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July 26, 2006

Indian Point Unit 2
Docket No. 50-247
NL-06-066

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, D.C. 20555-0001

Subject: Proposed Emergency Change to the Technical Specification
Requirement for Containment Sump Level Indication

Reference: Entergy Letter to NRC regarding "Report on Inoperable Post Accident Monitoring
Instrument LT-940," dated June 22, 2006.

Dear Sir:

Pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(5), Entergy Nuclear Operations, Inc (Entergy) hereby requests an emergency amendment to the Indian Point 2 (IP2) Technical Specifications (TS). The proposed change revises Table 3.3.3-1 ("Post Accident Monitoring Instrumentation") referenced in the Limiting Condition for Operation (LCO) 3.3.3, "Post Accident Monitoring Instrumentation". Table 3.3.3-1, Function 6 (Containment Water Level (Containment Sump)) specifies 3 required channels for the Containment Sump water level instrumentation. The proposed change will revise Function 6 to specify 2 required channels. Entergy had previously reported in the referenced letter that one of the three required channels (LT-940) was declared inoperable because it did not meet environmental qualification requirements. On July 24, 2006 a second of the three required channels was declared inoperable (LT-3300) because the instrument was not responding as expected. Therefore, this emergency amendment request is being submitted to preclude an unnecessary plant shutdown within the 7 days required by the current TS action statement.

The provisions of 10 CFR 50.91(a)(5) apply because Entergy could not have foreseen the inoperability of a second channel in the relatively short time during which the planned

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amendment request was being developed. A shutdown to repair an inoperable instrument is unnecessary since the TS requirement for three water level monitors is unnecessarily restrictive. Regulatory Guide 1.97 and the Standard Technical Specifications require only two monitors for this function.

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 Entergy has determined that this proposed change involves no significant hazards considerations, as described in Attachment 1. The proposed changes to the Technical Specification are shown in Attachment 2. Planned changes to the Bases are included in Attachment 2 for information.

A copy of this letter with the attachment containing the proposed changes, safety evaluation and marked up Technical Specification pages is being provided as required by 10 CFR 50.91 to the designated New York State official.

This submittal contains no new commitments. If you have any questions, please contact Mr. Patric W. Conroy, Licensing Manager, at (914) 734-6668.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 26, 2006

Sincerely,



Fred R. Dacimo
Site Vice President
Indian Point Energy Center

Attachment:

1. Analysis of Proposed Technical Specification Change Regarding Containment Sump Water Level Instrumentation
2. Markup of Technical Specification and Bases Pages Regarding Containment Sump Water Level Instrumentation

cc: Mr. Samuel J. Collins, Regional Administrator, NRC Region 1
Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
NRC Resident Inspectors Office, Indian Point 2
Mr. Paul Eddy, NYS Department of Public Service
Mr. Peter R. Smith, President NYSERDA

ATTACHMENT 1 TO NL-06-066

**ANALYSIS OF PROPOSED TECHNICAL SPECIFICATION CHANGE
REGARDING CONTAINMENT SUMP WATER LEVEL
INSTRUMENTATION**

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

1.0 DESCRIPTION

The proposed change to Section 3.3.3, Table 3.3.3-1 ("Post Accident Monitoring Instrumentation") of the Indian Point 2 (IP2) Technical Specifications (TS) revises the existing requirement for three channels of the Containment Water Level (Containment Sump) function (function 6) to require two water level channels in the Containment Sump.

Entergy had previously reported (Reference 1) that one of the three required channels (LT-940) was declared inoperable because it did not meet environmental qualification requirements. On July 24, 2006 a second of the three required channels was declared inoperable (LT-3300) because the instrument was not responding as expected. Therefore, this emergency amendment request is being submitted to preclude an unnecessary plant shutdown within the 7 days required by the current TS action statement.

The provisions of 10 CFR 50.91(a)(5) apply because Entergy could not have foreseen the inoperability of a second channel in the relatively short time during which the planned amendment request was being developed. A shutdown to repair the inoperable instrument is unnecessary since the TS requirement for three water level monitors is unnecessarily restrictive. Regulatory Guide 1.97 and the Standard Technical Specifications require only two monitors for this function.

2.0 PROPOSED CHANGE

Proposed change to Section 3.3.3, Table 3.3.3-1 of the Indian Point 2 TS is identified below:

Indian Point 2 TS 3.3.3, Table 3.3.3-1 currently says:

"6. Containment Water Level (Containment Sump)	3	E"
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The proposed amendment will revise Table 3.3.3-1 to say:

"6. Containment Water Level (Containment Sump)	2	E"
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Proposed changes to the Bases Section 3.3.3 pertaining to the proposed change are provided in Attachment 2, for information.

