

July 28, 2000

Mr. Oliver D. Kingsley
President, Nuclear Generation Group
Commonwealth Edison Company
ATTN: Regulatory Services
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: QUAD CITIES INSPECTION REPORT 50-254/2000008; 50-265/2000008

Dear Mr. Kingsley:

On June 30, 2000, the NRC completed the baseline problem identification and resolution inspection of your Quad Cities Nuclear Generating Plant, Units 1 and 2. The results of this inspection were discussed with Mr. J. P. Dimmette, Jr., and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to identification and resolution of problems and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observation of activities, and interviews with personnel.

Based on the results of the inspection, the inspectors concluded that, in general, the corrective action program was fully functional and typically identified and corrected problems. In some cases, however, issues had been identified at Quad Cities, but the corrective actions to address the issues had not been vigorously implemented. One violation of NRC requirements was identified involving American Society of Mechanical Engineers (ASME) Code work package reviews. This issue was determined to have very low safety significance (GREEN). The violation is being treated as a Non-Cited Violation (NCV), consistent with Section VIA.1 of the Enforcement Policy, and is described in the inspection report. If you contest the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-001; and the NRC Resident Inspector at the Quad Cities facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room **or** from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning the inspection.

Sincerely,

/RA/

Mark Ring, Chief
Reactor Projects Branch 1

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30

Enclosure: Inspection Report 50-254/2000008;
50-265/2000008

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REGION III

Docket Nos:	50-254; 50-265
License Nos:	DPR-29; DPR-30
Report Nos:	50-254/2000008; 50-265/2000008
Licensee:	Commonwealth Edison Company
Facility:	Quad Cities Nuclear Generating Station Units 1 and 2
Location	22710 206 th Avenue North Cordova, IL 61242
Inspection Dates:	June 19 through June 30, 2000
Inspectors:	R. M. Lerch, Lead Inspector K. Green-Bates, Reactor Engineer R. K. Walton, Resident Inspector
Approved by:	Mark Ring, Chief Reactor Projects Branch 1

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety Radiation Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Safeguards

- Occupational
- Public
- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

SUMMARY OF FINDINGS

IR 05000254-00-08, IR 05000265-00-08, on 6/19-6/30/00; Commonwealth Edison; Quad Cities Nuclear Plant; Units 1 and 2; Identification and Resolution of Problems.

The report covers a 2-week inspection by two region-based inspectors and one resident inspector. This was an announced inspection to review the effectiveness of the corrective action process which included the methods used for identification, cause investigation and correction of quality related problems. The inspectors used inspection procedure IP 71152, "Identification and Resolution of Problems," to conduct the inspection. The inspection identified one green issue which was considered a Non-Cited Violation. The significance of issues is indicated by their color (green, white, yellow, red) and was determined by the Significance Determination Process.

Cornerstone: Barrier Integrity

GREEN. The inspectors identified a failure of the corrective action program where ASME Code Class 1, 2 and 3 Replacement and Repair program requirements for work package reviews were not met. On four occasions the licensee did not realize that the Code work packages were not meeting 10 CFR 50.55a ASME Code requirements. In each case, corrective actions were not taken to correct the situation. Failure to promptly identify and correct the failure to meet ASME code requirements for work packages was considered a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI.

The safety significance of this issue was considered very low based on the absence of adverse consequences and the fact that no technical problems were identified.
(40A2.4(2))

Miscellaneous

NO COLOR. The corrective action program was fully functional and typically identified and corrected conditions adverse to quality. In general, station personnel effectively identified and entered problems into the corrective action program using problem identification forms (PIFs). The significance threshold for entering issues into the program appeared appropriate. However, over the past year issues were identified at Quad Cities where the corrective action process was not vigorously implemented to address the issues. In addition, the licensee's corrective action process had lost over two items a month since January 2000. Although none of these lost items were considered safety significant, and thousands of other action items were opened and closed in that time frame, this represented a weakness in the licensee's program.

