

Reactor Oversight Process Enhancement Project

Baseline Inspection Program

Inspection Area – Performance Indicator Verification

Background

Inspection Manual Chapter (IMC) 0308, Attachment 1, “Technical Basis for Performance Indicators,” describes the performance indicators (PIs) and their objectives, thresholds, and bases and Reactor Oversight Process (ROP) cornerstone attributes covered by the PIs. The current revision of the Nuclear Energy Institute (NEI) document, NEI 99-02, “Regulatory Assessment Performance Indicator Guideline,” that has been accepted by the U.S. Nuclear Regulatory Commission (NRC) for use in reporting PI data, describes the PIs, how they are calculated, and how and when to report PIs to NRC. NRC Regulatory Issue Summary (RIS) 2000-08, “Voluntary Submission of Performance Indicator Data,” Revision 1, informs stakeholders that the NRC accepts NEI 99-02 for use in reporting PI data.

Performance Indicator data are voluntarily submitted by licensees to the NRC; however, information provided to the Commission by a licensee shall be complete and accurate in all material respects. The purpose of this procedure is to periodically review PI data to determine their accuracy and completeness.

In September of 2012, Inspection Procedure (IP) 71151, “Performance Indicator Verification,” was updated to relocate guidance from IMC 0612, “Power Reactor Inspection Reports,” on documenting the scope of PI verification inspections, as well as, clarified that an ROP feedback form is not required to initiate the Frequently Asked Question process.

Analysis

The regional, resident and headquarters inspectors and subject matter experts provided feedback on suggested changes to the baseline inspection procedure with intent to enhance flexibility, increase inspection efficiency, and adjust inspection requirements to emphasize increased focus of inspection on the more risk significant activities versus routine activities. Also, special consideration was given to value added inspector field observations that did not result in a finding but where there was an observed safety impact. The inspection procedure owner’s assessment and ROP feedback forms were reviewed as part of the analysis.

Recommendations

Two recommendations were identified:

1. Enhance the capability to evaluate the licensee’s Mitigating System Performance Index (MSPI) reporting. The details behind the licensee’s MSPI values submitted are not currently being inspected in detail. This requires knowledge of the licensee’s probabilistic risk assessment and the MSPI calculations.

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2. Consider adding additional detail to the IP, conduct additional training of inspectors, or utilize the senior reactor analysts (SRA) on some frequency (possibly during SRA site visits for team inspections).