

March 18, 2003

MEMORANDUM TO: William D. Travers  
Executive Director for Operations

THRU: Samuel J. Collins, Director **/RA/**  
Office of Nuclear Reactor Regulation

FROM: Hubert J. Miller **/RA**  
Regional Administrator

SUBJECT: DEVIATION TO THE ACTION MATRIX TO CONTINUE HEIGHTENED  
NRC OVERSIGHT OF INDIAN POINT UNIT 2

This memorandum requests your approval to deviate from the Reactor Oversight Process (ROP) actions for Indian Point Unit 2 (IP2) to continue heightened NRC oversight throughout calendar year 2003 (ROP4). This action is needed to continue to closely monitor the licensee's recovery from longstanding underlying problems that led to their designation as a "Multiple Degraded Cornerstone" plant for an extended period of time (2000 - 2002). For Indian Point 2, we have already taken, or considered, actions from both the Multiple Degraded Cornerstone and Single Degraded Cornerstone columns of the Action Matrix. The actions we propose in this memorandum are planned for Indian Point 2 throughout this current assessment period (ROP4) and represent a customized approach that considers a wide range of assessment factors in addition to the plant's Action Matrix categorization. This approach, albeit requiring your specific approval, is consistent with the underlying concept of recent revisions to Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," in which the NRC, through its assessment process, has recognized that longstanding performance issues at a plant may require more tailored, plant-specific, follow-up over an extended period of time.

#### Background

In a May 2000 letter, the NRC Senior Managers concluded that IP2 warranted an Agency Focus designation because of problems in, among other areas, communications and coordination, configuration management/control, engineering support, equipment reliability, corrective action program, and emergency preparedness. Subsequently, in October 2000, after completing an assessment of multiple findings and performance indicators, the NRC concluded that IP2 performance was in the Multiple / Repetitive Degraded Cornerstone column of the NRC's Action Matrix. Per the ROP, this required significant additional oversight, including a 95003 supplemental inspection.

In January and February 2001, a 14-person broad scope supplemental inspection (Inspection Procedure 95003) was conducted at IP2. The purpose of this inspection was to provide an assessment of the underlying causes of the performance problems at IP2. Recognizing that performance problems and weaknesses existed, the NRC assigned the team to independently evaluate whether there was an acceptable margin of safety at IP2. Team members determined the plant was operating safely (i.e., the plant was properly categorized in the Action Matrix, and action was not necessary in accordance with the Unacceptable Performance column).

However, they identified problems similar to those that had been previously identified, particularly in the areas of design control, human and equipment performance, problem identification and resolution, and emergency preparedness.

Following the 95003 inspection, Con Ed made limited progress as they focused on the pending plant sale. In September 2001, Entergy purchased IP2 from ConEd. Entergy performed an in-depth self-assessment in the Fall of 2001, and submitted its Fundamentals Improvement Program (FIP) in early 2002.

IP2 remained in the Multiple Degraded Cornerstone column through calendar year 2001 (ROP2). Additionally, a Yellow finding was opened in the fourth quarter of 2001 due to operator requalification exam failures. In August 2002, the NRC determined that IP2 had made sufficient progress to justify closure of the Red finding associated with the February 2000 steam generator tube failure. This removed the facility from the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix after the end of the third quarter 2002.

The Yellow finding associated with the Fall 2001 licensed operator requalification examination failures was reviewed during the 2002 assessment period. The licensee reconstituted operating crews, and contracted for shift mentors in order to raise operating standards. Following a period of high intensity training for all operating crews, a supplemental (95002) inspection was conducted in April 2002 (reference IR No. 50-247/2002-009). Although the identified root causes for the failures and corrective actions were appropriate and licensed operator performance generally improved, the Yellow finding was held open to facilitate a longer period of time to observe and gain confidence in the adequacy of licensed operator performance through the completion of the requalification cycle, and to observe operator performance subsequent to the completion and restart from the Fall 2002 refuel outage. A follow-up inspection of the requalification program was completed in October 2002 (reference IR 50-247/2002-007), with good results.