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

.1 Corrective Action Program Review

a. Inspection Scope

The inspectors conducted a review of the Quad Cities process for identifying and correcting problems at the plant. The inspectors inspected items associated with the cornerstones of safety. The problem identification program and its effectiveness was evaluated by reviewing issues identified in previous NRC inspections, selected corrective action program documents and records, and discussing the program with licensee personnel, which included management and supervision as well as engineers and craftsmen. The inspection also included a review of applicable procedures and records for indication of corrective action effectiveness. The reviews evaluated the effectiveness of the program at each stage in the process for identifying issues, documenting and evaluating the issues, and assigning appropriate corrective actions and tracking them to completion.

b. Issues and Findings

The inspectors concluded that the corrective action program was fully functional and typically identified and corrected conditions adverse to quality. In general, the inspectors found that station personnel effectively identified and entered problems into the corrective action program using problem identification forms (PIFs). The significance threshold for entering issues into the program appeared appropriate. The PIFs were used for problem identification and were closed after the problem was evaluated and corrective actions were determined. Planned actions were entered into a different computer system called 'Action Tracking' or were closed to other document systems such as engineering requests or work requests. The inspectors were concerned however, that significant issues have been identified at Quad Cities where the corrective action process (PIF, Action Tracking, engineering request, work request) was not vigorously implemented to address the issues. This was evident in the inspection findings and performance indicators over the past year.

The inspectors noted that there was extensive activity by the nuclear oversight organization and considerable self-assessment of the corrective action process by the various station organizations. The inspectors confirmed issues the licensee had identified with implementation of the program, most notably items lost from the tracking process, and with the quality of root causes and the effectiveness of the corrective action review board (CARB) and plant operations review committee (PORC) reviews of root cause determinations. Corrective actions to these issues were in progress and major program changes in the form of a new corrective action program were planned. Licensee personnel stated that implementation of the new corrective action program was

to be completed by July 31, 2000, and that an internal assessment to measure program effectiveness was scheduled to be conducted after the implementation was completed.

There were no risk significant problems identified, however, deficient performance was identified in the various stages of the corrective action process as described in the subsequent sections of this report.

.2 Problem Identification

a. Inspection Scope

Inspectors reviewed inspection reports and corrective action documents to verify that when issues were identified, they were appropriately characterized and entered into the licensee's problem identification and resolution program. The inspectors also reviewed a sample of items in the maintenance work backlog to determine if timeliness of the actions was commensurate with safety, and if there were instances where a combination of low significance issues may collectively result in a more significant concern.

b. Issues and Findings

Several technical issues adverse to quality were identified that had not been documented on problem identification forms in a timely manner. After discussing the issues with the inspectors, the licensee documented these issues on the following problem identification forms:

PIF Q2000-02335	Evaluation of 125 VDC Load Shedding
PIF Q2000-02360	Failure to Revise QCOA 2300-04 Due to Modification
PIF Q2000-02372	HPCI Motor Speed Changer Circuitry Problems
PIF Q2000-02403	Damaged Explosion Bolts for Turbine Building Siding Pressure Relief Panels

.3 Evaluation of Issues

a. Inspection Scope

The inspectors performed an independent assessment of the appropriateness of the assigned significance level (category) for a selected sample of PIFs. The significance level determines the type and timing of the cause evaluation to be performed. Other attributes reviewed by the inspectors included the adequacy of the root cause analyses, or apparent cause evaluations and the corresponding corrective action plans. Evaluations of Non-Cited Violations (NCVs) and potential generic issues, and extent of condition reviews were also assessed.

