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NL-15-128

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U.S. Nuclear Regulatory Commission  
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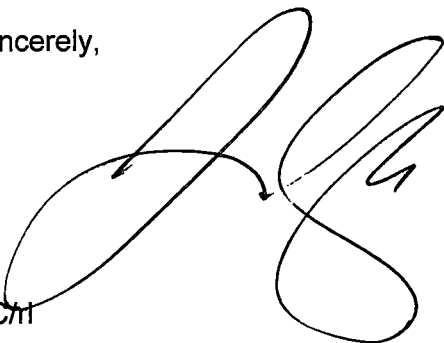
Subject: **10 CFR 50.59(d)(2) Summary Report for Indian Point Unit 3**  
Indian Point Nuclear Generating Unit 3  
Docket No. 50-286  
License No. DPR-64

Dear Sir or Madam:

Pursuant to 10 CFR 50.59(d)(2), Entergy Nuclear Operations, Inc. (Entergy) herein submits in Attachment 1 a 50.59 summary report of the changes, tests and experiments implemented at Indian Point Unit 3 between April 1, 2013 and March 25, 2015, and/or utilized in support of the UFSAR update. The 50.59 Evaluations set forth in the report represent the changes in the facilities, changes in procedures, or tests and experiments implemented pursuant to 10 CFR 50.59.

There are no new commitments made by Entergy contained in this submittal. If you have any questions or require additional information, please contact Mr. Robert Walpole, Regulatory Assurance Manager at (914) 254-6710.

Sincerely,



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Attachment 1 – 50.59(d)(2) Summary Report of Changes, Tests and Experiments

cc: Mr. Daniel H. Dorman, Regional Administrator, NRC Region I  
Mr. Douglas Pickett, NRC, Sr. Project Manager, NRC NRR DORL  
Ms. Bridget Frymire, New York State Dept. of Public Service  
Mr. John B. Rhodes, President and CEO NYSERDA  
NRC Resident Inspector

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ATTACHMENT 1 TO NL-15-128

50.59(d)(2) Summary Report of  
Changes, Tests, and Experiments

Entergy Nuclear Operations, Inc.  
Indian Point Unit 3  
Docket No. 50-286  
License No. DPR-64

**50.59(d)(2) Summary Report of Changes, Tests and Experiments**

<b>50.59 Evaluation No.</b>	<b>Rev. No</b>	<b>TITLE</b>
14-3001-00-EVAL	0	One-Time Extension of TRM Surveillance Frequency (184 days) for TRS 3.8.A.2, DEMONSTRATE Closure of Turbine Steam Stop and Control Valves

**Brief Description of the Change, Test or Experiment:**

One-time extension of 3 months to the TRM Surveillance frequency (184 days) for TRS 3.8.A.2, DEMONSTRATE Closure of Turbine Steam Stop and Control Valves. Surveillance is performed by 3-PT-SAO45, "Main Turbine Stop and Control Valves Exercise Test," Rev 5. With the extension, 3-PT-SAO45 must be completed by 2359 on October 6, 2014.

**Summary of the 10 CFR 50.59 Evaluation**

WCAP-11525 established the probabilistic method and basis for Westinghouse BB-95/96 Turbine Stop and Control Valve testing frequency. WOG-TVTF-93-17 (8/6/93) incorporated more failure data and turbine operating hours into the frequency determination. It allowed a maximum test frequency of 6 months, but because of the still limited nuclear steam turbine operating hours data, did not allow more than a calendar 184 days test interval to maintain a high enough confidence in the methodology.

WCAP-11525 was further updated by WCAP-16054 (April 2003) data which provided sufficient confidence to establish probabilities of destructive turbine overspeed acceptable to the NRC (< 1.0E-5 annual probability) with a turbine valve test interval up to one (1) year. Using Figure 7-1, from WCAP-16054 for a 7 month test interval (i.e. a one (1) month surveillance extension), a probability of failure resulted that was lower than the original basis for the 184 day interval specified by TRS 3.8.A.2. Therefore, a one-time extension of the turbine stop & control valve test interval will not result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component important to safety previously evaluated in the UFSAR or the TRM. This one-time extension will also not more than minimally increase the consequences of any accident or malfunction previously evaluated in the UFSAR or TRM.

<b>50.59 Evaluation No.</b>	<b>Rev. No</b>	<b>TITLE</b>
14-3002-00-EVAL	0	Installation of New 42" Natural Gas Pipeline South of IPEC

**Brief Description of the Change, Test or Experiment:**

Spectra Energy Transmission LLC / Algonquin Gas Transmission, LLC has filed with FERC a proposal to expand its natural gas transmission capacity by installing a new 42 inch diameter pipeline that transmits gas at higher pressures than the current pipelines. The 42 inch pipeline is currently proposed to cross the Hudson River south of Indian Point, be routed on the west side of Broadway where it enters the IPEC owner controlled area before passing under Broadway and near the IPEC switchyard and the Gas Turbine 2/3 Fuel Oil Storage Tank (GT 2/3 FOST) and eventually joining with the existing natural gas pipelines.