#### Deviation Basis

Overall, performance continued to improve at Indian Point 2 and margins of safety have been strengthened. Region I believes that the situation at IP2 continues to warrant close NRC oversight. While substantial progress has been made, Entergy continues to face significant challenges in resolving the longstanding performance issues that led to "Multiple Degraded Cornerstone" designation. Management has continued to focus station efforts on priority work and, as a result, progress has been made in correcting important equipment problems, such as control room deficiencies. However, additional work is needed to reduce overall maintenance and corrective action backlogs which remain relatively high. Continued efforts are also needed to address human performance errors and plant design control legacy issues. The following considerations are the principle contributors to this assessment:

Human performance improvements were noted during this assessment period. For example, operator response to plant events and the handling of plant shutdown and restart from the Fall 2002 outage were generally good. However, we continued to observe instances of licensed and non-licensed operator knowledge deficiencies and performance errors. The problems were observed primarily in the areas of familiarity with Technical Specifications, configuration control, and assessing safety system

operability. The substantive cross-cutting issue in the area of human performance will remain open. Also, in view of this recent performance and since the NRC is currently inspecting aspects of the initial licensed operator training program for potential similar training program weaknesses, we have decided to maintain the Yellow finding open. This will permit us to gain further confidence that corrective actions have been effective and are leading to sustained performance improvements.

Region I considers the comprehensive remedy of the training program weaknesses to be an important element in the continuation of Entergy's successful recovery from performance issues that had been evident over the past several years and had contributed to the Multiple/Repetitive Degraded Cornerstone designation. It is important to note that the operator requalification Yellow finding had an aspect of corrective action weakness tied to it, since there had been a high failure rate on written tests in 2000. Progress was reflected in the fact that all operating crews successfully completed the requalification training cycle in the Fall of 2002. However, observation of upcoming initial licensing examinations and completion of a training inspection scheduled for March is needed to confirm that corrective actions have addressed issues in the training area. Completing these activities with successful results, as well as continued improved operator performance, will permit closure of this finding within the next quarter.

Progress has also been made in problem identification and resolution. The corrective action program has a low threshold for problem identification and items are effectively prioritized. Substantial improvement has been made in the timeliness of evaluating problem reports. However, the total backlog of open problem reports remains relatively high and corrective actions have not been effective in some important instances. For example, weak corrective actions led to the White finding for a degraded control room firewall during this assessment cycle. Entergy has introduced some new process tools and increased management attention to work planning, but improved implementation of work management processes will be important to reducing work order backlogs. The cross-cutting issue in the area of corrective action will remain open.

Our inspections have confirmed that the Security Plan and interim compensatory measures (ICMs) required by the NRC's February 2002 Order are being implemented adequately. Physical barriers, security equipment and response strategies have been strengthened; defensive strategies are appropriate to the current design basis threats; and the total number of security responders at Indian Point is significantly higher than exists at a typical single or dual-unit plant. Although significant security enhancements have been made, a number of concerns have been raised by the security officers. Also instances have occurred involving inattentive security officers, inappropriate handling of weapons by officers, and assignment of inappropriate collateral tasks to security responders. The security officer concerns and performance issues warrant continued Entergy attention, particularly as Entergy works to integrate the Unit 2 and 3 security forces.

Entergy senior management has expedited the site integration efforts following the acquisition of IP2. For example, the engineering organization is undergoing a significant restructuring and consolidation effort. Significant management, and site-wide attention, has been focused on these restructurings and personnel moves. Some benefits have

been realized from the sharing of resources and expertise between units. Although the integration efforts are important to the licensee for long-term stability and efficiency, in the short-term they have served as an additional burden for the site. For example, at the current stage of integration, the use of resources from one unit to support an outage at the other unit has impacted the ability to accomplish non-outage work at the supporting unit. The region plans to closely follow these efforts, focusing on early identification of any significant negative impacts on site improvement progress, should they occur.

The ROP Action Matrix includes a range of licensee and NRC actions for each column of the Matrix. However, as discussed in Manual Chapter 0305, there may be instances in which the actions prescribed by the Action Matrix may not be appropriate. In the case of Indian Point 2, because they were in the Multiple Degraded Cornerstone Column for an extended period of time before moving to the Degraded Cornerstone Column in the latter part of this past assessment cycle, the actions associated with the Degraded Cornerstone Column (or the Regulatory Response Column should IP2 move to this column in ROP4) would not provide the level of oversight needed to appropriately monitor licensee performance. The actions associated with the Regulatory Response Column of the Action Matrix correspond more closely to a plant with an isolated finding, or single area of weakness. Even under the current Degraded Cornerstone Column of the Action Matrix, the NRC has found it necessary to closely follow aspects of the licensee's implementation and effectiveness reviews from their Fundamentals Improvement Program (which was initiated during their time as a plant with Multiple Degraded Cornerstones). Therefore, the region believes that continued heightened oversight, at a level above that of the Regulatory Response Column is appropriate for IP2 throughout calendar year 2003 (ROP4).