The inspectors also reviewed the methods used by three separate and independent review committees at Quad Cities to verify the adequacy of compliance with regulatory requirements. These committees were the Event Screening Committee (ESC), Corrective Action Review Board (CARB) and the safety review board Plant Operations Review Committee (PORC). The review included the controlling procedures, selected records of activities, and attendance at selected group meetings. In addition, the

functions, activities, and findings of the three groups were discussed with cognizant licensee personnel, including selected committee members. Meetings for all three committees were attended by inspectors.

b. Issues and Findings

Assessments by the licensee's nuclear oversight organization and the licensee's nuclear safety review board had concluded that root cause determinations were not identifying the root causes of issues and were not meeting management administrative expectations. In addition, the CARB process was not always an effective barrier for this problem. In many cases the unsatisfactory root cause reports had also been approved by the PORC. The inspectors did not identify any additional problems with root causes that had not been identified by the licensee. However, the inspectors agreed with the licensee identified deficiencies, and noted additional NRC identified examples where the evaluation of issues was lacking rigor. Examples of NRC identified issues which lacked sufficient evaluation included failure by the licensee to identify a trend of failures in the reactor level control system. This is in the licensee's corrective action system as PIF Q1999-02886. Another example was the evaluation of unqualified parts installed in the average power range monitor (APRM) system which failed to address the role of the operations department in putting the APRMs back in service. This was discussed in Inspection Report 2000005. The inspectors determined that all plant root cause evaluations since 1999 had been re-reviewed and corrective actions implemented where weaknesses were identified. After review of initial and revised root cause packages, the inspectors found that the corrective action plans were appropriate and there were no risk significant problems identified in this area. With the exception of several minor items identified by the inspectors, the Quad Cities prioritization and evaluation of issues were appropriate and there were no significant findings identified.

.4 Implementation of Corrective Actions

a. Inspection Scope

During review of a sample of corrective action documents, the inspectors assessed the adequacy of corrective actions to properly address the identified cause(s) of the issue or event. The inspectors also verified the implementation of a sample of corrective actions. The samples were selected based on their importance in reducing operational risks.

b. Issues and Findings

(1) Items not tracked

The inspectors identified two corrective actions which were not entered into the licensee's action tracking system. The licensee entered the two items into the system and looked for other missed action items. Two additional action tracking items that had not been properly entered into the action tracking system were identified and corrected. During an extent of condition review requested by the inspectors, the licensee identified three additional PIFS (apparent cause evaluations) that had not had their corrective actions entered into the action tracking system. These were also corrected by the licensee. These deficient conditions were documented on problem identification

forms Q2000-02268 and Q2000-02298. None of the missed action items were of safety significance.

The inspectors reviewed a list of PIFs which identified additional action items not tracked, or improperly closed without completion. Including the examples uncovered by the inspectors, the licensee's corrective action process had lost over two items a month since January 2000. Although none of the action items were considered safety significant, and thousands of other action items were opened and closed in that time frame, this represented a weakness in the licensee's program.

(2) Delinquent ASME code work packages

The inspectors identified a failure of the corrective action program where ASME Code Class 1, 2 and 3 Replacement and Repair program requirements for work package reviews were not met. The inspectors noted that in the following examples, the licensee did not realize that the Code work packages were not meeting 10 CFR 50.55a ASME Code quality review requirements. In each case, corrective actions were not identified or were not taken to correct the situation. The inspectors noted that a lack of knowledge of the ASME Code Repair and Replacement program requirements for safety-related Class 1, 2, and 3 components and piping contributed to the problem.