Summary of the 10 CFR 50.59 Evaluation

This evaluation analyzes the effect of the proposed pipeline on the Indian Point site and concludes the change is acceptable. Currently, a 26 inch and 30 inch pipeline traverse the site along a route just south of the protected area and the effects of a rupture of that pipeline has been evaluated. For purposes of this evaluation once installed, the existing 26 inch pipeline and 30 inch pipeline are assumed to remain in use. The addition of a 42 inch pipeline south of the IPEC property that crosses IPEC property near the GT 2/3 Fuel Oil Storage Tank (FOST) and Buchanan substation creates the possibility of a gas pipeline rupture. The new gas pipeline has been routed where a gas pipeline rupture could not cause malfunction of a safety-related Structures Systems and Components (SSC) or security provisions. Therefore, there would be no increase in the likelihood of damage to those SSC. The routing is where a postulated rupture could cause a malfunction of SSC's important to safety (ITS) [Switchyard with associated transmission lines, Gas Turbine 2/3 Fuel Oil Storage Tank (GT 2/3 FOST), and Emergency Operations Facility (EOF) and meteorological tower] due to proximity. The likelihood of a gas pipeline rupture causing malfunction of SSCs ITS will be minimized by the gas pipeline design and maintenance as well as the enhancement of a substantial portion of that gas pipeline routed near the SSCs ITS. Gas pipelines have a low frequency of rupture. The new gas pipeline has been designed with the latest methodology and a significant portion has been enhanced with additional features (e.g., deeper burial, thicker pipe, stronger materials, positive means to prevent excavation and abrasion resistance coating) intended to further reduce the frequency of gas pipeline rupture in the area of SSC's ITS. The frequency is sufficiently low that the new gas pipeline will not result in more than a minimal increase in the frequency of occurrence of an accident (gas pipeline rupture) currently evaluated in the UFSAR.

50.59 Evaluation No.	Rev. No	TITLE
15-3001-00-EVAL	0	One-Time Extension of TRM Surveillance Frequency (184 days) for TRS 3.8.A.2, DEMONSTRATE Closure of Turbine Steam Stop and Control Valves

Brief Description of the Change, Test or Experiment:

One-time extension of 1 month to the TRM Surveillance frequency (184 days) for TRS 3.8.A.2, DEMONSTRATE Closure of Turbine Steam Stop and Control Valves. Surveillance is performed by 3-PT-SAO45, "Main Turbine Stop and Control Valves Exercise Test," Rev 5. With the extension, 3-PT-SAO45 must be completed by 1157 on March 13, 2015.

Summary of the 10 CFR 50.59 Evaluation

WCAP-11525 established the probabilistic method and basis for Westinghouse BB-95/96 Turbine Stop and Control Valve testing frequency. WOG-TVTF-93-17 (8/6/93) incorporated more failure data and turbine operating hours into the frequency determination. It allowed a maximum test frequency of 6 months, but because of the still limited nuclear steam turbine operating hours data, did not allow more than a calendar 184 days test interval to maintain a high enough confidence in the methodology.

WCAP-11525 was further updated by WCAP-16054 (April 2003) data which provided sufficient confidence to establish probabilities of destructive turbine overspeed acceptable to the NRC (< 1.0E-5 annual probability) with a turbine valve test interval up to one (1) year. Using Figure 7-1, from WCAP-16054 for a 7 month test interval (i.e. a one (1) month surveillance extension), a probability of failure resulted that was lower than the original basis for the 184 day interval specified by TRS 3.8.A.2. Therefore, a one-time extension of the turbine stop & control valve test interval will not result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component important to safety previously evaluated in the UFSAR or the TRM. This one-time extension will also not more than minimally increase the consequences of any accident or malfunction previously evaluated in the UFSAR or TRM.

50.59 Evaluation No.	Rev. No	TITLE
15-3002-00-EVAL	0	TRM 3.3.C Requires, in part, Two Operable Acoustic Monitors for Monitoring Power Operated Relief Valve (PORV) RC-PCV-45C and RC-PCV-456 tailpipe conditions

Brief Description of the Change, Test or Experiment:

Technical Requirements Manual (TRM) TRO 3.3.C requires, in part, two operable acoustic monitors for monitoring Power Operated Relief Valve (PORV) RC-PCV-455C and RC-PCV-456 tailpipe conditions. The acoustic monitor for RC-PCV-455C is currently non-functional. It is proposed to change the TRM (TRO 3.3.C.9 and Bases 3.3.C.9) and UFSAR (6.7.2.3 and 7.5.4 / Table 7.5.1) to permit operation with this condition for Cycle 19. The redundant system consisting of the existing EQ and safety related limit switch position indicators would provide the necessary RC-PCV-455C position indication. In addition, temperature element TE-463, PRT level transmitter LT-470, and PRT temperature element TE-471, although not having the same pedigree as the limit switch system, can also be used as indication of RC-PCV-455C condition.

Summary of the 10 CFR 50.59 Evaluation

The probability of occurrence and the consequences of both accidents and component malfunctions are basically unaffected by having a non-functional acoustic monitor associated with RC-PCV-455C. The acoustic monitoring system was installed as a result of Regulatory Guide 1.97 so that should there be any significant leakage from the PORVs, an alarm would be initiated in the Control Room. The alternate methods available of monitoring PORV position, specifically the valve limit switch position indication, ensure that any leakage is promptly identified and appropriate actions taken to mitigate it. Therefore, no detrimental impact on accident and transient analysis from this condition is introduced.