

February 3, 2003

Mr. Fred Dacimo
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Units 1 & 2
295 Broadway, Suite 1
Post Office Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT 2 - NRC PROBLEM IDENTIFICATION & RESOLUTION
INSPECTION REPORT 50-247/03-002

Dear Mr. Dacimo:

On December 20, 2002, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Indian Point 2 Nuclear Power Plant. The enclosed report presents the results of that inspection, which were discussed with you and members of your staff on December 20, 2002.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The inspectors concluded that, within the scope of the items reviewed, overall, issues were adequately identified, evaluated in sufficient detail, and corrected. Senior management continued to provide reasonable oversight and emphasis on accountability for corrective action program performance. Notwithstanding, the team observed instances of inconsistent performance in the area of corrective actions, and concluded that your continued efforts to strengthen overall performance are appropriate.

Two findings of very low safety significance (Green) were identified and are discussed in detail in the enclosed report. The first finding involved a failure to initiate a condition report to document problems encountered in the replacement of a nonsafety related steam generator level controller. The second finding, also associated with level controller replacements, concerned inadequate corrective actions to prevent transients in main feedwater flow and steam generator level.

Mr. Fred Dacimo

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Sincerely,

/RA/

David C. Lew, Chief
Performance Evaluation Branch
Division of Reactor Safety

Docket No. 50-247
License No. DPR-26

Enclosure: Inspection Report 50-247/03-002
w/Attachment: Supplemental Information

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Mr. Fred Dacimo

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No. 50-247

License No. DPR-26

Report No. 50-247/03-002

Licensee: Entergy Nuclear Operations, Inc.

Facility: Indian Point 2 Nuclear Power Plant

Location: Buchanan, New York 10511

Dates: December 9 - 20, 2002

Inspectors: M. Gray, Senior Reactor Inspector
L. Cheung, Senior Reactor Inspector
T. Hipschman, Reactor Inspector

Approved by: D. Lew, Chief
Performance Evaluation Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000247/2003-002; 12/9/2002 - 12/20/2002; Indian Point 2 Nuclear Power Plant; Baseline Inspection of the Identification and Resolution of Problems.

The inspection was conducted by three regional inspectors from the Division of Reactor Safety. Two findings of very low safety significance (Green) were identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Identification and Resolution of Problems

The inspectors concluded that, within the scope of the issues reviewed, overall, Indian Point 2 (IP2) personnel were identifying issues at a threshold suitable to recognize conditions adverse to quality and help ensure reliable equipment operation. Although station backlogs (corrective actions, maintenance and engineering items) remained relatively high, the inspectors observed that senior management continued to provide reasonable oversight and emphasis on accountability for corrective action program performance. Corrective action process condition reports adequately characterized and bounded the scope of the problems, and correctly assessed equipment operability. Nevertheless, the team identified instances regarding steam generator level controller replacement problems and a cable tunnel groundwater leak where problems were not identified and not entered into the corrective action process.

IP2 personnel usually evaluated problems to a level of detail appropriate to its technical complexity and risk significance. Problems were adequately prioritized for resolution considering the potential safety significance of the issues and their probability for recurrence. However, in some instances (emergency diesel generator wiring termination and breaker setpoint database), the inspectors identified evaluations where the problems were not completely addressed.

Corrective actions generally addressed the problems and encompassed the scope of the issues. Based on the issues reviewed, the inspectors found corrective actions were scheduled and completed commensurate with the risk significance of the issues. Formal effectiveness reviews were completed, and then reviewed by the Corrective Action Review Board to help ensure the corrective actions were effective in resolving more significant problems. Notwithstanding, corrective actions were not effective to prevent repetitive problems during a steam generator controller replacement modification.

Cornerstone: Initiating Events

- Green. A failure to initiate a condition report to identify problems associated with nonsafety related steam generator level controller replacements on August 13, 2002, which resulted in a steam generator level transient and required operator action to prevent a reactor trip.