- (a) On June 18, 1999, approximately 45 maintenance work packages for replacement/repair work on Unit 1 Class 1, 2 and 3 components during previous outages were identified as open because final Maintenance, Quality Control (QC) and Authorized Nuclear Inservice Inspector (ANII) Code reviews had not been completed. Workers informed their supervisor but a PIF was not initiated to investigate and address all delinquent Code package issues.
- (b) On November 29, 1999, a PIF was written to document that the ANII was rejecting 30 percent of the Code work packages submitted for approval. This PIF was narrowly focused in scope and did not address the broader issues of problems with the closure process or potential Code review issues.
- (c) On March 14, 2000, PIF Q2000-1129 was issued which identified that five Unit 1 maintenance work packages, including a 1993 Class 1 work repair/replacement on mainstream isolation valves (MSIVs), had not been closed out. This PIF was closed out by a supervisor and was processed through the ESC review, without addressing the full scope of the problem. The PIF focused on closure of five old work packages and not on the entire closure process through QC and the ANII, nor on the potential Code issue. 10 CFR 50.55a requires licensee compliance with the ASME Code for operation and maintenance. ASME Code XI IWA-6230 1989 Edition states that repairs and replacements on Class 1 and 2 components shall be included in a summary report to the NRC due 90 days following completion of a refuel outage. NIS-2 forms signed by the ANII indicating ASME Code review with approval are also required to be submitted with the 90 day summary.
- (d) On June 16, 2000, work package No. 1992-0064817 for work performed on the Class 1 MSIVs in 1993/1994 was rejected by the ANII. The responsible licensee

staff member did not initiate a PIF during his work week of June 19-23 to verify and address the ANII concerns or to document and address the lack of compliance with 10 CFR 50.55a "ASME Code and Standard". The staff member then left for a four week training class, further delaying already untimely corrective actions.

Though quality and Code reviews had not been performed after work completion, there did not appear to be any technical ASME Code problems with the packages and this error did not result in any safety concerns. The safety significance of this issue was considered very low based on the absence of adverse consequences and the fact that no technical problems were identified, therefore, the issue did not meet the threshold for initial Significance Determination Process (SDP) screening and is considered to be of very low risk. To correct the error, the licensee immediately placed the issue in the corrective action program and reviewed the work packages for Code compliance issues. In addition, the licensee committed to report all delinquent maintenance code work in the next applicable issue of the 90 day Summary Report.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that conditions adverse to quality are promptly identified and corrected. Failure to promptly identify and correct the failure to meet ASME code requirements for work packages on several occasions was a violation of Appendix B. This issue is characterized as a **Non-Cited Violation (NCV 50-254/2000008-01)** in accordance with Section VI.A.1 of the NRC Enforcement Policy. The licensee initiated PIFs Q2000-02389 and Q2000-02393 to address these issues.

.5 Assessment of Safety Conscious Work Environment

a. Inspection Scope

During the conduct of interviews, document reviews and observations of Quad Cities activities, the inspectors looked for evidence that suggested plant employees may be reluctant to raise safety concerns. The type of questions included in Appendix 1 to NRC Inspection Procedure 71152, "Suggested Questions For Use In Discussions With Licensee Individuals Concerning PI&R Issues," were utilized during interviews. The inspectors also discussed with licensee staff the evaluation and resolution of issues that were addressed by the Quad Cities employee concerns program in the past year.

b. Issues and Findings

There were no issues or findings associated with this inspection area.

.6 Effectiveness of Quad Cities Audits and Assessments

a. Inspection Scope

The inspectors reviewed a sample of self-assessments and Nuclear Oversight (NO) audits to evaluate the effectiveness of these activities in assessing licensee performance

and identifying problems. The samples reviewed include various functional areas within the plant and also included departmental assessments of the corrective action program.

b. Issues and Findings

There were no risk significant problems identified in this area. The inspectors observed that the Nuclear Oversight assessments were thorough and contained meaningful findings and recommendations. The scope, depth and quality of departmental self-assessments varied significantly and the inspectors noted that the licensee was taking actions to improve the self-assessment process.

The licensee's overall assessment of the corrective action program was consistent with the inspectors' observations. Areas for improvement have been identified and are being addressed with oversight by station management.

