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Anthony J. Vitale Site Vice President

NL-16-109

September 19, 2016

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk 11545 Rockville Pike, TWFN-2 F1 Rockville, MD 20852-2738

Subject:

Indian Point Unit No. 2 Amendment Update to the

<u>Updated Final Safety Analysis Report (UFSAR), Revision 26</u>

Indian Point Nuclear Generating Unit No. 2

Docket No. 50-247 License No. DPR-26

References:

- 1. NEI 98-03, "Guidelines for Updating Final Safety Analysis Reports," Revision 1, June 1999
- 2. NEI 99-04, "Guidelines for Managing NRC Commitments," Revision 2, December 1995

Dear Sir or Madam:

Entergy Nuclear Operations, Inc. (Entergy), in accordance with 10 CFR 50.71(e), hereby transmits the most recent update to the Updated Final Safety Analysis Report (UFSAR) for Indian Point Unit 2 (IP2). This submittal incorporates applicable changes made to the IP2 facility since the UFSAR update in September 2014, through the information available, at a minimum, as of March 17, 2016, which is six months prior to the date of this letter. Note that the last IP2 refueling outage was completed on June 16, 2016. This submittal constitutes the twenty-sixth (26) revision to the IP2 UFSAR.

Entergy is submitting one copy of the entire IP2 UFSAR, IP2 Technical Specification Bases, IP2 Technical Requirements Manual (TRM), and the Holtec International, "Licensing Report on the Inter-Unit Transfer of Spent Nuclear Fuel at the Indian Point Energy Center" in the electronic medium of Adobe PDF on CD-ROM in accordance with the guidance contained in NRC, "General (Non-Adjudicatory) Electronic Submission Instructional Guide," June 11, 2009, Revision 4.

AD53 NRR UFSAR changes to the text and tables since the last revision are indicated by gray highlighted background rather than a revision bar next to the line containing the change. Any UFSAR figures that have been revised since the last revision contain "Rev. 26" in the figure title block.

This update to the FSAR also contains information that has been classified as "Historical" information according to the NEI 98-03 definition (Reference 2), and is no longer subject to updating. Material designated as "Historical" information in the UFSAR is indicated by a green highlighted background.

Attachment 1 to this letter, "Summary Report of IP2 UFSAR Revision 26 Changes," contains a summary with a brief description of the information changed in this revision to the IP2 UFSAR.

IP2 Technical Specification 5.5.12.d, "Technical Specification Bases Control Program," requires that changes to the Bases implemented without prior NRC approval be provided to the NRC on a frequency consistent with 10 CFR 50.71(e). The required information is provided in Attachment 2, "Summary of Revisions to the IP2 Technical Specification Bases" and the entire document is provided on the enclosed DVD.

As specified in NEI 98-03 (Reference 1), the Technical Requirements Manual (TRM) is controlled in a manner consistent with procedures fully or partially described in the UFSAR. Under this approach, the TRM document is subject to the change control requirements of 10 CFR 50.59. A "Summary of Revisions to the IP2 Technical Requirements Manual (TRM)" is provided in Attachment 3, and the entire document is provided on the enclosed DVD.

NEI 99-04 (Reference 2) provides guidance on the commitments which may be changed without prior NRC approval, but which require periodic NRC staff notification either annually or along with the FSAR updates as required by 10 CFR 50.71(e). This periodic update is not required if individual notifications of commitment changes have previously been filed with the NRC. In this reporting period, all commitment changes have previously been individually communicated to the NRC. Therefore, this letter does not contain a commitment change summary report as an attachment.

As specified in NEI 98-03 (Reference 2), the Holtec International, "Licensing Report on the Inter-Unit Transfer of Spent Nuclear Fuel at the Indian Point Energy Center" is a licensee controlled document that is explicitly "incorporated by reference" into the IPEC IP2 and IP3 UFSARs. Under this approach, the referenced document is subject to the change control requirements of 10 CFR 50.59 and the update/reporting requirements of 10 CFR 50.71(e). The entire document is provided on the enclosed DVD.