This issue is more than minor because the problem could reasonably be viewed as a precursor to a significant event. Further, the controller replacement had an actual impact on feedwater flow and steam generator level control which required operator action to preclude a reactor trip. This issue affects the initiating event cornerstone objective of limiting conditions that affect plant stability. The finding was determined to be of very low safety significance (Green) because, although it affected stability of plant operating parameters, it did not increase the likelihood of a primary or secondary loss of coolant accident (LOCA), did not contribute to a reactor trip and a loss of mitigation equipment functions, and did not increase the likelihood of a fire or internal/external flooding condition.

- Green. A self-revealing finding was identified for ineffective corrective actions to prevent main feedwater flow and steam generator level transients during installation of a modification to replace nonsafety related steam generator system level controllers.

The corrective actions from problems experienced during controller replacements on August 6 were ineffective to ensure that subsequent controllers replaced on August 9, August 13, and October 7, 2002 did not result in similar steam generator level transients and necessitate operator actions to prevent reactor trips. While this and the previous finding both concern problems with steam generator level replacements, the findings are distinct in that the previous finding identifies problems not entered into the corrective action program, while this finding concerns the ineffectiveness of corrective actions for problems that were entered into the corrective action program. This issue is more than minor because the problem could reasonably be viewed as a precursor to a significant event, since the controller replacements had an actual impact on feedwater flow and steam generator level control which required operator action to preclude a reactor trip. This issue affects the initiating event cornerstone objective to limit conditions that challenge plant stability. However, the finding was similarly determined to be of very low safety significance (Green) because, although it affected stability of some plant parameters, it did not increase the likelihood of a primary or secondary LOCA, did not contribute to a reactor trip and a loss of mitigation equipment functions, and did not increase the likelihood of a fire or internal/external flooding condition

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed the Indian Point 2 (IP2) corrective action procedures to ascertain the threshold for identifying problems. These procedures indicated that IP2 personnel initiate condition reports (CRs) to identify problems and enter them into the corrective action process. The inspectors reviewed listings of CRs, initiated since January 2002, and selected the sample listed in the Attachment for review. The sample selection was biased toward problems associated with equipment and processes determined to be risk significant in previous IP2 risk analyses.

The inspectors reviewed these CRs to determine whether the threshold for problem identification was set at a level that would routinely identify conditions adverse to quality and help ensure reliable equipment operation. The inspectors also reviewed the CR problem descriptions to determine whether the scope of the problems was adequately characterized and bounded. Furthermore, the inspectors attended daily operator turnover briefings and management meetings where new CRs and work requests were discussed to observe the problem identification thresholds and the interaction between the corrective action program and work control process. The inspectors also observed whether other processes, outside of the corrective action process, were used to resolve problems.

In addition to CRs, the inspectors reviewed operator logs, corrective and elective maintenance work order lists, temporary modification lists, system health reports, quality assurance audits, and self-assessments to determine whether problems identified in these processes were appropriately considered for entry into the corrective action process. Furthermore, walkdowns of selected plant areas were completed by the inspectors to determine whether visual evidence of equipment problems were being identified and corrected as appropriate by CRs or work orders.

(2) Findings

Based on the scope of the issues reviewed, overall, the inspectors determined that IP2 personnel were identifying issues at a threshold suitable to recognize conditions adverse to quality (such as equipment failures, malfunctions, deficiencies, and deviations) and to help ensure reliable equipment operation. The CR descriptions adequately characterized and bounded the scope of the problems, and correctly assessed equipment operability at the CR initiation stage. The inspectors observed, in daily review meetings, that the corrective action process was the primary system used to track and resolve these problems. The inspectors further observed that senior management continued to provide reasonable oversight and emphasis on accountability for corrective action program performance at these meetings.

In reviewing operator, maintenance, and engineering processes, the inspectors did not find that these processes replaced the corrective action process in resolving problems. This was confirmed in discussions with IP2 personnel. Furthermore, the results of plant walkdowns and review of operator logs supported the conclusion that equipment problems were generally being identified and entered into the corrective action process.