4OA3 Event Follow-up

a. Inspection Scope

The inspectors reviewed Licensee Event Reports (LER) and other items using Inspection Procedure 71153. The inspectors reviewed the licensee's root cause reports and corrective actions for these events.

b. Issues and Findings

(Closed) LER 50-254/99003, Rev 0 and Rev 1: High Pressure Coolant Injection Inoperable due to Manual Closure of Steam Supply Isolation Valve. The licensee could not close the outboard steam supply isolation valve using the control switch. The licensee determined the close contactor on the motor operated valve breaker had failed. The licensee determined that reassembly practices for the close contactor were not consistent. This issue was discussed in Inspection Report 50-254/99023; 50-265/99023. The inspectors reviewed the licensee's corrective actions and found them acceptable. The inspectors considered the risk significance of this issue to be very low (green) from a mitigating system perspective since the system was available for service. The barrier aspects of this issue were also very low since the inboard isolation valve was available for containment isolation, if required. This LER is closed.

(Closed) LER 50-254/00001: Inadvertent Start of the Shared EDG during Automatic Depressurization System Logic Testing. The licensee determined that the cause of this event was ineffective work practice during installation of a signal block. The inspectors reviewed the corrective actions. The risk significance of this issue was minimal since the shared diesel operated properly and was available for operation. This LER is closed.

(Closed) LER 50-265/00001: Safe Shutdown Makeup Pump Injection Valve Inoperable Due to Failure to Properly Stake Valve. The licensee attributed this event to improper staking of the valve in August 1993 due to failure to adhere to vendor manual instructions. The licensee properly restaked the valve and implemented other corrective actions. The inspectors noted that all corrective actions listed in the LER were completed. The risk significance of this event for internal events was determined to be

green (see Inspection Report 50/254-200001; 50/265-200001). However, in Inspection Report 50/254-200005; 50/265-200005, this condition was determined to be white for internal plant fires. The NRC and the licensee continued to discuss the risk significance of this event for internal plant fires. This LER is closed.

(Closed) LER 50-265/00004: Engineered Safety Feature Actuation During Instrument Backfilling due to Inadequate Procedure. The cause of this event was determined to be a deficient procedure since the procedure contained ambiguous information. The inspectors reviewed the corrective actions. The risk significance of this event was minimal (green). Even though Unit 2 lost shutdown cooling capability; this condition was of short duration. Shutdown cooling was restored. This LER is closed.

(Closed) LER 50-265/00005, Rev. 0 and Rev. 1: High Pressure Coolant Injection Failure to Start During Low Pressure Testing. This event was due to maintenance personnel improperly closing out a work package. This issue was discussed in Inspection Report 50/254-200001; 50/265-200001. A revision to the LER included a second reason for the pump being declared inoperable; the discharge side of the pump was inadequately vented. The inspectors verified that the corrective actions listed on the LER have been completed. The risk significance of this event was minimal since it was identified during low pressure startup testing and there was adequate availability of other low pressure injection systems.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. J. P. Dimmette, Jr. and other members of licensee management in an exit meeting on June 30, 2000. Licensee management acknowledged the findings presented and agreed that no proprietary information was provided to the inspectors.

PARTIAL LIST OF PERSONS CONTACTED

Commonwealth Edison Company

G. Barnes, Station Manager
W. Beck, Executive Assistant to the Site Vice President
R. Chrzanowski, Nuclear Oversight, Assessment Manager
J. Dimmette, Jr., Site Vice President
R. Krich, Vice President Regulatory Services
P. O'Neal, Corrective Action Program Analyst
J. Purkis, System Engineering Manager
C. VanDenburg, Engineering Administration Manager

IDNS

B. Ganser, IDNS Resident Inspector

NRC

G. Grant, Director, Division of Reactor Projects, RIII
C. Miller, Senior Resident Inspector
M. Ring, Chief, Projects Branch 1

ITEMS OPENED, CLOSED, AND DISCUSSED

OPENED

50-254/2000008-01;50-265/2000-008-01	NCV	Corrective Action for delinquent ASME code work packages
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CLOSED

