



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

May 6, 1998

MEMORANDUM TO: Indian Point 2 Assessment Panel (IP2AP) Members
FROM: John Rogge, IP2AP Panel Leader *JJR 5/6/98.*
SUBJECT: *For* MINUTES FROM IP2AP MEETING 98-01

IP2AP meeting 98-01 began at 3:00 p.m. on May 1, 1998. Rich Barkley opened the meeting by outlining the agenda for the meeting. Rob Temps briefly discussed recent plant events at IP2 and the current schedule for restarting the plant. Rob noted that the current estimate from outage management for restarting Indian Point 2 is early June based on the large amount of work remaining.

Jeff Shackelford of Region IV presented the findings of the recent Independent Safety Assessment (ISA) at Indian Point 2 and the NRC's Evaluation Team (NET) which observed the ISA effort. Jeff noted that the ISA categorized their performance findings as deficiencies and weaknesses, with deficiencies considered the higher importance items. The deficiencies noted by the ISA included the lack of definition of chain of command responsibilities, insufficient control of plant status by operators and identified problems with the surveillance program which may prevent adherence to Technical Specification requirements. Jeff also went over the weaknesses noted by the ISA in the areas of management, operations, surveillance testing, maintenance, technical support, corrective actions and quality assurance.

The NET found that the ISA's findings represented a valid assessment of current performance at IP2 and are consistent with previous NRC assessments and licensee self-assessments. The NET also placed added emphasis on specific ISA findings, particularly in the Operations area, such as the overall control of operational activities, control room command & control, corrective actions, and deficiencies associated with technical specification surveillances. The recommendations of the NET are currently being formalized, but are principally focused on resolving or improving, prior to plant restart: 1) the overall control of operational activities, 2) the overall command and control associated with control room activities, 3) the identified deficiencies with TS surveillances and 4) the timeliness and effectiveness of the licensee's corrective action process. The findings of the ISA and the NET are to be presented to the EDO on Friday, May 8th. The draft slides of the NET briefing to the EDO are attached.

Rich Barkley then discussed the charter for the IP-2 Assessment Panel (IP2AP). It was decided that the draft charter would be revised to include comments from Singh Bajwa and to attach the April 27, 1998, letter to Con Edison to the charter. The existing restart issues checklist document which was prepared to address all of the line items in NRC Manual Chapter 0350 was deleted as an attachment to the letter, but will be maintained by the Assessment Panel for future reference. The IP2AP then elected to meet on a

ITEM # 2

A/2 (14)

weekly basis for the foreseeable future and to carry over the existing meeting items from previous Indian Point 2 Strategy Meetings as part of the IP2AP meeting items.

The IP2AP went over the Restart Plan that was provided as an attachment to the April 27th letter to Con Edison as well as discussed the upcoming meetings and management site visits planned with Con Edison. Bill Hehl discussed his concerns with operator performance at Indian Point 2 based on the findings of the ISA and the NET and suggested that there be supplemental inspections and observations in the near future regarding the control of operational activities and command & control in the control room. The IP2AP agreed with this concern and Rich Barkley committed to discussing with DRS the resources available to assist in conducting such an inspection.

The IP2AP agreed that the next IP2AP meeting would be held on the afternoon of May 7th. The meeting adjourned about 4:30 p.m.

Attachments: 1) NET Draft Briefing Slides
 2) IP2AP Meeting Action Items

IP2AP Members & Alternates:

C. Hehl, DRP *
S. Bajwa, NRR *
J. Harold (PM), NRR *
G. Kelly, DRS
L. Privity, DRS (Alternate) *
J. Rogge, DRP *
R. Temps, SRI - Indian Point 2 *
R. Barkley, DRP*