There are no new commitments contained in this letter. In the event of any questions, please contact Mr. Robert W. Walpole, Manager, Regulatory Assurance at 914-254-6710.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 19, 2016

Date

Mital

Sincerely,

Attachments:

- 1. Summary Report of IP2 UFSAR Revision 26 Changes
- 2. Summary of Revisions to the IP2 Technical Specification Bases
- 3. Summary of Revisions to the IP2 Technical Requirements Manual (TRM)

Enclosure: DVD containing the IP2 UFSAR (Rev. 26) files, entire documents of the IP2
Technical Specification Bases, IP2 TRM, and Rev. 6 of the Holtec
International Licensing Penert on the International Licensing Penert P

International Licensing Report on the Inter-Unit Transfer of Spent Nuclear Fuel at IPEC

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cc w/o enclosure:

Mr. Daniel H. Dorman, Regional Administrator, NRC Region 1.

Mr. Douglas V. Pickett, Senior Project Manager, NRC NRR DORL

Ms. Bridget Frymire, New York State Department of Public Service

Mr. John B. Rhodes, President and CEO, NYSERDA

NRC Resident Inspectors

Attachment 1 to NL-16-109

Summary Report of IP2 UFSAR Revision 26 Changes

ENTERGY NUCLEAR OPERATIONS, INC. Indian Point Nuclear Generating Unit No. 2 Docket No. 50-247 License No. DPR-26

UFSAR SECTION	AFFECTED PAGES, TABLE, FIGURE	SOURCE(S) of CHANGE, EC, 50.59, PAD, SCREEN NOs	INFORMATION / DESCRIPTION OF CHANGES
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CHAPTER '	1		•
1.3.7	21	EC-36416 TS Amendment 276 (RA-14-110)	Changes associated with crediting four fan cooler units in the containment integrity analysis for the limiting single failure (EDG 23) (reanalysis by Westinghouse to address long-term mass and energy release errors identified in NSALs 11-05 and 14-2)
1.9.2	35	Editorial	Addition of Revision 26 to the list of revisions
CHAPTER	2		
2.2.3	3	PAD	Add a description of the addition of a 42 inch pipeline for gas routed through the southeast corner of the site
CHAPTER	3	,	•
3.0 3.1.1 3.2.1.1.1.7 3.2.3.2.1.1 3.2.6 3.2 3.2 Figures 3.2	1 13 43,45,46 59,60 T3.2-1A / 70 T3.2-7 / 77-79 82 F3.2-68A F3.2-68B	EC-52275	Cycle 23 fuel and core design
3.2.2.1 3.2.2.4 3.2.2.6 3.2.3 3.2.3.2.1 3.2.6 3.2 References 3.2	25,27-29 33 36 36 43,51 60 61,65 F3.2-61C	Editorial / Typographical	
CHAPTER 4	4		
None			

UFSAR SECTION	AFFECTED PAGES, TABLE, FIGURE	SOURCE(S) of CHANGE, EC, 50.59, PAD, SCREEN NOs	INFORMATION / DESCRIPTION OF CHANGES
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CHAPTER	5		
5.1.1.1.6	4	EC-36416 TS Amendment 276 (RA-14-110)	Changes associated with crediting four fan cooler units in the containment integrity analysis for the limiting single failure (EDG 23) (reanalysis by Westinghouse to address long-term mass and energy release errors identified in NSALs 11-05 and 14-2)
5.1.4.2.3	42	EC-17512 Reference CR-IP3- 2016-03653	Replace "temporary closure plate" with Containment Equipment Hatch Closure Plug" in last paragraph per EC-17512 — this was inadvertently not included in LBDCR U2-2010-05-01-002. Delete reference to an outstanding license amendment request (LAR) regarding the roll-up door as an editorial change as there is not a pending LAR.
CHAPTER	6		я
6.2.2.1.2 6.3.1.1 6.3.2.1.2 6.3.3.1 6.3 6.4.1.1 6.4.3.1 6.4	14 62 66 70 T6.3-4 / 74 79 89-90 T6.4-1 / 93	EC-36416 TS Amendment 276 (RA-14-110)	Changes associated with crediting four fan cooler units in the containment integrity analysis for the limiting single failure (EDG 23) (reanalysis by Westinghouse to address long-term mass and energy release errors identified in NSALs 11-05 and 14-2)
6.2.2.1.4	16	EC-57962 CR-IP2-2015-00531	Revision to 2-ES-1.3 switchover sequence
CHAPTER	7		
7.1.4	7	EC-36416 TS Amendment 276 (RA-14-110)	Changes associated with crediting four fan cooler units in the containment integrity analysis for the limiting single failure (EDG 23) (reanalysis by Westinghouse to address long-term mass and energy release errors identified in NSALs 11-05 and 14-2)
7.2.4.3.2	39,40	DRN-06-00911	Correction of the reference to Figure 7.2-26 per DRN-06-00911

