



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
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October 28, 2005

MEMORANDUM TO: Luis A. Reyes
Executive Director for Operations

THRU: James E. Dyer, Director */RA/*
Office of Nuclear Reactor Regulation

FROM: Samuel J. Collins */RA/* Marc Dapas signing for
Regional Administrator
Region I

SUBJECT: REQUEST FOR DEVIATION FROM THE REACTOR
OVERSIGHT PROCESS ACTION MATRIX TO PROVIDE
INCREASED NRC OVERSIGHT OF SPECIFIC ISSUES AT
INDIAN POINT ENERGY CENTER

This memorandum requests your approval to deviate from the Reactor Oversight Process (ROP) in order to provide increased NRC oversight of the Indian Point Energy Center (IPEC) and activities of the licensee, Entergy Nuclear Operations, Inc. (Entergy). This action is requested to enable enhanced NRC oversight of Entergy's performance relative to: addressing issues associated with the Unit 2 spent fuel pool, including on-site tritium contamination; and improving reliability and availability of the Alert and Notification System (ANS), including implementation of backup power requirements in the Energy Policy Act of 2005 (the Act).

The NRC already provides a high level of oversight at IPEC relative to other dual-unit reactor sites. Specifically, Unit 2 and Unit 3 have been treated as two single-unit sites for NRC Baseline Inspections. This has necessitated maintaining four resident inspectors at this site (two resident inspectors are assigned to a typical dual-unit site). NRC assessments to date indicate that the unique nature of this site continues to warrant such an approach. This memorandum discusses the need for additional NRC oversight for these two specific issues.

Background

Indian Point Unit 2 spent fuel pool issues: On September 1, 2005, the NRC was informed by Entergy that cracks in a Unit 2 spent fuel pool wall had been discovered during excavation work inside the spent fuel pool building. Entergy also reported that the cracks appeared to be moist with water and that low levels of contamination had been detected. Based on reviews of the structural and radiological significance, the NRC determined that the "as found" conditions did not pose any actual health and safety concern or adverse impact to the environment. On September 20, 2005, Region I initiated a Special Inspection since the nature and extent of the condition were not yet completely known, and in view of the technical complexity of the issue. On October 5, 2005, Entergy reported that some tritium had been identified in an on-site test well and subsequently, the Special Inspection charter was revised to include a review of the on-

site tritium contamination. The Special Inspection is expected to continue for several additional weeks to address the charter requirements and inform NRC's plans for followup activities.

Indian Point Siren Issues: The Indian Point ANS has experienced performance problems in the recent past including: primary and back-up actuation system problems, siren monitoring system failures, and some actual siren failures. These are long standing issues that continue to generate a considerable level of concern within the communities that rely upon the system for alert notification. Additionally, Entergy will be required to modify the ANS in response to the new requirement that was included in the Act.

Deviation Basis

The ROP Action Matrix includes a range of licensee and NRC actions for each column of the Matrix. However, as discussed in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," there may be instances in which the actions prescribed by the Action Matrix may not be sufficient. In the case of IPEC, the staff considers it prudent to apply additional inspection focus to specific areas, even though licensee performance in these areas has not crossed any specific thresholds mandating additional regulatory oversight.

The NRC is closely monitoring Entergy's efforts to evaluate and correct apparent leakage from the Indian Point Unit 2 spent fuel pool. Although low levels of tritium have been found in on-site monitoring locations, we see no hazard to public health and safety, and we expect any off-site radiological releases to be very small (i.e., offsite doses, if any, would be negligible with respect to normal background). Additional NRC oversight of the Unit 2 spent fuel pool and on-site tritium contamination issues is warranted to provide continued NRC attention to licensee implementation of its action plans.

Also, the NRC is on a path to ensure that Entergy improves the reliability and availability of the ANS, and effectively implements backup power requirements of the Act. NRC received letters from Entergy on October 26, 2005, outlining the actions Entergy plans to take to further address these two areas. Staff in the NRC Headquarters and Region I offices will work closely together on these matters and our proposed followup will include above-normal levels of inspection. On November 16, 2005, the NRC staff, the Department of Homeland Security/Federal Emergency Management Agency, and Entergy will have a public meeting to discuss implementation of the Act. At that meeting, Entergy will also provide information regarding its actions to improve the reliability and availability of the existing system. After the meeting, the NRC staff will issue a formal regulatory requirement for backup power to the ANS.

Planned Actions

1. Unit 2 Spent Fuel Pool Leakage and On-Site Tritium Contamination

We request endorsement to use additional NRC inspection resources to provide specialized inspections, on a quarterly basis and as-needed, to evaluate Entergy's performance and progress relative to implementation of its action plan and identified milestones for:

- (a) determining the location of the Unit 2 spent fuel pool leak(s), repairing the affected area(s), and installing a leak detection/monitoring system; and

- (b) characterizing the on-site tritium contamination, determining the source(s) of the contamination, and establishing appropriate monitoring and control.

Further, Region I expects to engage in enhanced coordination with New York State and local government officials regarding on-site and off-site ground water samples and results.

The proposed efforts associated with enhanced monitoring of the Indian Point Unit 2 spent fuel pool issues and on-site tritium contamination are estimated to involve about 0.75 FTE of effort through calendar year 2006. These activities are expected to continue until the NRC is satisfied that the leakage of water from the Unit 2 spent fuel pool has either been stopped or is being effectively monitored and controlled; and on-site tritium contamination has been properly characterized, and is being effectively monitored and controlled.

2. Reliability and Availability of the ANS

We request endorsement to use additional NRC resources to provide specialized inspection of Entergy's performance and progress relative to:

- (a) resolving reliability and availability issues with the current ANS. Additional specialized inspections will be conducted, as necessary, to confirm that ANS problems are effectively corrected; to observe ANS testing; and to review modification and repair activities.
- (b) ensuring the design, installation, and testing of the new ANS conform to NRC regulatory requirements, the approved FEMA design requirements, and the Act.

The proposed efforts associated with enhanced monitoring of the Indian Point ANS are estimated to involve about 0.5 FTE of effort through calendar year 2006. These activities are expected to continue until the NRC is satisfied that the existing ANS demonstrates reliable operation over a period of time; and, subsequently, upon installation, that the new modified ANS demonstrates reliable performance and has been confirmed to comport with NRC requirements to be levied per the Act.

The actions we propose in this memorandum for IPEC represent a customized approach that considers factors beyond each unit's Action Matrix categorization. This approach, which requires your specific approval, is consistent with the underlying concepts of Inspection Manual Chapter 0305. Consistent with the Staff Requirements Memorandum dated May 27, 2004, a copy of this Deviation Memorandum will be provided to the Commission and the deviation will be discussed at the next Agency Action Review Meeting. Pending your approval, the NRC staff will coordinate communications to ensure that the licensee and stakeholders are appropriately informed.

/RA Martin J. Virgilio Acting For 10/31/05/

Approval: _____
Luis A. Reyes

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