#### Planned Actions

As discussed above, the NRC is considering the closure of the yellow finding at the end of the first quarter 2003. This determination, along with improved performance in the cross-cutting areas, would allow Indian Point 2 to move to the regulatory response column of the Action Matrix. The region requests your approval to deviate from the ROP Action Matrix to provide the following oversight of Indian Point 2 throughout calendar year 2003:

- Periodic management meetings/site visits focused on reviewing results of improvement initiatives (such as efforts to reduce corrective action backlogs); these are actions normally associated with the Multiple Degraded Cornerstone Column of the Action Matrix.
- Senior management involvement in meetings, site visits and correspondence. This would include RA involvement in End-of-Cycle meetings and, potentially, other periodic meetings and site visits, consistent with the Degraded Cornerstone Column of the Action Matrix.

The Region also requests your approval to deviate from the ROP baseline inspection program to perform inspection procedure 41500 the week of March 24, 2003, to more closely evaluate the implementation and effectiveness of the initial license operator training program and to follow-up on a number of related training issues.



We also plan to utilize the following actions, in accordance with the ROP and other agency guidance, to continue our heightened oversight of Indian Point 2 through calendar year 2003. These actions, although not requiring approval as a deviation, are included for your information:

- Problem identification and resolution (PI&R) inspection effort above baseline, including: periodic regional assists to resident inspectors on selected emergent issues (e.g., recent repeat problems with EDG load swings and inoperability); baseline inspection performed yearly rather than biennially; and periodic examination of improvement program indicators (e.g., nature and significance of corrective action backlog) through support to RI staff, Tech Oversight Team and management meetings.
- Assessment of the initial licensed operator training program through an evaluation of the collective performance of candidates during the NRC administered initial license examinations in March 2003. Completing this activity, in conjunction with the special program inspection to be performed following the examinations (week of March 24), as well as routine observations of improved operator performance on a daily basis by the resident inspectors, may permit closure of this finding within the next quarter.
- Monitoring the licensee's design basis improvement initiative through management meetings and selected inspection(s) on-site to supplement resident inspector reviews. This effort would include a 95001 supplemental inspection following up on the White fire wall finding.
- Continued heightened oversight of the Indian Point security program, including inspection resources to deal with allegations raised in the security area.
- Management and staff support to assist in coordinating the multi-agency effort in responding to off-site emergency preparedness issues.

*/RA/*

Approval: \_\_\_\_\_  
 William D. Travers 03/18/03

Attachment: IP2 Cornerstone History

DISTRIBUTION w/attach:

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DATE	03/14/03	03/14/03	03/14/03	03/14/03	03/14/03

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## ATTACHMENT A

### INDIAN POINT UNIT 2 PERFORMANCE HISTORY

	CY 2000				CY 2001				CY 2002				CY 2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
IE		White PI (1)	Red (2)	Red	Red	Red	Red	Red	Red	Red	Red					
MS	Yellow (3) White PI (4)	Yellow White PI	Yellow White PI	Yellow White PI	Yellow	Yellow	Yellow	Yellow Yellow (5)	Yellow	Yellow	Yellow Yellow White (6)	Yellow White	Yellow White	White		
BI	Yellow PI (7)															
EP	White (8)	White White (9) White White	White White White													
Matrix Column	N/A	Consider MDC	MDC	MDC	MDC	MDC	MDC	MDC	MDC	MDC	MDC	DC	DC	DC	DC	DC

**NOTES:**

- (1) IE - White PI, associated with high reactor trip frequency.
- (2) IE - Red Finding associated with the February 2000 steam generator tube failure. Closed CY 2002-Q3 (reference ROP-3 Mid-Cycle Letter, dated 8/28/02) based upon substantial progress having been made.
- (3) MS - Yellow Finding associated with August 1999 reactor trip with electrical distribution problems. This finding pre-dated implementation of the ROP, but was categorized via the ROP "Feasibility Review," Attachment 7 to SECY 00-0049. Closed with Red (see note 2).
- (4) MS - White PI associated with EDG unavailability.
- (5) MS - Yellow Finding associated with 2001 licensed operator requalification examination failures. Remains open beyond four quarters to gather additional performance observations and inspection basis to conclude the Training Program root causes have been adequately resolved.
- (6) MS - White Finding associated with degraded Control Building to Turbine Building fire barrier. Projected closure CY2003-Q4, 95001 planned for May 2003.
- (7) BI - Yellow PI associated with steam generator tube failure primary leakage (109 gpm).
- (8) EP - White Finding associated with September 1999 EP Exercise.
- (9) EP - Three White Findings associated with February 2000 steam generator tube failure and previous exercise observations involving ERO augmentation, accountability of onsite personnel, and JNC effectiveness. Closed following 95002 and remedial EP Exercise in June 2001.