* Participating IP2AP Member



NRC EVALUATION TEAM BRIEFING OF INDIAN POINT 2 INDEPENDENT SAFETY ASSESSMENT

Randy Blough
Director, Division of Nuclear Materials Safety
Region I

Jeff Shackelford
Senior Reactor Analyst
Region IV

Friday, May 8, 1998

INDEPENDENT SAFETY ASSESSMENT/NRC EVALUATION TEAM (ISA/NET) PROCESS

ConEd Chartered an ISA in lieu of an NRC OSTI

Independent team of industry experts

Significant plant management and operational experience

NRC Evaluation Team

Experience drawn from all NRC Regional offices and NRR

ISA/NET Methodology

The ISA evaluated IP2 via a methodology patterned after the NRC OSTI

The NET reviewed the ISA qualifications, charter, plan and also:

performed a historical review of IP2 performance

conducted oversight of the ISA's onsite activities and deliberation efforts

performed reviews of the ISA's draft and final report

performed limited independent inspection activities

INDEPENDENT SAFETY ASSESSMENT/NRC EVALUATION TEAM (ISA/NET) PROCESS (continued)

Overall Conclusions Regarding the ISA/NET Process

The ISA findings represent a valid assessment of licensee performance which is consistent with previous Agency assessments as well as prior licensee self-assessment activities. (See attached Performance Assessment Matrix)

The ISA/NET process was a success and provided the NRC with the opportunity to obtain valuable insights into licensee performance while also conserving NRC resources.

The ISA/NET process provides ancillary benefits in that the ISA's charter can be broader than what would normally be afforded a similar team composed of NRC personnel. This can provide additional insights into licensee management areas which are not normally achieved via normal NRC assessment methods.

(An NET lessons-learned document is in development)

INDEPENDENT SAFETY ASSESSMENT TEAM FINDINGS

MANAGEMENT	
Management Structure	DEFICIENCY: The chain of command responsibilities for the station are not defined.
Corporate Culture	IP2 Culture is "Isolationist". Industry successes are not considered in solving station problems.
Expectations and Standards	IP2 senior management has not formally developed and communicated clear standards and expectations.
Leadership	Succession planning and personnel development for station management are not adequate.
Work Management	IP2 lacks an integrated and effective work management process for planning, scheduling and controlling activities.
Safety Oversight	The NFSC (Nuclear Facilities Safety Committee) does not provide effective oversight.
OPERATIONS	
Awareness and Control of Plant Status	DEFICIENCY: Operators maintain insufficient control of plant status.
Conduct of Operations	Control room personnel inconsistently reinforce and promote high standards of conduct in the control room.
Operator Performance on the Simulator	Operator performance does not reflect the industry best practices of teamwork, cross-checking and challenging one another.
System Walkdowns	Overall housekeeping is below industry standards.

**INDEPENDENT SAFETY ASSESSMENT TEAM FINDINGS
(continued)**

SURVEILLANCE TESTING	
Surveillance Testing Program	DEFICIENCY: Surveillance program deficiencies exist which may prevent adherence to the Technical Specifications requirements.
MAINTENANCE	
Industrial Safety	Personnel do not always comply with industrial safety standards. Workers and management do not always correct deviations from unsatisfactory practices.
Outage Scope	The remaining outage scope is not fully understood. An all inclusive schedule is not in place.
TECHNICAL SUPPORT	
Technical Support Efficiency and Effectiveness	Technical Support is inefficient and products are of inconsistent quality.
Configuration Management	Accountability for the design basis is unclear.
CORRECTIVE ACTIONS	
Corrective Actions Process	The corrective actions process is cumbersome and inefficient.
QUALITY ASSURANCE	
Quality Assurance Program	Quality Assurance has not been effective in improving plant performance.

NRC EVALUATION TEAM CONCLUSIONS

The ISA's findings represent a valid assessment of current performance at IP2.

The ISA's findings are consistent with previous NRC assessments and licensee self-assessments.

The NET considers certain of the ISA findings to take on additional importance when viewed in an historical context and in consideration of current plant status. In particular, issues related to the overall control of operational activities, control room command & control, corrective actions, and deficiencies associated with technical specifications warrant immediate improvement.

