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January 4, 2010

NL-10-001

U.S. Nuclear Regulatory Commission
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SUBJECT: Supplement to Proposed Exigent License Amendment Regarding One Time Extension of the Auxiliary Boiler Feedwater Pump Allowed Outage Time Indian Point Unit Number 3
Docket No. 50-286
License No. DPR-64

REFERENCE: 1. Entergy Letter NL-09-167 to NRC, "Proposed Exigent License Amendment Regarding One Time Extension of the Auxiliary Boiler Feedwater Pump Allowed Outage Time," dated December 15, 2009.
2. Entergy Letter NL-09-172 to NRC, "Supplement to Proposed Exigent License Amendment Regarding One Time Extension of the Auxiliary Boiler Feedwater Pump Allowed Outage Time," dated December 22, 2009.

Dear Sir or Madam:

Entergy Nuclear Operations, Inc, (Entergy) requested a License Amendment to Operating License DPR-64, Docket No. 50-286 for Indian Point Nuclear Generating Unit No. 3 (IP3) in Reference 1. The proposed amendment is to allow a one time extension of the 72 hour completion time of Technical Specification (TS) 3.7.5, Condition B, Action B.1 "Restore AFW train to OPERABLE status" by 34 hours. This request was discussed with the NRC on December 21, 2009 and an additional commitment was made in Reference 2. The purpose of this letter is to provide additional information based on a phone conversation with the NRC on December 30, 2009.

The discussion addressed the sufficiency of the application to explain why there are exigent circumstances. To be exigent under 50.91, the Commission must find that both the licensee and the Commission must act quickly. The discussion noted that Reference 1 indicated "Since the mission time of the turbine pump is fairly short, the 32 ABFP is credited for 29 hours prior to

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transfer to the residual heat removal system, there is no reason to believe the pump would not perform as required." The exigent TS change was requested to allow the causes of the step changes in the vibration of the pump to be evaluated as soon as possible. The initial evaluation in November determined that there was some evidence of misalignment and the extended allowed outage time would allow further evaluation to determine the cause of the high vibrations, to inspect / replace the bearing and to perform other corrective actions as needed to increase the reliability of the pump. Since there was no specific reason determined for the misalignment (an apparent cause evaluation was indeterminate), an additional step change in vibration cannot be absolutely eliminated. Although Entergy does believe the pump to be operable, it is prudent to assess the cause of the step increase and fix potential problems so there is a potential safety benefit performing the work quickly and eliminating these concerns.

An exigent TS change was determined to be the most appropriate route since it would provide the potential safety benefit of timely fixing of the problem rather than following the normal TS amendment process. Following the normal process would likely result in a TS change no earlier than March, even on an expedited basis. Furthermore, if a step change did occur without applying for an exigent or normal TS change, then questions could arise about the viability of a Notice of Enforcement Discretion or an Emergency TS. It could be argued that the evidence of a prior step change in the vibrations would not allow this to be called an unanticipated non-compliance with TS (NOED criteria). Similarly, an emergency TS change requires that Entergy explain why this emergency situation could not have been avoided. An Exigent TS change has the benefit of providing proper notice while adopting the prudent course of assessing the cause of the step change and making any necessary repairs to increase pump reliability.

The discussion also reviewed the history of the vibration testing since the refueling outage and some of the decision making and work performed. The results of testing are as follows:

Bearing Tested in 2009 (inches per second)	12 -- April*	12- June	3- Sept	24- Nov*
Pump Bearing Outboard Vertical	0.05	0.08	0.1	0.11
Pump Bearing Outboard Horizontal	0.191	0.14	0.1	0.2
Pump Axial	0.071	0.16	0.1	0.6
Pump Bearing Inboard Vertical	0.087	0.072	0.3	0.07
Pump Bearing Inboard Horizontal	0.167	0.15	0.2	0.13

* Tests were performed using digital vibration monitoring

The first column shows the pump vibration measurements following the spring outage when the turbine outboard journal bearing was replaced. The pump inboard vertical bearing is the bearing that showed an increase to 0.3 inches per second during the September test. Note that this indication provided no prior warning that the TS change was needed. The bearing actually shows a decrease in vibration during June and November. No action was taken in September at the time the 0.3 inches per second was detected on the pump inboard vertical pump bearing because the value was less than the operability value and it was a single test point. The step increase of concern was the change from 0.1 to 0.6 inches per second on the pump axial bearing. This placed the pump axial bearing in its alert range (i.e., ≤ 0.32 inches per second). Testing with the analog meter occurred after a routine PM to change the pump oil which would have no effect on the pump vibrations. This test failed at 0.9 inches per second. After the failed test, the oil was changed again and the coupling was evaluated. At that time a pump vendor had been called in and a plan developed to evaluate / fix the pump. This was approximately one day into the AOT and would have taken more than 2 days more since no pre-planned

action was in place. Therefore, when testing was performed with the more accurate digital vibration monitor and the pump passed, an operability evaluation was prepared and the pump was declared operable. This allowed the staging of parts and a pre-planned evolution to correct the vibration issue. The November 24 results in the Table are a single test run following the failed run and represent a step increase from 0.1 to 0.6 inches per second between September and April. Note that the work (i.e., oil change and coupling evaluation) did not cause the pump to turbine misalignment and there were a number of acceptable tests to indicate the pump was properly assembled.

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

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 4, 2010.

Sincerely,

A handwritten signature in black ink, appearing to read "JEP", is written over a faint, larger signature that is mostly illegible.

JEP/sp

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
Mr. Samuel J. Collins, Regional Administrator, NRC Region 1
NRC Resident Inspectors
Mr. Francis J. Murray, Jr., President and CEO, NYSERDA
Mr. Paul Eddy, New York State Dept. of Public Service