Nevertheless, the inspectors identified examples regarding steam generator level controller replacements and a groundwater leak in the cable tunnel where problems were not identified and entered into the corrective action process. The problems with the steam generator level controller modifications were identified as a Green finding and are discussed below. The problems with a groundwater leak in the cable tunnel, which contains safety-related power cables, involved a ceiling area that was previously repaired. However, it had subsequently cracked, a minor leak had initiated, and a rag had been inserted into the cracked area. IP2 personnel confirmed the issue was not previously identified in a CR or work order, and initiated CR 2002-11536 to address the issue. In assessing the issue, the inspectors concluded that although the area contained safety-related cable trays and this should have been identified as a problem, the observed leak was minor, in the walkway, and did not wet adjacent cable trays.

Steam Generator Level Controller Replacement

Introduction. A Green finding was identified for failure to recognize and correct problems that occurred when a nonsafety related steam generator level controller was replaced on August 13, 2002, that resulted in a steam generator level transient and required operator action to prevent a reactor trip.

Description. In reviewing control room operator logs, the inspectors determined that on August 13, 2002, IP2 personnel installed an engineering modification to replace the 23 steam generator three element flow controller and level controller. However, when the new three element controller was placed in automatic, the 23 main feedwater regulating valve (MFRV) started to close, reducing main feedwater flow and lowering steam generator level. Control room operators responded appropriately to take manual control of the 23 MFRV to restore proper feedwater flow and steam generator level to prevent a reactor trip. Following this condition, IP2 personnel re-installed the original controllers and placed them back in service.

Through discussions with IP2 personnel, the inspectors determined that a CR had not been initiated for the August 13, 2002 problem. Additionally, in reviewing the implementing work orders IP2-02-25774 and IP2-02-25775, the inspectors observed that a handwritten step added to verify the controller switches were in the correct position had not been signed off, even though the previous and subsequent steps were documented as complete. The inspectors concluded that IP2 personnel did not initiate a CR for the unexpected steam generator level transient on August 13, 2002 when the modification was attempted, and subsequently did not identify and evaluate why a step in implementing work orders had not been documented as complete. During the inspection, IP2 personnel initiated CR 2002-11530 to address these issues.

The inspectors further determined this condition had previously occurred on August 6 and August 9, 2002, during attempts to replace the 21 and 23 steam generator three element controllers, respectively. In these previous instances similar transients occurred, requiring operators to take manual action and the original controllers to be placed back in service. IP2 personnel appropriately initiated CRs 2002-07587 and 2002-07651 for these problems. CR 2002-07651 was closed to CR 2002-07587, and the conclusion was reached that the cause was improperly set controller switches due to incorrect information in the modification package. However, the inspectors determined the common evaluation of these two conditions did not address potential differences between them. In this regard, the inspectors observed that while the evaluation concluded the transients were due to incorrectly set controller increase/decrease switches resulting from incorrect information in the modification package, the CR for the August 9, 2002 transient stated the controller switches were in their correct position. The August 9, 2002 transient, and this particular observation, were not identified or addressed in CR 2002-07587.

Instrumentation and Control (I&C) personnel at IP2 indicated to the inspectors that they believed the problem on August 9, 2002 may have been due to an interface issue with the new controllers and the original auto/manual stations, although this position was not supported in Engineering's evaluation in CR 2002-07587. The inspectors determined this potential issue was subsequently addressed in September 2002, when the auto/manual stations were replaced during a plant outage before further controller replacements were completed. The inspectors considered this to be a second instance where a controller problem was not adequately identified and evaluated, because, even though CR 2002-07651 was initiated for the August 9 condition, it was closed out to CR 2002-07587, which did not describe or address the August 9 condition and ensure it was similarly caused by incorrect switch settings.

Analysis. The inspectors concluded IP2 personnel did not adequately utilize their corrective action program to identify process problems with the 23 steam generator controller replacement on August 9 and 13, 2002. This resulted in the steam generator level transients that took place when the new controllers were placed on service. This issue is more than minor because the problem could reasonably be viewed as a precursor to a significant event, since the controller replacements had an actual impact on feedwater flow and steam generator level control which required operator action to preclude a reactor trip.

