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**J.E. Pollock**  
Site Vice President  
Administration

December 1, 2008  
Indian Point Nuclear  
Generating Unit No. 3  
Docket No. 50-286  
NL-08-171

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

**SUBJECT:** Planned Replacement of Internal Recirculation Pump Bearings in Response to Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors"

**REFERENCES:**

- 1) Entergy letter NL-08-153, 10/17/08, "Request for Extension of Completion Dates for Indian Point Units 2 and 3 Corrective Actions Required by Generic Letter 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors"
- 2) NRC Generic Letter 2004-02, 09/13/04, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors"
- 3) NRC letter to Indian Point Vice President of Operations, 10/30/08, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Approval of Revised Extension Request for Corrective Actions Required by Generic Letter 2004-02 (TAC Nos. MC4689 and MC4690)"
- 4) WCAP-16406-P, Revision 1; Evaluation of Downstream Sump Debris Effects in Support of GSI-191.

Dear Sir or Madam:

On October 17, 2008, Entergy Nuclear Operations, Inc (Entergy) submitted an extension request (Reference 1) to GL 2004-02 (Reference 2). The NRC evaluated the information provided in the extension request and determined that it was acceptable to extend the completion dates for Unit 2 and Unit 3 for the remaining modifications and licensing activities until August 31, 2009 (Reference 3). Entergy stated in Reference 1 that the internal recirculation pump bearings needed to be replaced and that the pump vendor was in the process of identifying a suitable replacement

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bearing material. Entergy also stated that bearing procurement and delivery would be expedited and that the NRC would be notified by December 1, 2008 should these plans not support installation of the replacement bearings during refueling outage 3R15 (spring 2009). On November 25, 2008, Entergy and NRC staff held a teleconference whereby Entergy presented the results of our actions. This submittal formalizes that discussion.

The internal recirculation pumps are Ingersoll Rand model 267-APKD, 3 stage, double suction pumps, with nickel impregnated carbon bearings. This bearing material was selected for this application because it has self lubricating properties that allow for dry starts of the pump. In order to meet performance requirements with debris laden fluid conditions, as analyzed under the guidance of WCAP-16406 Revision 1 (Reference 4), the pump manufacturer indicates that some of the existing bearings need to be replaced with a harder material and others require a modification to break down the pressure differential across the bearings. The latter situation requires a modification to the internal recirculation top bearing housing that involves the design and fabrication of a new casting that will allow the continued use of a dry start bearing material in this location. At this time, the casting is the critical path item, and its design, development and manufacture do not support installation during 3R15. Entergy plans to submit an additional extension request to permit bearing replacement during 3R16 (spring 2011).

There are no new commitments being made in this submittal.

Should you have any questions or require additional information, please contact Mr. R. Walpole, Manager, Licensing at (914) 734-6710.

I declare under the penalty of perjury that the foregoing is true and correct. Executed on December 1<sup>st</sup>, 2008.

Sincerely,



J. E. Pollock  
Site Vice President  
Indian Point Energy Center

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL  
Mr. Samuel J. Collins, Regional Administrator, NRC Region 1  
NRC Resident Inspector, IP3  
Mr. Robert Callender, Vice President, NYSERDA  
Mr. Paul Eddy, New York State Dept. of Public Service