UFSAR SECTION	AFFECTED PAGES, TABLE, FIGURE	SOURCE(S) of CHANGE, EC, 50.59, PAD, SCREEN NOs	INFORMATION / DESCRIPTION OF CHANGES
			
7.7.4	104	Con Edison Mod CCP-200204937-I	Revise locations of CCR radio/telephone equipment per
7.7.4.2	105	Applicability Determination 02- 0336-MD-00-AD UFSAR Change Request #1160, per SAO-139 Editorial	modification CCP-200204937I and Applicability Determination 02-0336-MD-00-AD. This was initially submitted by UFSAR Change Request #1160 but the changes were not incorporated into the UFSAR. See CR- IP2-2014-04234. An editorial change is also being made to the original UFSAR Change Request #1160 – bullet 2 in Section 7.7.4 is revised to read, "Indian Point area radios provide the central control room with radio communication to the emergency response facilities and offsite monitoring teams."
CHAPTER 8	and the second s		
8.2 References	26	EC-45752	Revision of reference document due to revision of EDG Loading Calculation FEX-00039
8.2.2.6	15	Editorial Evaluation PE 125387	Addition of footnote: *Note that the "Amptector" may be replaced by the equivalent Westinghouse device, "Westector"
CHAPTER			
9.2	T9.2-6	Editorial	Change 4.238 to 4,238 (Total Tritium in Coolant for Equilibrium Cycle)
9.5.6		EC-55258	Addition of the auxiliary bridge to the list of allowed heavy load lifts over the reactor cavity area while the reactor head is removed and irradiated fuel is in the vessel
9.9.2	113	EC-57018	Alternate Control Room portable breathable air supply configuration
CHAPTER 1	0		
10.2.6.3	20	Editorial	Addition of footnote: *Note that the Amptector" may be
		Evaluation PE 125387	replaced by the equivalent Westinghouse device, 'Westector'
CHAPTER 1	1	, u	
11.2.5.1	32	Approved NRC Change Editorial	Change terminology from thermoluminescent dosimeters (TLDs) to Dosimeters of Legal Record (DLR), and associated changes

UFSAR SECTION

CHAPTER	12		
12.7.1	6	IPEC-EP Rev.15-02 UFSAR -only Change (Obsolete Information)	Revise discussion of Emergency Plan using wording from the document IPEC-EP (Indian Point Energy Center Emergency Plan); correct names of ERFs and Hudson Valley Transportation Management Center; delete obsolete reference
CHAPTER	13		
None			
CHAPTER	14.		
See next pag	ge		

UFSAR SECTION	AFFECTED PAGES, TABLE, FIGURE	SOURCE(S) of CHANGE, EC, 50.59, PAD, SCREEN NOS	INFORMATION / DESCRIPTION OF CHANGES
14.2.1.3	60	EC-50141 (PAD R1) CR-IP2-2016-03652	Removal of word "blind" from description of the temporary cooling of the Spent Fuel Pit as a result of the installation of a removable connection for cooling for FLEX purposes
14.3.5.1.1 14.3.5.3.1 14.3.5.3.2 14.3.5.3.5 14.3.5.3.9 14.3 References 14.3 Tables	119-120 120 130 130 132 133 133 149 T14.3-15/163 T14.3- 16/164-167 T14.3- 17/169-173 T14.3- 18/174-175 T14.3-19/176 T14.3-20/177 T14.3- 21/178-179 T14.3- 22/180-184 T14.3- 27/186-187 T14.3- 22/180-184 T14.3- 27/186-187 T14.3- 28/188-192 T14.3-29/193 T14.3-30/194 T14.3-31/195 T14.3-31/195 T14.3-31/195 T14.3-33/197 T14.3-34/197 T14.3-34/197 T14.3-34/197 T14.3-38/203 T14.3-39/204 14.3 Figures/218	EC-36416 TS Amendment 276 (RA-14-110)	of a removable connection for cooling for FLEX purposes Changes associated with crediting four fan cooler units in the containment integrity analysis for the limiting single failure (EDG 23) (reanalysis by Westinghouse to address long-term mass and energy release errors identified in NSALs 11-05 and 14-2)
	Figures/218 F14.3-105 thru F14.3- 114		