This issue affects the initiating event cornerstone objective of limiting conditions that challenge plant stability. However, the issue was evaluated using Phase 1 of the At-Power Reactor Safety Initiating Event Cornerstone Significance Determination Process (SDP) and determined to be Green (very low safety significance) because although it affected stability of plant operating parameters, it did not increase the likelihood of a primary or secondary loss of coolant accident (LOCA), did not contribute to a reactor trip and a loss of mitigation equipment functions, and did not increase the likelihood of a fire or internal/external flooding condition.

Enforcement. The inspectors determined that there were no NRC violations associated with this finding because the steam generator controllers are not safety-related. IP2 personnel initiated CR 2002-11530 during the inspection to address this issue.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors reviewed completed CRs to determine if IP2 personnel evaluated problems in sufficient detail to reasonably identify the causes and provide for corrective actions that would be effective in preventing recurrences. The inspectors also determined if IP2 personnel adequately addressed equipment operability in light of the problems described, and whether appropriate interim actions were completed where necessary.

In addition, IP2's evaluations of problems were reviewed to verify that NRC reporting requirements were met, and that the extent of the condition and generic implications were correctly assessed. The consideration of prior similar problems was also reviewed. Furthermore, the inspectors reviewed IP2's prioritization for evaluating problems to determine whether the evaluations were completed on a schedule that properly considered the potential impact on safety-related equipment and overall risk significance to the plant.

(2) Findings

The inspectors concluded that IP2 personnel adequately prioritized problems for resolution by qualitatively considering the potential safety significance of the issues (reactor and/or industrial safety significance) and their probability for recurrence. IP2 prioritized problems for resolution by classifying CRs as Category A, B, C, or D, with Category A assigned high priority. The inspectors observed that operability evaluations of safety-related equipment were appropriately given the highest priority, with operability assessments being made at the CR initiation stage, and confirmed in follow-up evaluations. Initial and subsequent reportability reviews were also found to meet NRC reporting requirements.

The inspectors concluded that IP2 usually evaluated problems to a level of detail appropriate to its technical complexity and risk significance. Category A CRs received a detailed root cause evaluation that identified root and contributing causes of the problem, and proposed corresponding corrective and preventive actions. Additionally, Category A evaluations described the extent of the problems, plant operating and maintenance history, and applicable nuclear industry operating experience. The inspectors observed that Category B CRs received an apparent cause evaluation. The inspectors found these evaluations appropriately addressed the same elements as Category A CR evaluations, but in somewhat less detail. Category C CRs, used for the least significant issues, described the problems and tracked corrective actions to be taken. Category D CRs generally tracked items closed to other CRs or to the work control, design change, or safety analysis change process.

The inspectors observed that all Category A CRs, and most Category B CR problem evaluations, appropriately received additional management oversight and review by the Corrective Action Review Board (CARB). The inspectors concluded the CARB reviews helped ensure the evaluations of more significant issues were technically sound and of adequate scope and depth to resolve the problems and prevent their recurrence.

Notwithstanding these general conclusions, the inspectors identified instances where the problems were not completely addressed within the CR evaluation. These are discussed below in detail. However, the inspectors did not identify additional problems associated with these inadequate evaluations and determined these issues to be minor. They were discussed during the inspection, and IP2 personnel initiated further actions where appropriate.

In November 2002, during a plant refueling outage, IP2 engineering personnel were performing design basis initiative wiring verification activities in the 23 EDG control panel. During these activities a wire in the EDG starting circuit was found disconnected from its terminal. At the time the 23 EDG was out of service. The problem was documented in Category C CR 2002-10178, which, based on EDG surveillance tests, concluded the problem occurred during the outage and reconnected the wire under a work order. The inspectors questioned whether it would have been appropriate to use a Category A or B CR to determine and document the root cause of the event. In follow-up discussions and document reviews, the inspectors confirmed the wire was most likely disconnected as a result of in-progress outage activities that involved engineering personnel wire verification efforts and wire terminal tightness checks by maintenance personnel. To address the extent of condition and prevent recurrence, IP2 personnel attributed the disconnected wire to these in-process activities and credited the tightness checks and EDG testing. However, the inspectors concluded documentation of this information would have been appropriate to provide a basis for treating the disconnected EDG starting circuit wire in a "broke/fix" manner.

