UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 28, 2010

Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - ISSUANCE OF AMENDMENT RE: REFUELING WATER STORAGE TANK LEVEL INSTRUMENTATION (TAC NO. ME1751)

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 241 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated July 23, 2009.

The amendment removes the local refueling water storage tank level indication from TS Surveillance Requirement 3.5.4.5.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

John P. Boska

John P. Boska, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosures:
1. Amendment No. 241 to DPR-64
2. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
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ENTERGY NUCLEAR INDIAN POINT 3, LLC

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 241
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Entergy Nuclear Operations, Inc. (the licensee) dated July 23, 2009, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 241, are hereby incorporated in the license. ENO shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Nancy L. Salgado

Nancy L. Salgado, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Technical Specifications

Date of Issuance: June 28, 2010

ATTACHMENT TO LICENSE AMENDMENT NO. 241

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Replace the following page of the License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page	Insert Page
3	3

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page	Insert Page
3.5.4-2	3.5.4-2

(4) ENO pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; Amdt. 203 11/27/00

(5) ENO pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility. Amdt. 203 11/27/00

C. This amended license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

ENO is authorized to operate the facility at steady state reactor core power levels not in excess of 3216 megawatts thermal (100% of rated power).

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 241, are hereby incorporated in the License. ENO shall operate the facility in accordance with the Technical Specifications.

(3) (DELETED) Amdt. 205 2-27-01

(4) (DELETED) Amdt. 205 2-27-01

D. (DELETED) Amdt.46 2-16-83

E. (DELETED) Amdt.37 5-14-81

F. This amended license is also subject to appropriate conditions by the New York State Department of Environmental Conservation in its letter of May 2, 1975, to Consolidated Edison Company of New York, Inc., granting a Section 401 certification under the Federal Water Pollution Control Act Amendments of 1972.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
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 ≥ 35°F and ≤ 110°F.	24 hours
SR 3.5.4.2	Verify RWST borated water level is ≥ 35.4 feet.	7 days
SR 3.5.4.3	Verify RWST boron concentration is ≥ 2400 ppm and ≤ 2600 ppm.	31 days
SR 3.5.4.4	Perform CHANNEL CHECK of RWST level.	7 days
SR 3.5.4.5	Perform CHANNEL CALIBRATION of RWST level switch and ensure the low level alarm setpoint is ≥10.5 ft and ≤12.5 ft.	184 days
SR 3.5.4.6	Perform CHANNEL CALIBRATION of RWST level transmitter and ensure the low level alarm setpoint is ≥10.5 ft and ≤12.5 ft.	18 months

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 241 TO FACILITY OPERATING LICENSE NO. DPR-64

ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

DOCKET NO. 50-286

1.0 INTRODUCTION

By letter dated July 23, 2009, Agencywide Documents Access and Management System (ADAMS) Accession No. ML092120126, Entergy Nuclear Operations, Inc. (Entergy or the licensee) submitted a request for changes to the Indian Point Nuclear Generating Unit No. 3 (IP3) Technical Specifications (TS). The proposed changes would revise TS 3.5.4, "Refueling Water Storage Tank (RWST)," to remove the RWST local level indication from TS Surveillance Requirement (SR) 3.5.4.5.

2.0 REGULATORY EVALUATION

The following explains the applicability of General Design Criteria (GDC) for IP3. The construction permit for IP3 was issued by the Atomic Energy Commission (AEC) on August 13, 1969, and the operating license was issued on December 12, 1975. The plant GDC are listed in the Updated Final Safety Analysis Report (UFSAR) Chapter 1.3, "General Design Criteria", with more details given in the applicable UFSAR sections. The AEC published the final rule that added Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," in the *Federal Register* (36 FR 3255) on February 20, 1971, with the rule effective on May 21, 1971. In accordance with a Nuclear Regulatory Commission (NRC) staff requirements memorandum from S. J. Chilk to J. M. Taylor, "SECY-92-223 - Resolution of Deviations Identified During the Systematic Evaluation Program," dated September 18, 1992 (ADAMS Accession No. ML003763736), the Commission decided not to apply the Appendix A GDC to plants with construction permits issued prior to May 21, 1971. Therefore, the GDC which constitute the licensing bases for IP3 are those in the UFSAR.