3.0 BACKGROUND

The original plant design provided water level monitors LT-940 and LT-941 for the Containment Sump. The initial requirements for environmentally qualified water level monitors were contained in the TMI Short Term Lessons Learned requirements (NUREG-0578). NUREG-0578 required narrow range instruments (from the bottom of the sump to the top of the sump) and wide range instruments (from the bottom of the sump to a containment level equivalent to 600,000 gallons). The narrow range instruments were to be environmentally qualified to Regulatory Guide (RG) 1.89 ("Qualification of Class IE Equipment of Nuclear Power Plants"). In response to NUREG-0578, the NRC was advised (References 2 and 3) that the original level monitors would be credited and that a new instrument to monitor wide range would be added to both the Containment and Recirculation Sumps. This was LT-3300 for the Containment Sump. The original monitors were not seismically or environmentally qualified but the basis for considering them qualified was provided.

The TMI Short Term Lessons Learned requirements were clarified in Generic Letter 80-90 (Reference 4), which forwarded NUREG-0737. These requirements were subsequently incorporated into the requirements of RG 1.97, Revision 2. A 1985 response to the Generic Letter (Reference 5) identified Containment Water Level as a Type A variable and indicated the existing Containment Water Level wide and narrow range monitors would also be used, with upgrades, to meet requirements.

A subsequent letter (Reference 6) clarified the instrumentation to be used to meet RG 1.97 requirements for water level monitoring. The clarification concluded that there was no unique purpose served by the narrow range instruments since the wide range and narrow range instruments covered the same range (i.e., from the bottom of sump to the design flood level). The wide range instruments, LT-3300 in the Containment Sump and LT-3301 in the Recirculation Sump, are redundant, have separate power sources, cover the required range (from the bottom of sumps to above design basis flood level), are continuous monitors and are recorded. The safety evaluation for the RG 1.97 instrumentation (Reference 7) approved the proposed wide range instrumentation for water level monitoring. The SER noted that the Category 1 wide range instruments covered from the bottom of the sump to the design basis flood level and concluded the entire range of expected post accident water levels were therefore covered. The SER also concluded that the sump level is adequately monitored by the wide range instrumentation to preclude the need for narrow range instrumentation. Therefore, LT-940 and LT-941 were not needed to meet the RG 1.97 instrument requirements for containment water level.

The existing TS Section 3.3.3, Table 3.3.3-1 was a change made during the conversion from custom TS to improved technical specifications (ITS). The conversion modified the custom TS requirements for post accident monitors (PAM) to include just RG 1.97 Type A variables in the current TS Section 3.3.3. The custom TS did not have water level sump monitoring identified as a post accident monitoring function in a limiting condition for operation. The TS surveillances did require testing of the discrete and continuous water level monitors in the two sumps but not as a PAM function. The TS conversion added these monitors to the ITS LCO using the initial PAM submittal (Reference 5) as a basis and therefore included LT-3300, LT-940 and LT-941 for the Containment Sump. This resulted in the Containment Sump having a requirement for three water level monitors.

4.0 TECHNICAL ANALYSIS

The current TS requires two level transmitters in the Recirculation Sump and three level transmitters in the Containment Sump and treats each sump as a separate function. The level transmitters specified for use as PAM under RG 1.97 for containment water level are the LT-3300 and LT-3301. The remaining level transmitters were not specified for use as PAM instruments under RG 1.97 and were added to the TS when the conversion to ITS took place. The conversion package (Reference 8) indicated that "ITS 3.3.3, Function 6, Containment Water Level (Containment Sump), is being added to the Technical Specifications because it was identified as a Type A, Category 1 variable in the Indian Point 2 NRC Reg. Guide 1.97 Review of Accident Monitoring Instrumentation." A similar statement was made for Function 5. The December 1985 submittal (Reference 5) was the document that identified the sump monitors as Type A, Category 1 variables, identified three monitors (i.e., LT-940, LT-941 and LT-3300) in the Containment Sump, identified two monitors for the Recirculation Sump, and identified monitoring of water level in the respective sumps as a separate function. With separate functions for each sump, each function needs only two monitors to be consistent with the STS and RG 1.97 requirements. The use of two

monitors in the Recirculation sump is already approved in the TS. The use of two rather than three monitors is acceptable in the Containment Sump for the following reasons:

1. The use of the continuous level monitor LT-3300 to provide both narrow range and wide range functions has been approved.
2. The use of LT-941 as the redundant PAM for the Containment Sump is acceptable because:
 - a. The instruments are electrically separated (the electrical train 2A/3A powers LT-3300 from instrument bus 22 while electrical train 5A powers LT-941 from instrument bus 21A).
 - b. LT-941 provides a readout located on Central Control Room (CCR) Panel SB-1 using 5 indicator lights associated with specific levels. Although LT-941 is a discrete monitor (RG 1.97 requires a continuous monitor), the display is continuous in the sense that the lights associated with each level stay on as long as the level remains above the setpoint and goes off if the water level falls below the setpoint. These lights provide clear indication when a specific set point has been reached and this provides sufficient level confirmation for operator action considering the required levels and the instrument loop error. The lights go on or off in series as the sump and containment water levels rise or fall. The LT-941 lights go on at elevations 40' 5-1/8", 42' 10.5", 46' 8.5", 48' 9", and 51' 7.5" with a 0.5" loop error.
 - c. The LT-941 has been seismically and environmentally qualified (Reference 9).
3. The use of 2 monitors rather than three satisfies the requirements of RG 1.97 that there be two monitors for a function. In addition to the Containment Sump Monitors, the TS require Recirculation Sump water level monitoring and Refueling Water Storage Tank (RWST) level indication that provide redundant information to the Containment Sump Monitors.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

Entergy Nuclear Operations, Inc. (Entergy) has evaluated the safety significance of the proposed change regarding the removal of the LT-940 Containment Sump water level monitor according to the criteria of 10 CFR 50.92, "Issuance of Amendment". Entergy has determined that the subject changes do 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?

Response: No. The proposed change will revise the requirements for water level monitors for the Containment Sump from three to two. These level instruments are provided for monitoring the post-accident water level in the bottom of the containment to aid operator action to initiate recirculation and to assess the potential for excessive level. The presence or absence of the LT-940 instrument has no bearing on accident precursor conditions or events. The proposed requirements will maintain redundancy and will continue to use diverse instruments to provide information to the plant operators to monitor and manage accident conditions.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of previously evaluated accidents.

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

Response: No. The proposed change will revise the requirements for water level monitors for the Containment Sump from three to two. The change reduces the number of channels required but retains redundancy and diversity of indication. The Technical Specification does not require the LT-940 instrument for normal plant operations and does not affect how the plant is operated. The removal of one channel does not create the possibility of any equipment failure or any effect on other equipment. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No. The proposed change will revise the requirements for water level monitors for the Containment Sump. The revised requirement will remain consistent with the requirements found in the Standard Technical Specification for level monitors provided for monitoring the post-accident water level. Other instrument channels will remain in service and provide redundant / diverse indication for operator response to support existing accident mitigation strategies. The proposed change does not involve changes to existing setpoints for automatic or operator actions. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Entergy Nuclear Operations, Inc. concludes that the proposed amendment 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

The proposed change has been evaluated to determine whether applicable requirements continue to be met. IP2 is not a General Design Criteria plant. However, compliance with RG 1.97 is maintained due to continued capability to monitor wide range Containment Sump level indication to allow the performance of operator action using redundant and electrically separated instruments. Diverse instruments, including Recirculation Sump level monitors, and RWST level indicators, provide sufficient information to validate these levels. Therefore continued compliance is maintained with GDC 13 requirements to monitor variables over their anticipated ranges for accident conditions and continued compliance is maintained with GDC 19 requirements for providing a Control Room from which actions can be taken under accident conditions.

5.3 Environmental Considerations

The proposed change to the IP2 Technical Specifications regarding containment sump monitoring 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 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

The proposed change is consistent with the requirements for redundant channels in the STS. The proposed change will also make the Indian Point 2 PAM TS requirements for Containment Sump water level consistent with Indian Point 3.

7.0 REFERENCES

1. Entergy Letter to NRC regarding "Report on Inoperable Post Accident Monitoring Instrument LT-940," dated June 22, 2006.
2. Indian Point 2 Letter dated October 17, 1979 (NL-79-A64).
3. Indian Point 2 Letter dated December 31, 1979 (NL-79-91A).
4. NRC Letter to all Licensees of Operating Plants and Applicants for Operating Licenses and Holders of Construction Permits regarding Preliminary Clarification of the Action Plan Requirements, dated September 5, 1980 (GL 80-90).
5. Indian Point 2 Letter to NRC dated August 30, 1985.
6. Indian Point 2 Letter to NRC regarding Clarification of Information Regarding NUREG-0737 Supplement 1 (Regulatory Guide 1.97, Revision 2), dated October 27, 1989.
7. NRC Letter regarding "Conformance to Regulatory Guide 1.97, Revision 2, (TAC No. 51098) dated September 27, 1990.
8. IP Letter to NRC regarding "License Amendment Request (LAR 02-005) Conversion to Improved Standard Technical Specifications", dated March 26, 2002 (NL-02-016).
9. FCI Report No. 708143, "Qualification Test Report Safety Class 1E FCI Model 8-66MA Liquid Level Transmitter," dated 3/29/1983.