50-254/2000008-01;50-265/2000-008-01	NCV	Corrective Action for delinquent ASME code work packages
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50-254/00001	LER	Inadvertent Start of the Shared EDG during Automatic Depressurization System Logic Testing
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50-254/99003, Rev 0 and Rev 1	LER	High Pressure Coolant Injection Inoperable due to Manual Closure of Steam Supply Isolation Valve
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50-265/00001	LER	Safe Shutdown Makeup Pump Injection Valve Inoperable Due to Failure to Properly Stake Valve
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50-265/00004

LER Engineered Safety Feature Actuation During
Instrument Backfilling due to Inadequate
Procedure

50-265/00005, Rev. 0 and Rev. 1

LER High Pressure Coolant Injection Failure to
Start During Low Pressure Testing

DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire documents, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

Corrective Action Program Description

Quad Cities Station Corrective Action Review Board Handbook, Revision 1
CAP-1, "Problem Identification Form Threshold Information Handbook," Revision 3
CAP-2, "Significant Apparent Cause Evaluation (SACE) Handbook," Revision 1
CAP-3, "Root Cause Investigation and Report Handbook," Revision 2
CAP-4, "Trend Investigation and Report Handbook," Revision 0
CAP-5, "Effectiveness Review Handbook," Revision 0
CAP-6, "Coding and Trending Handbook," Revision 1
CAP-8, "Apparent Cause Evaluation Handbook," Revision 1

Procedures

ComEd NO-AA-11 Nuclear Oversight Continuous Assessment Process; Revision 0
NSP-AP-1004, "Corrective Action Program Process," Revision 3
NSP-AP-2004, "Corrective Action Program Process Roles and Responsibilities," Revision 3
NSP-AP-3004, "Corrective Action Program Handbook," Revision 4
NSP-AP-4004, "Corrective Action Program Procedure," Revision 4

Problem Identification Forms (PIFs)

PIF Q1999-01798	Unit 2 HPCI testing with the discharge valve closed
PIF Q1999-02092	Corrective Action Program allowed closure without tracking completion
PIF Q1999-02271	Problem With Scheduling of TS Surveillances
PIF Q1999-02391	EDG Failure to Start During Monthly Surveillance Test
PIF Q1999-02552	Diesel Generator Monthly Load Test
PIF Q1999-02598	Schedule/Parts Coordination Problem on 2B CAM Power Supply
PIF Q1999-02753	SBGT Logic Test puts SBGT in an Undesired State
PIF Q1999-02780	RCIC Quarterly Surveillance Resulted in RCIC Turbine Trip
PIF Q1999-02791	CCST Heaters
PIF Q1999-02803	Non-Cited Violation, IR99012, EDG Failure to Start
PIF Q1999-02935	1-2301-5 Valve
PIF Q1999-02962	Change in Fire Risk not Identified During Planning
PIF Q1999-03072	ANII Concerns on Quality of Work Packages Submitted for Review
PIF Q1999-03337	MCC 16-7, Cubicle B-4 not Wired per Drawings
PIF Q1999-03563	CCST Operability Determination
PIF Q1999-03881	LER Not Triggered for 8/25/99 RCIC Failure; November 15, 1999
PIF Q1999-03953	Failure for RBCCW Pump Seal
PIF Q1999-04264	Maintenance Rule Functional Failure Incorrectly Classified