The ISA's findings, when integrated with other assessment efforts, indicate that there has been a general overall decline in plant performance since 1995. The current performance is indicative of recent past performance and significant improvements are not evident. No well defined, approved and active performance improvement initiative is in place. However, the licensee does have a draft improvement plan which purports to address most of the issues which have been identified. Multiple safety-related equipment failures have been observed since 1995 and continue to occur. Corrective actions programs and processes have not been effective at stemming the problems. Individual equipment failures are addressed, but larger program, process and human performance deficiencies remain. Individual errors and equipment failures are not always mitigated by effective program/process barriers.

NRC EVALUATION TEAM RECOMMENDATIONS

- 1. The NET recommends that the overall control of operational activities be strengthened prior to restart of the unit. Several events during the general time frame of the ISA indicate a need for better control of activities that could impact operational safety. There was a lack of control of the reactor head vent path during modifications. Also, weaknesses in technical support, testing and work quality were evident in diesel generator activities and led to problems that included inoperability of one emergency diesel generator. Several other problems with plant configuration control occurred during the ISA. These events indicate weaknesses across the organization in teamwork, self-checking and cross-checking measures to assure quality work and to maintain multiple barriers against significant performance errors.**
- 2. The NET recommends that the overall command and control associated with control room activities be strengthened prior to restart. Prior Agency findings and enforcement actions related to inadequate procedures and procedural adherence were reiterated during the NET effort. The ISA findings regarding lack of control room decorum, lack of appropriate standards and expectations, and lack of a viable supervisory presence in the control room reinforce the Agency's findings in this area. Additionally, the ISA's findings regarding deficiencies in the overall chain of command at the station reinforce this concept. The licensee should demonstrate firm commitments and tangible improvements in this area prior to power operations.**
- 3. The NET recommends that the ISA findings relative to Technical Specification surveillance deficiencies be completely and positively resolved prior to restart. The licensee had previously identified surveillance deficiencies whereby not all of the applicable safety functions of required equipment were being appropriately tested. This issue was further highlighted by the ISA effort. Additionally, the recent problem with the EDG (slow starting due to wiring error in the field flash circuitry) appears to have some relevance to inadequate or deficient testing of vital safety related equipment.**
- 4. The ISA identified significant weaknesses in the licensee's corrective actions processes. Additionally, the Agency had previously identified weaknesses as well as violations associated with corrective actions issues. Some of these issues were related to significant failures of safety related equipment. In light of these continuing problems associated with inadequate and untimely corrective actions, the NET recommends that the licensee be compelled to formally justify their belief that the corrective actions process at IP2 is adequate to support continued safe operation of the facility.**
- 5. Finally, the NET agrees with the Agency decision to monitor and control the restart of IP2 under the auspices of the NRC's 0350 process.**

List of Attachments

Attachment 1: NET Composition

Attachment 2: ISA Team Composition

Attachment 3: NET Performance Summary Matrix for Indian Point 2

IP2 ASSESSMENT PANEL MEETING ACTIONS

Item	Date	Responsible	Action	Status
1. Electrical Inspection of EQ and bus problems	1/28/98	Nicholson Ruland	Determine the timing and need for electrical inspection to review appropriateness of licensee corrective action.	Completed EQ issue- closed after initial review. DRS (Bhatia) looked into the instrument bus verification effort in April 1998; effort looked good, but Con Ed had a number of significant findings that may involve enforcement issues
2. Operability Issues/extent of Condition - Raise TS - I&C Troubleshooting - Drawings	1/28/98	Temps Rogge	Temps - Raised to T. Schmieser Rogge Reinforced Concerns with Paul Kinkle	Completed - licensee responded and is conducting a review using 10 contractors. Completed - I&C troubleshooting issue documented in IR 98-01. Drawing update/management - review done by DRS (Prividy) in March 1998 - More review required since Con Edison had not made much progress.
3. Move Meeting for AE	1/28/98	Rogge Hehl	Discuss with Bram the 2/10, 2/12 and 2/20	Completed - Set 2/12 as AE and 2/20 for performance meeting (later moved to 3/19)
4. Sump Expert to site	1/28/98	Nicholson Kelly Harold	Get NRR HQ Expert to IP for independent assessment.	Completed - 2/11 by Rob Elliot of NRR
5. AE Team Sense	1/28/98	Rogge	Arrange call with AE team	Completed - 1/29/98
6. Consider need for operations inspection.	1/28/98	Nicholson	Consider the need for doing an assessment of operations interface with engineering and maintenance.	Completed in a limited scope by the residents and Frank Arner in 3/98