ATTACHMENT 2 TO NL-06-066

**MARKUP OF TECHNICAL SPECIFICATION AND BASES PAGES
REGARDING CONTAINMENT SUMP WATER LEVEL INSTRUMENTATION**

Underline for added text

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

Table 3.3.3-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION		REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION D.1
1.	Reactor Coolant System (RCS) Hot Leg Temperature (Wide Range)	1 per loop ^(a)	E
2.	RCS Cold Leg Temperature (Wide Range)	1 per loop ^(b)	E
3.	RCS Pressure (Wide Range)	2	E
4.	Reactor Vessel Level Indication System (RVLIS)	2	F
5.	Containment Sump Water Level (Recirculation Sumps)	2	E
6.	Containment Water Level (Containment Sump)	32	E
7.	Containment Pressure	2	E
8.	Containment Pressure (High Range)	2	E
9.	Containment Area Radiation (High Range)	2	F
10.	NOT USED		
11.	Pressurizer Level	2	E
12.	Steam Generator (SG) Water Level (Narrow Range)	2 per steam generator	E
13.	Steam Generator Water Level (Wide Range)	4	E
14.	Condensate Storage Tank level	2	F
15.	Core Exit Temperature - Quadrant 1	2 trains ^(c)	E
16.	Core Exit Temperature - Quadrant 2	2 trains ^(c)	E
17.	Core Exit Temperature - Quadrant 3	2 trains ^(c)	E
18.	Core Exit Temperature - Quadrant 4	2 trains ^(c)	E
19.	Auxiliary Feedwater Flow	4	E
20.	Steam Generator Pressure	2 per steam line	E
21.	RCS Subcooling Margin Monitor	2	E
22.	RWST Level	2	E

- (a) The required redundant channel for each of the four loops of RCS hot leg temperature is a qualified Core Exit Temperature train in the quadrant associated with that loop.
- (b) The required redundant channel for each of the four loops of RCS cold leg temperature is any channel of steam generator pressure for that loop.
- (c) A CET train consists of two core exit thermocouples (CETs).

BASES

LCO (continued)

5. Containment Sump Water Level (Recirculation Sump)

Recirculation Sump Water Level is a Type A, category I Function that is provided for verification and long term surveillance of RCS integrity.

Recirculation Sump Water Level is used to determine that water has been delivered to the containment following a LOCA, and subsequently show that sufficient water has been collected by the sump to permit recirculation to the reactor and/or to the spray headers. Recirculation sump water level also provides a diverse indication for RWST level regarding when to begin the recirculation procedure.

This LCO is satisfied by the OPERABILITY of two channels of containment sump water level (Recirculation Sump). LT-939, a magnetic switch/float type detector, is used to meet LCO requirements for one of the two channels. This channel provides a series of five lights each energized from the associated instrument as a preset level is exceeded. LT-3301, a differential pressure transmitter, is used to meet LCO requirements for the second channel. This channel provides a calibrated sump level span that is continuously indicated.

6. Containment Water Level (Containment Sump)

Containment sump water level is a Type A, Category I Function that is needed because the residual heat removal pumps, taking suction from the containment sump, may be used if backup capacity to the internal recirculation loop is required.

This LCO is satisfied by the OPERABILITY of ~~three~~ two channels of ~~containment sump water level~~. ~~LT-940 and LT-941, thermal type detectors, are is~~ used to meet LCO requirements for ~~two~~ one of the ~~three~~ channels. ~~Thise~~ These channels each provides a series of five lights that are energized from the associated instrument when a preset level is exceeded. LT-3300, a differential pressure transmitter, is used to meet LCO requirements for the ~~third~~ second channel. This channel provides a calibrated sump level span that is continuously indicated.

7. Containment Pressure

Containment Pressure (narrow range) is a Type A, Category I Function that is needed for determination of whether a steam line break is inside or outside containment. This Function is also used for the verification of the need for and effectiveness of containment spray and fan cooler units.