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July 23, 2009

NL-09-062

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

**SUBJECT: Proposed Technical Specification Change Regarding RWST Surveillance Requirement
Indian Point Unit Number 3
Docket No. 50-286
License No. DPR-64**

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Entergy Nuclear Operations, Inc, (Entergy) hereby requests a License Amendment to Operating License DPR-64, Docket No. 50-286 for Indian Point Nuclear Generating Unit No. 3 (IP3). The proposed amendment will delete the level indication instrument from the Refueling Water Storage Tank (RWST) Technical Specification Surveillance Requirement (SR) 3.5.4.5.

Attachment 1 provides a description and assessment of the proposed change. The marked-up pages showing the proposed changes are provided in Attachment 2. A copy of this application and the associated attachments are being submitted to the designated New York State official in accordance with 10 CFR 50.91.

Entergy requests approval of the proposed amendment within 12 months and an allowance of 30 days for implementation. 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, Licensing at (914) 734-6710.

A001
NRR

I declare under penalty of perjury that the foregoing is true and correct. Executed on 7-23,
2009.

Sincerely,

JEP/sp

A handwritten signature in black ink that reads "D. May for". The signature is written in a cursive style.

- Attachments:
1. Analysis of Proposed Technical Specification Change Regarding RWST Surveillance Requirements
 2. Markup of Technical Specification Page for Proposed Change Regarding RWST Surveillance Requirements

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
Mr. Samuel J. Collins, Regional Administrator, NRC Region 1
NRC Resident Inspector, IP3
Mr. Francis J. Murray, Jr., President and CEO, NYSERDA
Mr. Paul Eddy, New York State Dept. of Public Service

ATTACHMENT 1 TO NL-09-062

**ANALYSIS OF PROPOSED TECHNICAL SPECIFICATION CHANGE
REGARDING RWST SURVEILLANCE REQUIREMENTS**

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

1.0 DESCRIPTION

Entergy Nuclear Operations, Inc (Entergy) is requesting a License Amendment to Operating License DPR-64, Docket No. 50-286 for Indian Point Nuclear Generating Unit No. 3 (IP3). The proposed amendment will delete the level indication instrument from the Refueling Water Storage Tank (RWST) Technical Specification (TS) Surveillance Requirement (SR) 3.5.4.5.

2.0 PROPOSED CHANGES

The requested amendment will change Technical Specification surveillance requirement 3.5.4.5 as follows:

From:

Perform CHANNEL CALIBRATION of RWST level Indicating switch and ensure the low level alarm setpoint is ≥ 10.5 feet and ≤ 12.5 feet.

To:

Perform CHANNEL CALIBRATION of RWST level switch and ensure the low level alarm setpoint is ≥ 10.5 feet and ≤ 12.5 feet.

Changes to the Bases have not been included since changes are minimal.

3.0 BACKGROUND

SR 3.5.4.5 is one of two surveillances which calibrate the lo-lo level alarm functions of the Refueling Water Storage Tank (RWST). This SR also requires the level indication function of the RWST to be calibrated. The surveillance requirement refers to a "level indicating switch" which is associated with both functions. The proposed change is to delete "indicating" which will eliminate the level indication function from SR 3.5.4.5.

The purpose of the proposed change is to make the TS more consistent with the standard technical specifications and it will allow a modification to improve the performance of the level alarm functions currently associated with LIC-921. Following the TS change Entergy is planning a modification, to be made using the 10 CFR 50.59 process, that will separate the lo-lo level alarm function from the level indication and add a separate instrument for the level alarm function. The modification is expected to correct the past performance of RWST level instrument LIC-921 which has been indicating an adverse trend (instrument drift noted during performances of the calibration test).

The problems with LIC-921 have at least in part been caused by dual function of level indication and the lo-lo level alarm. These functions are performed by a set of cams and linkages that interface with a common rotating shaft. Setting the alarm and calibrating the indicator have shown evidence of interaction in the past and calibration strategies to maximize the reliability of the alarm function may have affected the performance of the indication. Testing is currently quarterly to assure operability.

The design objective is to replace the existing LIC-921 alarm function by adding a new switch (as information it is noted that the current design plans to use a pressure switch with a significantly smaller range and, therefore better resolution and accuracy). The indication function of LIC-921 shall remain in place for local monitoring of tank level. The new switch will be designated LC-923.