The inspectors reviewed CR 2002-07608, which evaluated NRC non-cited violation (NCV) 50-247/02-010-03 regarding IP2's failure to determine the cause of circuit breaker amptector over-current device discrepancies in their setpoint database. The inspectors determined that the CR evaluation, closed in September 2002, only addressed portions of the setpoint control process. In response to the inspector's questions, IP2 personnel initiated CRs 2002-11507 and 2002-11542 to complete the evaluation and address the cause for the incomplete evaluation. The inspectors reviewed setpoint related CRs initiated since the NCV was issued in August 2002 and did not find similar breaker setpoint problems.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed CR corrective actions to determine whether they reasonably addressed the problem causes identified in the evaluations. The inspectors also evaluated whether IP2 personnel planned and completed corrective actions on a schedule commensurate with the risk significance of the issues. The effectiveness of corrective actions was assessed through discussions with responsible IP2 personnel to determine whether the problems had recurred. The inspectors supplemented these discussions with a review of control room logs and work orders to determine whether corrective actions were effective in preventing problems. Additionally, the inspectors evaluated selected effectiveness reviews completed by IP2 personnel to determine if, in regard to significant problems, the corrective actions were appropriately reconsidered after implementation to verify their effectiveness.

(2) Findings

Overall, the inspectors determined that corrective actions generally addressed the identified problems and encompassed the scope of the issues. Based on the issues reviewed, the inspectors found that corrective actions were scheduled and completed commensurate with the risk significance of the issues. Corrective actions for problems of greater significance (Category A and B CRs) generally had shorter schedules than corrective actions for less significant problems. Actions required to support equipment operability were appropriately completed on an expedited schedule and in accordance with technical specification requirements.

The inspectors observed that IP2's corrective action procedures controlled corrective action scheduling and extension approvals, and that these standards were reinforced in daily management review meetings where personnel were held accountable for potential overdue items. Additionally, IP2 management monitored internal corrective action performance indicators against plant goals to effectively control time extensions. Although station backlogs (corrective actions, maintenance and engineering items) remained relatively high, the inspectors observed that senior management continued to provide reasonable oversight and emphasis on accountability for corrective action program performance.

The inspectors found that corrective actions were generally effective for resolving problems. In reviewing CRs, the inspectors determined that formal effectiveness reviews were completed and reviewed by a CARB for all Category A, and most Category B CRs. This helped ensure that significant problems were being resolved. However, as described in the following Green finding, the inspectors did identify an instance where corrective actions were not effective in preventing repetitive problems during a steam generator controller replacement modification.

Ineffective Corrective Action to Prevent Steam Generator Level Transients

Introduction. A Green self-revealing finding was identified for ineffective corrective actions to prevent main feedwater flow and steam generator level transients during installation of a modification to replace steam generator system three element controllers.

Description. The inspectors determined that from August through October 2002, IP2 personnel implemented modification MSAP-2001-00618-FIX to replace the steam generator three element controller and level controller associated with each of the four steam generators. Each three element controller receives inputs from feedwater flow, steam flow, and steam generator water level, and positions the MFRV to maintain proper level in the associated steam generator.

On August 6, 2002, after the 21 steam generator controllers were replaced, a level transient occurred when the associated MFRV began to close when placed in automatic. Control room operators responded appropriately with manual action to restore proper steam generator level to prevent a reactor trip, and the original controller was reinstalled. IP2 personnel initiated CR 2002-07587, and determined that the modification package

contained incorrect configuration instructions in setting the internal controller switches. On August 8, 2002, the 21 steam generator modification was completed satisfactorily.

However, the inspectors concluded the corrective actions were ineffective in preventing subsequent repetitive problems. As described in Section 4OA2(a) of this report, the inspectors determined that on August 9 and 13, 2002, IP2 personnel attempted to install this modification on the 23 steam generator with similar results. The inspectors further determined that on October 7, 2002, IP2 personnel attempted to replace the 22 steam generator three element controller. When the controller was placed in automatic, the MFRV began to open, and feedwater flow and steam generator level increased requiring control room operators to take manual control of the 22 MFRV. Following the transient, I&C personnel identified one mis-positioned controller switch, placed it in its proper configuration, and successfully completed the modification. CR 2002-09037 was also initiated. Its evaluation concluded the mis-positioned switch was due to inadequate work instructions to check switch position immediately prior to installing the controller.

