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To: Milano, Patrick *NRR*
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Subject: IP2 question 4

Pat

Attached is a revised writeup for the IP2 question 4. Revisions were made to the two SDP paragraphs based on additional discussions with Steve Long and others in IIPB. Let me know if you need anything else for this, otherwise I think I'm done.

CC: Long, Steven

J/61

4. **Is the revised reactor oversight process faulty with it's focus on a single event? - Isn't it a better indicator of the overall plant performance to include some recent past history? A "good performer" would be much less likely to have two events in a row that had significance. IP2 may be one of the worst "combination" of events ever. It wouldn't be a major effort to look back on previous trip or two at a plant involved in a potentially serious event.**

The new reactor oversight process (ROP) is not focused on a single event, and does use recent plant history as an overall indication of plant performance. Through the use of an "Action Matrix," the assessment process integrates numerous inputs reflecting recent plant history to identify declining licensee performance that warrants increased NRC interaction. The inputs to the "Action Matrix" include both performance indicators (PIs) and inspection findings.

Each of the 18 PIs included in the ROP are based on at least 12 months of data to calculate the indicator, with several of the indicators based on 24 or 36 months of data. This allows recent plant events and issues to be integrated in a meaningful way, with the data applied against risk-informed thresholds to indicate when additional agency action is warranted. For example both the August 1999 and February 2000 reactor trips were counted in the Unplanned Scrams PI, and resulted in this PI crossing the Green/White threshold for the 2nd quarter 2000, indicating the need for increased regulatory oversight above the baseline inspection program.

In addition, each inspection finding is evaluated through the Significance Determination Process (SDP) to characterize the risk significance of the issue. The SDP does require that concurrent performance deficiencies be assessed collectively to determine the total contribution to change in the core damage frequency (Δ CDF). This allows the collective assessment of a combination of different deficiencies that although may have been discovered at different times, occurred concurrently and impacted licensee performance. Although this had always been the intent of the SDP, this guidance was not clearly described until it was included in a recent revision to inspection manual chapter 0609, "Significance Determination Process", dated December 28, 2000, following the evaluation of the February 2000 steam generator tube failure (SGTF). The staff is continuing to evaluate the need for additional changes to the SDP procedure to account for the re-evaluation of findings when new, risk-significant deficiencies are later identified and are found to have existed concurrently with the original issue.

The SDP evaluation of the August 1999 loss of offsite power (LOOP) event determined that this was a Yellow finding, with substantial safety significance. The SDP evaluation of the February 2000 SGTF determined that this was a Red finding, with high safety significance and a significant reduction in safety margin. Subsequent to the SGTF and the identification of degraded steam generator tubes, the staff re-evaluated the conditional core damage probability (CCDP) for both the LOOP and SGTF events to include the potential for either event to have occurred during, and complicated, the other event. The staff concluded that there would not have been a significant change to the CCDP for either event. Including the degraded tubes in the SDP for the LOOP does result in a change in the large early release frequency (Δ LERF) for the August 1999 event, and would have resulted in a Red finding instead of a Yellow. However, this would not have changed the NRC's response or involvement at Indian Point 2 due to the numerous other significant performance issues that were identified and applied to the assessment process.

The assessment process uses the "Action Matrix" to integrate these PI and SDP results and

determine the appropriate level of NRC interaction based on these indications of licensee performance. The assessment process uses a 12-month rolling window of data to allow the accumulation of risk-significant issues, which may be indicative of systemic and pervasive breakdowns in licensee performance. As described in the Indian Point 2 Assessment Follow-up letter dated October 10, 2000, the PI and inspection finding data collected over the previous year indicated that several cornerstones of safety were degraded, principally associated with the August 1999 reactor trip and the February 2000 SGTF. As directed by the "Action Matrix," this resulted in the conduct of several NRC activities above the baseline level of oversight, such as monitoring the licensee's performance improvement plan and the conduct of an independent team inspection to diagnose the breadth and depth of the safety, organizational, and programmatic issues that led to the degraded cornerstones of safety.