4.0 TECHNICAL ANALYSIS

Instruments installed on the RWST provide "level indication" and "lo-lo level alarms." The instrument loops installed are the following:

- Loop number L-920 provides CCR indication support for confirming initial condition minimum tank water volume. It also provides a RWST lo-lo Level alarm in the Central Control Room (CCR) that is redundant to that of LIC-921. The lo-lo level alarm is calibrated by SR 3.5.4.6. The level indication is not calibrated by TS SR.
- Loop number L-921 includes instrument LIC-921 which includes a level switch with local indication and actuates a lo-lo level alarm on panel SBF-2 in the CCR when water level decreases below 11.5 ft (nominal). The level switch level indication and lo-lo level alarm are calibrated by SR 3.5.4.5.

In addition, Loop number L-922 provides alarms at two different levels above the level which represents the initial condition minimum tank water volume. The lo level alarm alerts operations to a condition wherein the minimum TS volume is being approached due to decreasing level and the high alarm alerts operations to a condition wherein an overflow condition is being approached due to increasing level. This loop is not TS required.

The proposed change will remove the level switch function for indication but not the lo-lo level alarm function from SR 3.5.4.5. The proposed change will not affect the safety related Class I classification, it will not revise the seismic design requirements, it will not add or delete any functions, and it will not revise the setpoints. Additionally the current TS surveillance periodicity of the lo-lo level will be retained for the new level alarm.

Removal of the level switch function for indication from SR 3.5.4.5 will remove the possibility of unnecessary shutdown or a request for waiver of compliance. SR 3.0.1 states that SRs shall be met during the modes or other specified conditions in the TS applicability statement for individual LCOs, unless otherwise stated in the SR. Failure to meet a SR, whether such failure is experienced during the performance of the surveillance or between performances of the surveillance, shall be failure to meet the LCO. Since SR 3.5.4.5 includes level indication, a failure of the level indication would mean the LCO would not to be met. There is no action statement for level indication so LCO 3.0.3 would apply and require plant shutdown to mode 5 to be initiated within one hour.

The RWST lo-lo level alarm function is identified in UFSAR Table 7.5-1 as Regulatory Guide 1.97 Type A1 instrumentation and was approved as such in Reference 1. Type A is defined as those variables that provide primary information needed to permit control room operators to take specified manually controlled actions for which automatic controls are not provided. The lo-lo level alarms specified in TS LCO 3.5.4 are the primary means used for the manual switchover to recirculation. Type 1 specifies the design and qualification criteria. The lo-lo level alarms have

been integrated into the RWST TS and the action statements associated with these instruments are appropriate based on the manual actions they would prompt to initiate transfer to recirculation. It is appropriate that they be left in this TS LCO rather than TS 3.3.3 for post accident monitors. The RWST level indication is not required to be in the TS. Only loop 920 is a post accident monitor and it is identified in Table 7.5-1 of the UFSAR as Type D.2 (variables that indicate the operating status).

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

Entergy Nuclear Operations, Inc (Entergy) has evaluated the safety significance of the proposed change to the Indian Point 3 Technical Specifications that revises the RWST surveillance criterion to remove the level indicating function. This proposed change has been evaluated according to the criteria of 10 CFR 50.92, "Issuance of Amendment". Entergy has determined that the proposed 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 existing Indian Point 3 Refueling Water Storage Tank (RWST) Technical Specification (TS) Surveillance Requirement (SR) to remove the level indication function for the L-921 instrument loop. Removal of a TS SR for the level indication does not increase the probability of an accident occurring since it is not an accident initiator and does not increase the consequences of an accident since it is not performing any mitigating function and is not a post accident instrument. The proposed revision will not affect RWST lo-lo level alarm function used for operator guidance to begin sequencing to Recirculation Mode of Safety Injection during a postulated loss of coolant accident (LOCA). There will be no change in equipment qualification requirements or changes to the surveillance requirement for the lo-lo level alarm. Therefore the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

