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U.S. Nuclear Regulatory Commission
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Subject: Indian Point 2 and 3 Nuclear Power Plant
Docket Nos. 50-247 and 50-286
License Nos. DPR-26 and DPR 64
Response to Request For Additional Information Regarding NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions
(TAC Nos M96822 and M96823)

Dear Sir:

This letter provides the Indian Point Unit 2 and 3 response to NRC letter dated April 29, 2002 (Reference 1) requesting additional information with respect to NRC Generic Letter 96-06 (Reference 2).

The request for additional information, contained in Section 3.3 of the NRC SER for EPRI Report TR-113594, requested a supplement to the prior Indian Point 2 (IP2) and Indian Point 3 (IP3) responses to address three areas. The first area was certification that the EPRI methodology, including clarifications, approved in the NRC SER was properly applied and that plant-specific risk considerations are consistent with the EPRI letter of February 1, 2002. Entergy Nuclear Operations, Inc. (ENO) has developed plans for evaluating the work done for IP2 and IP3 to provide the technical basis for the requested certification of the methodology. The certification and the risk perspective will be sent to the NRC by January 31, 2003. Responses to the other two areas where information was requested follow:

1) "The additional information that was requested in RAIs that were issued by the NRC staff with respect to the GL 96-06 two-phase flow issue (as applicable)."

   The IP2 responses to GL 96-06 and the associated RAI are contained in letters dated January 28, 1997, August 29, 1997, November 21, 1997 and September 12, 2000 (References 3, 4, 5, and 6). There are no outstanding requests for information associated with these responses. The IP3 responses to GL 96-06 and the associated RAI are contained

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in letters dated January 28, 1997, March 3, 1997, October 14, 1997 and October 23, 1998 (7, 8, 9, and 10). There are no outstanding requests for information associated with these responses.

2) "A brief summary of the results and conclusions that were reached with respect to the waterhammer and two-phase flow issues, including problems that were identified along with corrective actions that were taken. If corrective actions are planned but have not been completed, confirm that the affected systems remain operable and provide the schedule for completing any remaining corrective actions."

   IP2 responses (References 3, 4, 5, and 6) describe the results and conclusions of analyses as well as corrective actions for two-phase flow and waterhammer. IP2 provided the results and conclusions regarding the susceptibility of the IP2 containment fan cooler unit service water system to two-phase flow and waterhammer in Reference 3. The conclusion reached was that waterhammer can occur but that the calculated waterhammer loads during a design basis accident concurrent with a loss of offsite power are less severe than those loads experienced during a loss of offsite power event without accident. It was concluded that the IP2 containment fan cooler service water system would not be subject to failure as a result of two-phase flow and/or waterhammer during postulated accident conditions.

   IP3 responses (Reference 7, 8, 9, and 10) describe the results and conclusion of analyses as well as corrective actions for two-phase flow and waterhammer. Reference 9 provides summary reports and conclusions. The report stated that IP3 "concluded that the containment service water piping and FCUs are capable of withstanding the postulated waterhammers which can occur either during LOOP or LOOP with LOCA events within the design-basis acceptance criteria stated in the UFSAR." Ten service water pipe supports were upgraded, during refuel outage 9, to meet design basis allowable stresses.

The schedule to respond to Reference 1 by January 31, 2003 is the only new commitment made by Entergy in this letter. If you have any questions, please contact Mr. K. Kingsley (914) 734-5581.

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

Very truly yours,

Executed on July 30, 2002
Date

John Herron
Senior Vice President
Indian Point Energy Center
Entergy Nuclear Operations, Inc.

References:

1. NRC Letter, "Electric Power Research Institute (EPRI) Report TR-113594, "Resolution of Generic Letter 96-06 Waterhammer Issues," Volumes 1 and 2 – Indian Point Nuclear Generating Unit Nos 2 and 3 (TAC Nos M96822 and M96823)" dated April 29, 2002.

2. NRC Generic Letter 96-06, "Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions," dated September 30, 1996 and supplement dated November 13, 1997.

3. Indian Point 2 letter, "10 CFR 50.54(f) Notification in Response to NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions (120 Day Response Letter)," dated January 28, 1997.

4. Indian Point 2 letter, "Supplemental Information Regarding10 CFR 50.54(f) Notification in Response to NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions," dated August 29, 1997.

5. Indian Point 2 letter, "Response to Request for Additional Information - Generic Letter 96-06, Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions, for Indian Point Unit No. 2 (TAC No. M96822)," dated November 21, 1997.

6. Indian Point 2 letter, "Response to Request for Additional Information - Generic Letter 96-06, Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions, for Indian Point Unit No. 2 (TAC No. M96822)," dated September 12, 2000.

7. Indian Point 3 letter "Response to NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions" dated January 28, 1997 (IPN-97-012).

8. Indian Point 3 letter "Supplemental Response to NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions" dated March 3, 1997 (IPN-97-027).

9. Indian Point 3 letter "Supplemental Response to NRC Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions" dated October 14, 1997 (IPN-97-141).

10. Indian Point 3 letter "Response to Request for Additional Information regarding Generic Letter 96-06: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions" dated October 23, 1998 (IPN-98-114).

cc:

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