UFSAR SECTION	AFFECTED PAGES, TABLE, FIGURE	SOURCE(S) of CHANGE, EC, 50.59, PAD, SCREEN NOs	INFORMATION / DESCRIPTION OF CHANGES
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Appendix A	– License Re	enewal	
A.2.1.5 A.2.1.20 A.2.1.28 A.2.3	4 14 21 33	A.2.1.20 - NRC SER dated October 2009 (NUREG-1930), Section 3.0.3.3.5 A.2.1.5, A.2.1.28 - NRC SER dated November 2014 (NUREG-1930 Supplement 2), Sections 3.0.3.1.2 & 3.4.2.A.3.5 A.2.3 - Editorial	The descriptions for the Buried Piping and Tanks Inspection Program, the Nickel Alloy Inspection Program, and the Periodic Surveillance and Preventive Maintenance Program are revised per NRC SER dated October 2009 (NUREG-1930), and NRC SER dated November 2014 (NUREG-1930 Supplement 2). NRC SER Supplement 2 is added as a Reference (Section A.2.3)
Drawings		3.4	<u> </u>
5.1, 6.2, 7.2, 8.2, 9.2, 9.3, 9.4, 9.6, 10.2	30 drawings – see LBDCR for list	Inclusion of latest revision of Controlled documents	Replacement of drawings with their current revisions

Attachment 2 to NL-16-109

Summary of Revisions to the IP2 Technical Specification Bases

ENTERGY NUCLEAR OPERATIONS, INC. Indian Point Nuclear Generating Unit No. 2
Docket No. 50-247
License No. DPR-26

Summary of Revisions to the IP2 Technical Specification Bases

(Since last reported September 17, 2014)

AFFECTED SECTION	REV	EFFECTIVE DATE	DESCRIPTION		
, ,	BASES UPDATE PACKAGE 49 – 10032014				
B 3.4.13	5	10/3/2014	TS Amendment 177 SG allowable leakage reduced to 85 gallons per day per SG		
	BASES UPDATE PACKAGE 50 – 8272015				
B 3.4.17	1	8/27/2015	TS Amendment 281 SG Inspection frequencies and tube sample selection		

Attachment 3 to NL-16-109

Summary of Revisions to the IP2 Technical Requirements Manual (TRM)

ENTERGY NUCLEAR OPERATIONS, INC. Indian Point Nuclear Generating Unit No. 2 Docket No. 50-247 License No. DPR-26

Summary of Revisions to the IP2 Technical Requirements Manual (TRM)

(since last reported September 17, 2014)

AFFECTED SECTIONS	NEW REV#	EFFECTIVE DATE	DESCRIPTION
3.2.A B3.2.A	3	11/17/2014	Corrected the TRM and Bases to note that SR 3.2.4.2 provides an accurate means of tilt monitoring since calculations are not practical with an NIS power range channel inoperable
3.3.B	3	11/17/2014	Editorial change to correct the page not properly incorporated
5.5.B	13	11/17/2014	Revised to procedural reference to the program controlling primary coolant sources outside containment
3.7.A	4	5/7/2015	Deleted the TRM which was superseded by TS LCO 3.0.8
3.7.D	4	3/18/2016	Revise the TRM surveillance frequencies to reconcile
3.7.H	1		the current TRM frequencies and the testing
3.7.1	1		frequencies currently in place
3.7.D / 3.7.D	4	3/18/2016	Revise the action statements from "Present a report to
3.7.G / 3.7.G	2		OSRC on corrective action" to Issue a CR and, in
3.7.I / B3.7.I	1		response to a CA, prepare a corrective action report outlining the cause of the inoperability, the extent of
3.7.J / B3.7.J	1		condition, and the plans and schedule for restoring the
3.8.C / 3.8.C	3		equipment to FUNCTIONAL status"
3.10.A /	0 '	6/11/2016	Revised the TRM and associated Bases to reflect
B3.10.A			FLEX equipment, FLEX connections and the Spent Fuel Pool Level Instruments
3.10.B / B3.10.B	0		1 doi 1 doi Level mandimenta
3.10.C / B3.10.C	0		