No. The proposed change removes the RWST level indication function from the RWST lo-lo level alarm surveillance requirement for the L-921 instrument loop. The proposed change does not involve installation of new equipment or modification of existing equipment, so that no new equipment failure modes are introduced. Also, the proposed change does not result in a change to the way that the equipment or facility is operated so that 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 proposed change removes the RWST level indication function from the RWST lo-lo level alarm surveillance requirement for the L-921 instrument loop. There is no change to the design requirements or the surveillance interval. The proposed change does not add

the level indicating function elsewhere in the TS because it is a local level indication that is only used during normal operation and was never a post accident monitoring instrument. 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 Indian Point 3 Technical Specifications 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 Criteria (GDC) 11 dated July 11, 1967 formed part of the plant design basis. It required the facility to be provided with a control room from which actions to maintain safe operational status of the plant can be maintained.

IP3 Final Safety Analysis Report (FSAR) Chapter 7 discusses compliance with the GDC. Section 7.1 notes that the Control Room is continuously occupied by qualified operating personnel under all operating and Maximum Credible Accident (MCA) conditions. The post accident monitoring system instrumentation available to the operator for monitoring plant conditions complies with Regulatory Guide 1.97 requirements as documented in NRC letter (Reference 1). Section 7.5 states that two redundant lo-lo level alarms indicate that the Safety Injection and Containment Spray Systems have removed water from the RWST and that recirculation can commence. One level indication reads out on the control board and one level indication is local. The level indication in the control room is classified as type D.2 and is not required to be in the TS. The local level indicator was never a post accident monitoring instrument and never required to be in the TS.

The proposed change to remove the local level indication from the TS surveillance requirement is consistent with the FSAR which specifies that only Type A post accident monitors are in the TS. The lo-lo RWST level alarm functions will remain subject to TS SR.

5.3 Environmental Evaluation

The proposed change to the Indian Point 3 Technical Specifications does 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 the 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 this proposed amendment.

5.4 Precedence

There was no direct precedence identified for the proposed technical specification change because it is design specific. The IP3 TS were originally custom and converted based upon the NRC Standard Technical Specifications (STS) (Reference 2). Although the STS does not contain provisions for a lo-lo level alarm, the lo-lo level alarm was added to the IP3 RWST Technical Specification 3.5.4 during the conversion. The IP3 design depends on the lo-lo level alarms to alert the Control Room operators to level conditions which require operators to begin sequencing to Recirculation Mode of Safety Injection during a postulated loss of coolant accident (LOCA).

Since the level indication function for the RWST is integral with the lo-lo level alarm on one instrument loop, the description of the loop in the SR included the level indication function. Removal of the level indication function makes the TS consistent with those of IP2 which also incorporates the lo-lo alarm function in the RWST TS but not the level indication function.

6.0 REFERENCES

1. NRC letter to Entergy regarding Emergency Response Capability – Conformance to RG 1.97 Revision 3, for Indian Point 3 (TAC No. 51099), dated April 3, 1991.
2. NUREG 1431, Standard Technical Specifications for Westinghouse Plants, Revision 1, dated March 2004.

ATTACHMENT 2 TO NL-09-062

**MARKUP OF TECHNICAL SPECIFICATION PAGE FOR PROPOSED CHANGE
REGARDING RWST SURVEILLANCE REQUIREMENTS**

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

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

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.5.4.1 -----NOTE----- Only required to be performed when ambient air temperature is < 35°F or > 110°F. ----- Verify RWST borated water temperature is $\geq 35^{\circ}\text{F}$ and $\leq 110^{\circ}\text{F}$.</p>	24 hours
<p>SR 3.5.4.2 Verify RWST borated water level is ≥ 35.4 feet.</p>	7 days
<p>SR 3.5.4.3 Verify RWST boron concentration is ≥ 2400 ppm and ≤ 2600 ppm.</p>	31 days
<p>SR 3.5.4.4 Perform CHANNEL CHECK of RWST level</p>	7 days
<p>SR 3.5.4.5 Perform CHANNEL CALIBRATION of RWST level indicating switch and ensure the low level alarm setpoint is ≥ 10.5 feet and ≤ 12.5 feet.</p>	184 days
<p>SR 3.5.4.6 Perform CHANNEL CALIBRATION of RWST level transmitter and ensure the low level alarm setpoint is ≥ 10.5 feet and ≤ 12.5 feet.</p>	18 months