PIF Q1999-04290	NRC NCV, Two Examples of Inadequate C/As for U-1 & U-2 CREVS; December 15, 1999
PIF Q1999-04303	2-1001-34A Potential Overthrust
PIF Q2000-00241	Broken Stem Nut on 2-2901-8
PIF Q2000-00248	Dresden NON Identified discrepancies with nonconformance process
PIF Q2000-00309	Corrective Action not Generated in Action Tracking AR 14742; January 23, 2000
PIF Q2000-00591	Inadvertent Start of ½ EDG During Installation of Finger Block
PIF Q2000-00613	Apparent Cause for Cause Factors for Reactor High Pressure Scram Modification Wiring Design Discrepancy
PIF Q2000-00624	Procedure Violation Didn't Meet Section XI Repair/Replacement Program During Performance of Work on Feedwater Check Valve 2-0220-58a; February 4, 2000
PIF Q2000-00705	Invalid ESF Caused by Back Filling
PIF Q2000-00742	HPCI Failed to Start
PIF Q2000-00755	Nonconformance attachment "J"s not filled out for ASME nonconformances
PIF Q2000-00829	Unit 2 HPCI Discharge Piping Failure to Vent During QCOS 2300-09
PIF Q2000-00890	NRC, NCV CCST Heaters
PIF Q2000-00892	NRC NCV, Overthrust on Valve 2-1001-34A
PIF Q2000-00925	MO 2-1001-16A Would not Close During Testing
PIF Q2000-01118	Inadequate Trend Investigation Report for Control Room HVAC; March 13, 2000
PIF Q2000-01129	ISI - Five Maintenance Work Packages Not Closed After Extended Periods; March 14, 2000
PIF Q2000-01165	Deficient Root Cause Investigation Report for Control Room HVAC; March 15, 2000
PIF Q2000-01194	UFSAR Table 11.5-1 Discrepancies Associated with DBI Open Items; March 20, 2000
PIF Q2000-01398	Condensate Demin Flow Balance System Degraded
PIF Q2000-01505	1C Circulating Water Pump Lower Bearing Oil Level
PIF Q2000-01531	Missed Surveillances for Unit 2 Fire Dampers and Fire Wrap; April 14, 2000
PIF Q2000-01541	Reoccurring B Core Spray High Discharge Pressure Alarms Occurring
PIF Q2000-01656	½ B CR HVAC Compressor Found with no Oil in Sight Glass
PIF Q2000-01670	Problems with 3 Safety Evaluations During NSRB Reviews
PIF Q2000-01741	U2 Reactor Scram 5/5/2000 During Main Steam High Flow Calibration
PIF Q2000-01801	1D RHRSW Pump Failure
PIF Q2000-01875	Nuclear Oversight Identifies Various Corrective Action Deficiencies
PIF Q2000-01891	B HVAC RCU Tripped During QCOS 5750-02; May 19, 2000
PIF Q2000-01903	Inadequate EOPR for 'B' Control Room HVAC: May 21, 2000
PIF Q2000-01961	Reg Guide 1.97 Required Drywell Pressure Instrumentation Not Calibrated; May 25, 2000
PIF Q2000-02147	U2 Turbine Solenoid Failure Summary; June 13, 2000
PIF Q2000-02235	Incorrect Change to SSMP Operating Procedure Safe Shutdown Make-up Pump System Start-up (QCOP 2900-02); June 19, 2000
PIF Q2000-02262	Root Cause Report 16131 Revision 1 Rejected by PORC; June 20, 2000
PIF Q2000-02268	ACE Assignments not Entered into Action Tracking
PIF Q2000-02298	Assignments for ACEs not Entered into Action Tracking

PIF Q2000-02304 No AT Item Created for Rejection of Root Cause Investigation;
June 24, 2000

PIF Q2000-02311 January 2000 CAP 8 Apparent Cause Evaluation Handbook Changes not
Incorporated into Plant Processes; June 22, 2000

PIF Q2000-02314 Maintenance Root Cause Rejected by CARB

PIF Q2000-02328 Inadequate ACE for PIF Q2000-01961 (Reg Guide 1.97 Instrumentation);
June 29, 2000

PIF Q2000-02341 Valves Calculated Structural & Seismic Limits Potentially Exceeded

PIF Q2000-02355 Process Improvement for PORC - Disposition of Tabled Items Such That
CARB is not Circumvented; June 28, 2000

PIF Q2000-02360 Failure to revise QCOA 2300-04 due to modification

PIF Q2000-02389 No Process For Correcting Code Work Package Concerns; June 29, 2000

PIF Q2000-02393 Class 1 NWR 920064817 Maintenance Package Closure Concerns Noted
During NRC PI&R; June 29, 2000

