meeting the above requirements based on NRC staff endorsement of IEEE Standard 387-1984, with exceptions as stated in the Regulatory Guide. Regulatory Position 2.2 describes various DG tests, including test 2.2.9 for the Endurance and Margin Test.

IP2 established the current continuous and short-term ratings of the DGs through engineering analysis and determined that the load profiles and power factors proposed in References 5 and 6 established a valid basis for testing. This was performed in the RFO 18 to establish compliance with the above requirements. The proposed Amendment is to recognize this testing rather than requiring additional testing that is unnecessary and recognized as insufficient to meet the above requirements. Changing the order of the load profile in future testing (Reference 8) has no effect on the acceptability of the RFO - 18 testing to demonstrate the operability of the DG. .

5.3 Environmental Considerations

The proposed changes to the IP2 TS do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 PRECEDENCE

Administrative Letter 98-10 established that using administrative controls for testing when non-conservative TS values were identified was acceptable and that amendments to correct the TS should be submitted to correct the non-conservative TS. The timing of the approval of the proposed amendment and the requirements for strict compliance with TS have created the need for an interim amendment. No precedent for the interim amendment was identified.

7.0 REFERENCES

1. Standard Technical Specifications for Westinghouse plants, NUREG 1431.

2. NRC letter to Consolidated Edison Company; "Issuance of Amendment 153 for Indian Point Nuclear Generating Unit 2," dated May 9, 1991.

3. NRC letter to Entergy regarding issuance of Amendment 238 for Indian Point Nuclear Generating Unit 2, dated November 21, 2003.

4. NRC Inspection Report 05000247 / 2006-003, dated August 11, 2006 (NCV 2006-003-05 and -08).

5. Entergy Letter NL-07-038 regarding "Proposed Changes to Indian Point 2 Technical Specifications Regarding Diesel Generator Endurance Test Surveillance," dated March 22, 2007.

6. Entergy Letter NL-07-128 regarding "Reply to Request for Additional Information Regarding Proposed Technical Specification Changes for the Diesel Generator Endurance Test Surveillance (TAC MD4923)," dated November 13, 2007.

7. Entergy letter NL-08-101 dated July 9, 2008 regarding "Proposed Changes to Indian Point 2 Technical Specifications Regarding Diesel Generator Endurance Test Surveillance"

8. Entergy letter NL-08-139 dated September 29, 2008 "Reply to Request for Additional Information Regarding Indian Point Unit 2 Proposed Changes to Technical Specifications Regarding Diesel Generator Endurance Test Surveillance (TAC NO.MD9214)"

9. Entergy letter NL-08-157 dated October 8, 2008 "Supplement to Reply to Request for Additional Information Regarding Indian Point Unit 2 Proposed Changes to Technical Specifications Regarding Diesel Generator Endurance Test Surveillance (TAC NO.MD9214)"

ATTACHMENT TWO TO NL-08-160

MARKUP OF TECHNICAL SPECIFICATION PAGE FOR PROPOSED CHANGES REGARDING DIESEL GENERATOR ENDURANCE TEST SURVEILLANCE FREQUENCY

Affected Page: 3.8.1-8 Amendment 238

Changes Bold and *Italic*

ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2
DOCKET NO. 50-247

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.1.10 ---------- **- NOTES -** 1. Momentary transients outside the load and power factor ranges do not invalidate this test. 2. This SR shall not normally be performed in MODE 1 or 2. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. 3. If performed with DG synchronized with offsite power, it shall be performed at a power factor ≤ 0.85. However, if grid conditions do not permit, the power factor limit is not required to be met. Under this condition the power factor shall be maintained as close to the limit as practicable. ---------- Verify each DG operating at a power factor ≤ 0.85 operates for ≥ 8 hours: a. For ≥ 2 hours loaded ≥ 1837 kW and ≤ 1925 kW and b. For the remaining hours of the test loaded ≥ 1575 kW and ≤ 1750 kW.	24 months[(1)]
SR 3.8.1.11 ---------- **- NOTE -** Load sequence timers associated with equipment that has automatic initiation capability disabled are not required to be OPERABLE. ---------- Verify each load sequence timer relay functions within the required design interval.	24 months

(1) The surveillance interval is extended, on a one time basis, to 48 months, with a 6 month grace period, following the testing in refueling outage 17 (spring 2006) based on testing performed under administrative controls in accordance with Administrative Letter 98-10 during refueling outage 18 (spring 2008) that satisfy the intent of the surveillance.