IP2 ASSESSMENT PANEL MEETING ACTIONS				
Item	Date	Responsible	Action	Status
7. Obtain SIP	1/28/98	Rogge	Obtain a SIP for review because the licensee has referenced it in response letters.	Not Complete/Idea abandoned - contacted C. Jackson and learned that SIP is not in useable form. Licensee is struggling themselves to present items and is currently revising the SIP extensively. Also, providing the SIP on the docket poses other problems.
8. Redirect Resources to Examine No. 1 and No. 6 above	2/5/98	Nicholson	Have Frank Arner perform.	Completed - 2/98
9. Cultural Survey	2/5/98	Rogge	Close File based on performance meeting.	Completed - 2/98
10. AE Debrief	2/5/98	Rogge	Arrange for Regional Debriefing	Completed - 2/11/98
11. OSTI Scope/NRC Oversight	2/5/98	Rogge/ Blough	1) Coordinate with Licensee on timing/scope of NRC oversight 2) Resolve acceptability of Con Ed OSTI scope	Completed - 3/98
12. Contact Ken Perkins to discuss Oversight	2/5/98	Rogge/ Blough	Obtain Clinton ISA and Discuss Oversight of that review	Completed - 2/28/98

IP2 ASSESSMENT PANEL MEETING ACTIONS				
Item	Date	Responsible	Action	Status
13. Restructure the DRS Engr. Insp. to focus on Issues Requested by DRP	3/28/98	Barkley	Barkley to resolve schedule and list of inspection items with DRS management	Completed - 3/3/98 See 3/3 memo issued by Barkley to Wiggins
14. Feedback Comments on the ISA to Con Ed	2/28/98	Blough/Hehl	Call Con Edison with feedback on OSTI charter/composition	Completed - 3/3/98
15. Staff OSTI oversight effort	3/3/98	Blough	Blough (with support from DRP and other Regions) to staff an OSTI oversight effort	Completed - 3/98 (ISA eliminated the need for the OSTI; however, an NET was established to oversee the OSTI)
16. Issue CAL	3/12/98	Rogge	Issue CAL following the 3/19 Perf. Meeting	Completed - 3/26/98
17. Arrange for site visit by Hugh Thompson/Sam Collins	3/12/98	Rogge (Assistance from Harold & McCabe)	Arrange for a site visit by Hugh Thompson and Sam Collins; prepare briefing materials	Hugh Thompson/Sam Collins joint visit scheduled for 5/18 (Bram will be out in the morning to attend the Annual Shareholders Meeting) Need to prepare briefing materials
18. Arrange for a pre-SALP / pre-SMM visit by Hub/Hehl/Rogge/Nicholson/Bajwa	3/31/98	Rogge	Arrange for a pre-SALP/Pre-SMM visit; prepare briefing materials for visit	Date set for May 27 SALP end date will likely slip from 6/27/98 to 8/15/98

IP2 ASSESSMENT PANEL MEETING ACTIONS				
Item	Date	Responsible	Action	Status
19. Arrange with DRS for an inspection/ observation of operator performance in the control room	5/1/98	Barkley	Barkley to discuss with DRS (Conte) the resources available to conduct an inspection/ observation of operator performance in the control room based on the operator performance weaknesses noted by the ISA and the NET	Barkley contacted OLHP on 5/5; Conte to evaluate the resources available for such an effort and the timeframe when he could best support the effort
20. Issue IP2AP charter	5/1/98	Barkley	Revise charter per the direction of the IP2AP and issue	The revised charter is currently with NRR for their review. (Status as of 5/5/98)

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