PIF Q2000-02399 Extent of Condition Review for Post Accident Manual Operator Actions;
June 29, 2000

Root Cause Reports

RCR Unit 2 Increasing Drywell Pressure Due to Relief Valve Lift; May 11, 1999

RCR Jumper installation identified incorrectly, PIF Q1999-02988

RCR Trend Investigation Report, 13457-4 Procedure Adherence Problems; Revision 2

RCR Unit 1 High Pressure Coolant Injection Subsystem Aux Oil Pump Failure; June 27, 2000

RCR Control Room Ventilation System Root Cause 16131; Revision 1

RCR Trend Investigation Report 12771, Adverse Instrumentation Effects on Reactor Building
Ventilation System; Revision 1

RCR CREVs High Air Flow; Revision 0

Misc. Documents

ER-AA-330 Inservice Inspection Plan - Attachment 4; Guidance For Preparing ISI
Post-Outage 90 Day) Summary Report, Revision 0

Nuclear Work Package NWR 920064817; Remove Actuator, Overhaul Valve, Replace Actuator
Springs on the Class 1 MSIV; September 23, 1992 and June 9, 1994

Com Ed Letter CHRON 0314548; Quad Cities Design Engineering Approval for Design Change
Package to Modify ACAD; June 24, 1996

10 CFR 50.59 Safety Evaluation for DCP 9600179; June 29, 1996

ComEd Procedure RS-AA-106; Plant Operations Review Committee; Revision 0

PORC 00-48; Plant Operations Review Committee Meeting Minutes for June 20, 2000

Maintenance Rule Corrective Actions Z5795-04, Control Room HVAC Toxic Gas Analyzer;
November 12, 1999

Assessment and Audits

Q1999-04254 NO Identified Insufficient Scope for SQAC Corrective Action; December 15, 1999

Q2000-01906 NO Identified three Cases of Insufficient Corrective Actions to Prevent Re-work;
May 23, 2000

Q1999-2050 NO Identifies Self Assessment Deficiencies & Weaknesses; June 23, 1999

Q1999-04311 NO Identified CAP Handbook Expectations were not Met; December 10, 1999

Q2000-02292 NO Identified IM Procedure Inadequacy; June 21, 2000
Nuclear Oversight Assessment NOA-04-99-010 Operations; February 5, 1999
Nuclear Oversight Assessment NOA-04-99-038, Maintenance Corrective Actions; July 1, 1999
Nuclear Oversight Assessment NOA-04-99-041, Engineering- Design Control; July 16, 1999
Nuclear Oversight Assessment NOA-04-00-ES01, Inservice Inspection Program;
February 25, 2000
Q2000-01651 Corporate ISI Self Assessment Concern Regarding MT Report for Weld
1013A-10; April 27, 2000
Q2000-02945 Corporate Self Assessment Containment ISI GV Walkdown Issue;
June 13, 2000
Q2000-02945 Corporate Self Assessment Containment ISI Issues; June 7, 2000
Focus Area Self-Assessment EP 27-99-00-77 In-Service Inspection Activities Program NRC
Readiness Evaluation; January 21, 2000
Focus Area Self Assessment ISI and CISI Programs (Draft); Revision 0
Maintenance Department Focus Area Self Assessment; May 2000
Quad Cities Engineering Quality Review Activities for January & February 2000 Combined
Report; March 20, 2000

LIST OF ACRONYMS USED

ATM	Action Tracking Management
CARB	Corrective Action Review Board
EDG	Emergency Diesel Generator
ESC	Event Screening Committee
GE	General Electric
HCU	Hydraulic Control Unit
LER	Licensee Event Report
MOV	Motor Operated Valves
NCV	Non-cited Violation
NSRB	Nuclear Safety Review Board
NTS	Nuclear Tracking System
PORC	Plant Operations Review Committee
PIF	Problem Identification Form
SIL	Service Information Letter