INDIAN POINT ENERGY CENTER (IPEC) UNIT 2, Docket No. 50-247 Entergy Letter NL-16-109 September 19, 2016

File Naming Table		
Document Title	File Name	
Multiple File Document - Indian Point 2 UFSAR, Rev. 26		
Chapter 1, Introduction and Summary	001_1.1 Introduction and Summary.pdf	
Chapter 1, Figures	001_1.2 Ch 1 Figures.pdf	
Chapter 2, Site and Environment	002_2.1 Site and Environment.pdf	
Chapter 2, Figures	002_2.2 Ch 2 Figures.pdf	
Chapter 3, Reactor	003_3.1 Reactor.pdf	
Chapter 3, Figures	003_3.2 Ch 3 Figures.pdf	
Chapter 4, Reactor Coolant System	004_4.1 Reactor Coolant Sys.pdf	
Chapter 4, Figures	004_4.2 Ch 4 Figures.pdf	
Chapter 4, Plant Drawings	004_4.3 Ch 4 Drawings.pdf	
Chapter 5, Containment Systems	005_5.1 Containment Sys.pdf	
Chapter 5, Figures	005_5.2 Ch 5 Figures.pdf	
Chapter 5, Plant Drawings	005_5.3 Ch 5 Drawings.pdf	
Chapter 6, Engineered Safety Features	006_6.1 Engineered Safety Features.pdf	
Chapter 6, Figures	006_6.2 Ch 6 Figures.pdf	
Chapter 6, Plant Drawings	006_6.3 Ch 6 Drawings.pdf	
Chapter 7, Instrumentation and Control	007_7.1 Instrumentation & Control.pdf	
Chapter 7, Figures	007_7.2 Ch 7 Figures.pdf	
Chapter 7, Plant Drawings	007_7.3 Ch 7 Drawings.pdf	
Chapter 8, Electrical Systems	008_8.1 Electrical Systems.pdf	
Chapter 8, Figures	008_8.2 Ch 8 Figures.pdf	
Chapter 8, Plant Drawings	008_8.3 Ch 8 Drawings.pdf	
Chapter 9, Auxiliary and Emergency Systems	009_9.1 Auxiliary and Emergency Sys.pdf	
Chapter 9, Figures	009_9.2 Ch 9 Figures.pdf	
Chapter 9, Plant Drawings	009_9.3 Ch 9 Drawings.pdf	

INDIAN POINT ENERGY CENTER (IPEC)

UNIT 2, Docket No. 50-247

Entergy Letter NL-16-109

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File Naming Table (continued)		
Document Title	File Name	
Multiple File Document - Indian Point 2 UFSAR, Rev. 25		
Chapter 10, Steam and Power Conversion System	010_10.1 Steam and Power Conversion Sys.pdf	
Chapter 10, Figures	010_10.2 Ch 10 Figures.pdf	
Chapter 10, Plant Drawings	010_10.3 Ch 10 Drawings.pdf	
Chapter 11, Waste Disposal and Radiation Protection System	011_11.1 Waste Disposal and Rad Protection Sys.pdf	
Chapter 11, Figures	011_11.2 Ch 11 Figures.pdf	
Chapter 11, Plant Drawings	011_11.3 Ch 11 Drawings.pdf	
Chapter 12, Conduct of Operations	012_12.1 Conduct of Operations.pdf	
Chapter 13, Tests and Operations	013_13.1 Tests and Operations.pdf	
Chapter 14, Safety Analysis	014_14.1 Safety Analysis.pdf	
Chapter 14, Section 14.1 Figures	014_14.2 Ch 14.1 Figures.pdf	
Chapter 14, Section 14.2 Figures	014_14.3 Ch 14.2 Figures.pdf	
Chapter 14, Section 14.3 Figures	014_14.4 Ch 14.3 Figures.pdf	
Appendix A, License Renewal	015_15.1 App A, Lic Renewal.pdf	
Instructions and Key	016_16.1 Instructions and Key.pdf	
Table of Contents	017_17.1 TOC.pdf	
Single File Documents		
Indian Point 2 Technical Requirements Manual (TRM)	001_IP2 TRM.pdf	
Indian Point 2 Technical Specification Bases	002_IP2 Tech Spec Bases.pdf	
Holtec Licensing Report on the Inter-Unit Transfer of Spent Nuclear Fuel	003_Holtec Licensing Report.pdf	