The inspectors concluded the corrective actions from the problems experienced on August 6, 2002 were ineffective to ensure subsequent controllers replaced on August 9, August 13, and October 7, 2002 did not result in steam generator level transients and necessitate operator actions to prevent reactor trips. Additionally, the previous CRs did not address consistency between work instructions and modification instructions, and the adequacy of controller configuration documentation. At the time of the inspection, the steam generator controllers had all been replaced. Also, CR 2002-09037, which addressed the October 7 condition and prior occurrences, was scheduled for CARB review.

Analysis. The steam generator transients on August 9, August 13, and October 7, 2002, demonstrate corrective actions from the August 6, 2002 CR were ineffective to prevent recurrence of the problems. This issue is more than minor because these problems could reasonably be viewed as a precursor to a significant event. Additionally, the controller replacements had an actual impact on feedwater flow and steam generator level control which required operator action to preclude a reactor trip.

This issue affects the initiating event cornerstone objective to limit conditions that challenge plant stability. However, the issue was evaluated using Phase 1 of the At-Power Reactor Safety Initiating Event Cornerstone SDP and determined to be Green (very low safety significance) because although it affected the stability of some plant operating parameters, it did not increase the likelihood of a primary or secondary LOCA, did not contribute to a reactor trip and a loss of mitigation equipment functions, and did not increase the likelihood of a fire or internal/external flooding condition.

Enforcement. The inspectors determined that there were no associated NRC violations because the steam generator controllers are not safety-related.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

In discussions with staff members and through observations of management meetings and plant activities during the inspection, the inspectors assessed plant personnel's willingness to raise safety issues to managements attention.

(2) Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On December 20, 2002, the inspectors presented the inspection results to Mr. F. Dacimo and other members of the IP2 staff, who acknowledged the results presented. No proprietary information was identified during the inspection.

ATTACHMENT**SUPPLEMENTAL INFORMATION**KEY POINTS OF CONTACT

| | |
|---------------|--|
| A. Bekkermann | Design Engineer, I&C |
| R. Burroni | I&C Maintenance Manager |
| S. Carpenter | I&C Staff Engineer |
| F. Dacimo | Vice President, Operations |
| G. Dahl | Fire Protection System Engineer |
| G. Hinrichs | Engineering Supervisor, Configuration Management |
| T. Jones | Licensing Engineer |
| J. McCann | Manager, Nuclear Safety and Licensing |
| J. Reynolds | Corrective Action Group |
| A. Sheikh | Manager, I & C and Electrical Engineering |
| P. Rubin | Operations Manager |
| C. Schwarz | General Manager of Plant Operations |
| G. Schwartz | Director of Engineering |
| E. Woody | Project Manager, Maintenance |

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSEDOpened and Closed

| | | |
|------------------|-----|---|
| 50-247/03-002-01 | FIN | Failure to identify problems that occurred when a nonsafety related steam generator level controller was replaced on August 13, 2002, that resulted in a steam generator level transient and necessitated operator action to prevent a reactor trip. (Section 4OA2.a) |
| 50-247/03-002-02 | FIN | Corrective actions were not effective to prevent repetitive main feedwater flow and steam generator level transients during installation of a modification to replace steam generator system three element controllers. (Section 4OA2.c) |

LIST OF DOCUMENTS REVIEWEDProcedures

| | |
|--------------|---|
| AOI 27.1.3 | Loss of 13.8 KV Power, Revision 4 |
| SAO 703 | Fire Protection Impairment Criteria and Surveillance, Revision 11 |
| ENN-LI-102 | Corrective Action Process, Revision 2 |
| SE-SQ-12.317 | Equipment Operability Assessment, Revision 3 |

| | |
|--------------|---|
| SE-SQ-12.108 | Maintenance Rule Performance Criteria/Goal Development and Evaluation, Revision 3 |
| CAG-20.200 | Corrective Action Review Board, Revision 11 |
| CAG-20.101 | Category B Quality Review, Revision 8 |
| ENN-WM-100 | Work Request Generation, Screening, and Classification, Revision 1 |