As discussed in the UFSAR, the licensees for IP3 have made some changes to the facility over the life of the unit that have committed to some of the GDCs from 10 CFR Part 50, Appendix A. The extent to which the Appendix A GDC have been invoked can be found in specific sections of the UFSAR and in other IP3 licensing basis documentation, such as license amendments.

The following GDCs, quoted from the UFSAR, pertain to this license amendment:

> GDC-11: The facility shall be provided with a control room from which actions to maintain safe operational status of the plant can be controlled. Adequate radiation protection shall be provided to permit continuous occupancy of the control room under any credible post-accident condition or as an alternative, access to other areas of the facility as necessary to shut down and maintain safe control of the facility without excessive radiation exposure of personnel.
>
> GDC-12: Instrumentation and controls shall be provided as required to monitor and maintain within prescribed operating ranges essential reactor facility operating variables.
>
> GDC-13: Means shall be provided for monitoring or otherwise measuring and maintaining control over the fission process throughout core life under all conditions that can reasonably be anticipated to cause variations in reactivity of the core.

Section 182a of the Atomic Energy Act (Act) requires applicants for nuclear power plant operating licenses to include TSs as part of the license. The licensee provides TSs in order to maintain the operational capability of structures, systems and components that are required to protect the health and safety of the public. The Commission's regulatory requirements that are related to the content of the TS are contained in 10 CFR 50.36. The TS requirements in 10 CFR 50.36 include the following categories: (1) safety limits, limiting safety systems settings and limiting control settings; (2) limiting conditions for operation (LCOs); (3) SRs; (4) design features; and (5) administrative controls.

10 CFR 50.59(c)(1)(i) requires a licensee to submit a license amendment application pursuant to 10 CFR 50.90 if a change to the TS is required. Furthermore, the requirements of 10 CFR 50.59 necessitate that NRC approve the TS changes before the TS changes are implemented.

Specifically, 10 CFR 50.36(c)(2)(ii) requires that a TS LCO be established for each item meeting one or more of the following criteria:

Criterion 1	Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
Criterion 2	A process variable, design feature, or operating restriction that is an initial condition for a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of the fission product barrier.
Criterion 3	A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of the fission product barrier.

Criterion 4 A structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety.

10 CFR 50.36(c)(3), "Surveillance requirements," states that SRs are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the LCOs will be met.

In addition to the above criteria in 10 CFR 50.36, the NRC staff reviewed the proposed changes using other applicable regulatory guidance and docketed information including the following:

- Regulatory Guide (RG) 1.97, "Instrumentation For Light-Water-Cooled Nuclear Power Plants To Assess Plant And Environs Conditions During And Following An Accident," Revision 3, describes a method acceptable to the NRC staff for complying with the Commission's regulations to provide instrumentation for monitoring plant variables and systems during and after an accident.

3.0 TECHNICAL EVALUATION

The RWST supplies water to the emergency core cooling system (ECCS) during the injection phase of a loss-of-coolant accident (LOCA). The switchover from the injection phase to the recirculation phase is manually initiated when the RWST level has reached the low level alarm setpoint, which is given in TS SR 3.5.4.5 and SR 3.5.4.6, and sufficient coolant inventory to support pump operation during the recirculation phase is verified to be in the containment. Therefore, the RWST low level setpoint is monitored for accident response purposes. Note that the licensee's submittal refers to this alarm as the "lo-lo level alarm."

The primary purpose of the accident monitoring instrumentation is to display plant variables that provide information required by the control room operators during accident situations. RG 1.97 instrumentation fulfills the requirements of either 10 CFR 50.36(c)(2)(ii) Criterion 3 or Criterion 4. The requirements of 10 CFR 50.36(c)(2)(ii) Criterion 1 and Criterion 2 are not applicable to RG 1.97 instrumentation.