Condition Reports

| | | | |
|------------|------------|------------|------------|
| 1998-00118 | 2002-04238 | 2002-07608 | 2002-09702 |
| 1998-08932 | 2002-04309 | 2002-07627 | 2002-09868 |
| 1999-07698 | 2002-04440 | 2002-07651 | 2002-09933 |
| 2000-02058 | 2002-04947 | 2002-07671 | 2002-10178 |
| 2000-10678 | 2002-04950 | 2002-07832 | 2002-10451 |
| 2001-00327 | 2002-05115 | 2002-08028 | 2002-10518 |
| 2001-08382 | 2002-05120 | 2002-08324 | 2002-10552 |
| 2001-13022 | 2002-05236 | 2002-08782 | 2002-10850 |
| 2002-00005 | 2002-05560 | 2002-08906 | 2002-10983 |
| 2002-00073 | 2002-06052 | 2002-08989 | 2002-11013 |
| 2002-00326 | 2002-06211 | 2002-09037 | 2002-11362 |
| 2002-01231 | 2002-06608 | 2002-09083 | 2002-11366 |
| 2002-01853 | 2002-06803 | 2002-09111 | 2002-11507 |
| 2002-01902 | 2002-06916 | 2002-09142 | 2002-11530 |
| 2002-01985 | 2002-07097 | 2002-09583 | 2002-11536 |
| 2002-03245 | 2002-07157 | 2002-09642 | 2002-11542 |
| 2002-03738 | 2002-07423 | 2002-09689 | |
| 2002-03740 | 2002-07587 | | |

| | |
|------------|--|
| 2002-04180 | (NCV 2002-03-01) |
| 2002-05115 | (Finding in NRC Inspection Report 247/2002-04) |
| 2002-06823 | (NCV 2002-010-03) |
| 2002-07608 | (NCV 2002-010-003) |

Work Orders

| | | | |
|--------------|--------------|--------------|--------------|
| IP2-99-08397 | IP2-02-40880 | IP2-02-02252 | IP2-02-51793 |
| IP2-99-11908 | IP2-02-50951 | IP2-02-02253 | IP2-02-54001 |
| IP2-00-14808 | IP2-02-25728 | IP2-02-03565 | IP2-02-60076 |
| IP2-01-22494 | IP2-02-00446 | IP2-02-26004 | |
| IP2-01-23842 | IP2-02-00725 | IP2-02-26005 | |

Miscellaneous

Temporary Modification 2002-044, May 19, 2002
 IP2 Modification Self-Assessment Associated with 2R15, January 15, 2002
 Safety Injection System Health Reports, 2nd and 3rd Quarter 2002
 Reactor Protection System Health Reports, 2nd and 3rd Quarter 2002
 Surveillance Test PC-R 7-1, completed 11/19/02
 Surveillance Test PT-Q29C, completed 11/23/02
 Nuclear Quality Assurance Assessment Report 02-AR-17-MA
 Self-Assessment of Effectiveness Reviews for SL-1 Condition Reports 2000-2002, May 28, 2002

Self-Assessment of SL2 Condition Report Effectiveness and SL2 and SL3 Closure Practices, May 20, 2002
 Independent Quality Review of SL2 and SL3 Condition Report Responses, S. Zulla and M. Albright, May 20, 2002
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 MSAP-2001-00618-FIX

LIST OF ACRONYMS

| | |
|------|------------------------------------|
| CARB | Corrective Action Review Board |
| CFR | Code of Federal Regulations |
| CR | Condition Report |
| EDG | Emergency Diesel Generator |
| IMC | Inspection Manual Chapter |
| LOCA | Loss of Coolant Accident |
| MFRV | Main Feedwater Regulating Valve |
| NCV | Non-Cited Violation |
| SDP | Significance Determination Process |