RG 1.97 recommends that Type A instrumentation be provided for variables that provide primary information needed by the control room operating personnel to take specified manual actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for design basis events. Type A instrumentation fulfills the requirements of 10 CFR 50.36(c)(2)(ii) Criterion 3.

RG 1.97 also provides design and qualification criteria separated into three categories (Category 1, Category 2, and Category 3) that provide a graded approach depending on the importance to safety of the measurement of a specific variable. Category 1 instrumentation fulfills the requirements of 10 CFR 50.36(c)(2)(ii) Criterion 4. RG 1.97 instrumentation that is not classified as Type A or Category 1 does not fulfill the requirements of 10 CFR 50.36(c)(2)(ii) Criterion 3 or Criterion 4 and does not need to be included in the TS.

RG 1.97 Type D variables are those variables that provide information to indicate the operation of individual safety systems and other systems important to safety. These variables are to assist

the operator to make appropriate decisions in using the individual systems important to safety in mitigating the consequences of an accident. RG 1.97 recommends that Type D, Category 2, RWST level indication instrumentation be provided in the control room to monitor the operation of safety injection systems.

At IP3, the RWST low level alarm is identified as a RG 1.97 Type A variable. The RWST low level alarm is the primary means used for the manual switchover to the recirculation phase for a LOCA. The IP3 RWST level instrumentation also includes control room indication as a RG 1.97 Type D, Category 2 variable. Additionally, IP3 has a local RWST level indication that is not a RG 1.97 variable.

The IP3 RWST level instrumentation consists of instrumentation in Loops L-920 and L-921. Loop L-920 provides the control room level indication and one channel of the control room low level alarm. The L-920 instrumentation is required to be calibrated by SR 3.5.4.6. Loop L-921 provides the local level indication via a level indicating switch and provides the redundant channel of the control room low level alarm. The L-921 instrumentation is required to be calibrated by SR 3.5.4.5.

The licensee proposed a change to SR 3.5.4.5 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." The proposed change would remove the channel calibration of the local RWST level indication from SR 3.5.4.5, but would not remove the low level alarm function. The local RWST level indication is not a RG 1.97 variable and is not required to be in the TS by 10 CFR 50.36(c)(2)(ii) Criterion 4.

As a RG 1.97 Type A variable, the RWST low level alarm meets the requirements of 10 CFR 50.36(c)(2)(ii) Criterion 3 and should be in the TS. With the proposed change, the channel calibration of one channel of the low level alarm would be performed by SR 3.5.4.5 and the channel calibration of the second channel of the RWST low level alarm would be performed by SR 3.5.4.6. This fulfills the requirements of 10 CFR 50.36(c)(2)(ii) Criterion 3 and 10 CFR 50.36(c)(3).

The proposed change does not affect the control room RWST level indication. Although the control room RWST level indication is classified as a RG 1.97 Type D Category 2 variable and is not required to be in the TS by 10 CFR 50.36(c)(2)(ii) Criterion 4, the control room RWST level indication would remain in the TS.

Based on the above discussion, with the removal of the local RWST level indication from SR 3.5.4.5, IP3 continues to meet the requirements of 10 CFR 50.36, GDC-11, GDC-12, and GDC-13. This change does not affect conformance with the licensee's commitment to RG 1.97. The removal of the local RWST level indication from SR 3.5.4.5 is, therefore, acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (74 FR 51329). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: B. Marcus

Date: June 28, 2010

June 28, 2010

Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
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P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - ISSUANCE OF AMENDMENT RE: REFUELING WATER STORAGE TANK LEVEL INSTRUMENTATION (TAC NO. ME1751)

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Sincerely,

/ra/
John P. Boska, Senior Project Manager
Plant Licensing Branch I-1
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DATE	6/7/10	6/14/10	5/13/10	6/16/10	6/25/2010	6/28/10

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DATED: June 28, 2010

AMENDMENT NO. 241 TO FACILITY OPERATING LICENSE NO. DPR-64 INDIAN POINT UNIT 3

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