July 17, 2003

Mr. John L. Skolds, President
Exelon Nuclear
Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2
NRC INTEGRATED INSPECTION REPORT 50-254/03-05; 50-265/03-05

Dear Mr. Skolds:

On June 30, 2003, the U. S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Quad Cities Nuclear Power Station, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on July 8, 2003, with Mr. Tulon and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to 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.

Based on the results of this inspection, there were two NRC-identified findings of very low safety significance which involved violations of NRC requirements. However, because these violations were non-willful and because they were entered into your corrective action program, the NRC is treating these issues as Non-Cited Violations in accordance with Section VI.A.1 of the NRC's Enforcement Policy. Additionally, two licensee-identified violations are listed in Section 4OA7 of this report.

If you contest the subject or severity of a Non-Cited Violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, IL 60532-4351; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Quad Cities Nuclear Power Station.

Since the terrorist attacks on September 11, 2001, NRC has issued five Orders and several threat advisories to licensees of commercial power reactors to strengthen licensee capabilities, improve security force readiness, and enhance controls over access authorization. In addition to applicable baseline inspections, the NRC issued Temporary Instruction 2515/148, "Inspection of Nuclear Reactor Safeguards Interim Compensatory Measures," and its subsequent revision,

to audit and inspect licensee implementation of the interim compensatory measures required by order. Phase 1 of TI 2515/148 was completed at all commercial nuclear power plants during calender year 2002 and the remaining inspection activities for Quad Cities are scheduled for completion in 2003. The NRC will continue to monitor overall safeguards and security controls at Quad Cities.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark A. Ring, Chief
Branch 1
Division of Reactor Projects

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

Enclosure: Inspection Report 50-254/03-05; 50-265/03-05
w/Attachment: Supplemental Information

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REGION III

Docket Nos:	50-254; 50-265
License Nos:	DPR-29; DPR-30
Report No:	50-254/03-05; 50-265/03-05
Licensee:	Exelon Nuclear
Facility:	Quad Cities Nuclear Power Station, Units 1 and 2
Location:	22710 206th Avenue North Cordova, IL 61242
Dates:	April 1 through June 30, 2003
Inspectors:	K. Stoedter, Senior Resident Inspector M. Kurth, Resident Inspector R. Telson, Acting Senior Resident Inspector R. Lerch, Project Engineer P. Pelke, Reactor Engineer R. Walton, Reactor Inspector T. Ploski, Senior Emergency Preparedness Inspector D. Funk Jr., Physical Security Inspector J. House, Senior Radiation Specialist D. Nelson, Radiation Specialist R. Ganser, IDNS Inspector
Approved by:	Mark Ring, Chief Branch 1 Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS 1

REPORT DETAILS 3

Summary of Plant Status 3

1. REACTOR SAFETY 3

1R01 Adverse Weather 3
1R04 Equipment Alignment 4
1R05 Fire Protection 4
1R06 Flood Protection 5
1R11 Licensed Operator Requalification 5
1R12 Maintenance Effectiveness 6
1R13 Maintenance Risk and Emergent Work 7
1R14 Non-Routine Evolutions 7
1R15 Operability Evaluations 8
1R16 Operator Workarounds 11
1R19 Post Maintenance Testing 12
1R22 Surveillance Testing 14
1R23 Temporary Modifications 16
1EP4 Emergency Action Level and Emergency Plan Changes 17
1EP6 Drill Evaluation 17

2. RADIATION SAFETY 18

2OS1 Access Control To Radiologically Significant Areas (71121.01) 18
2OS2 As-Low-As-Is-Reasonably-Achievable Planning And Controls (71121.02) 22

3. **SAFEGUARDS** 25

3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles) 25
3PP3 Response to Contingency Events 26

4. OTHER ACTIVITIES (OA) 26

4OA1 Performance Indicator Verification 26
4OA2 Problem Identification and Resolution 27
4OA3 Event Follow-up 28
4OA4 Cross-Cutting Issues 29
4OA6 Meetings 29
4OA7 Licensee-Identified Violations 29

SUPPLEMENTAL INFORMATION 1

KEY POINTS OF CONTACT 1

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED 2

LIST OF DOCUMENTS REVIEWED 3

LIST OF ACRONYMS USED 13

SUMMARY OF FINDINGS

IR 05000254/2003-005, 05000265/2003-005; Exelon Nuclear; on 04/01/03-06/30/03, Quad Cities Nuclear Power Station; Units 1 & 2; Operability Evaluations, Surveillance Testing.

This report covers a 3-month period of baseline resident inspection and announced baseline inspections on security, radiation protection, and emergency preparedness. The inspection was conducted by Region III inspectors and the resident inspectors. Two Green findings associated with two non-cited violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (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.

A. Inspector-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified a Non-Cited Violation of Technical Specification Paragraph 5.4.1 for the licensee's failure to provide a correct procedure for venting emergency core cooling systems to ensure continued operability. As a result, 1B core spray operability was not properly evaluated after a large volume of gas was vented from the system.

This finding was greater than minor because it prevented a proper operability evaluation of the 1B core spray system after operators vented a large volume of gas from the system. It adversely affected the procedure quality attribute of the mitigating systems cornerstone. If left uncorrected, the finding could become a more significant safety concern. The finding was of very low safety significance because the failure to address the as-left operability of the 1B core spray system did not result in the actual loss of the 1B core spray safety function. (Section 1R15)

Green. The inspectors identified a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI for the licensee's failure to implement adequate corrective action for a previously identified emergency diesel generator preconditioning concern. The inadequate corrective action contributed to the preconditioning of two emergency diesel generators and prevented proper preconditioning evaluations.

This finding was greater than minor because it contributed to the preconditioning of two emergency diesel generators and prevented a proper preconditioning evaluation. It adversely affected the procedure quality attribute of the mitigating systems cornerstone. If left uncorrected, the finding could become a more significant safety concern. The finding was of very low safety significance because it did not result in the actual loss of the emergency diesel generator safety function. (Sections 1R19, 1R22)

B. Licensee-Identified Violations

Two violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at full power. On April 6 and May 4 operators performed planned load reductions to approximately 90 percent power to exercise control rods. The unit returned to full power the same day following each occurrence. On May 20 operators performed a planned shutdown in support of outage Q1M16 to replace leaking fuel bundles. The unit was restarted on May 30, synchronized to the grid on May 31, and achieved full power on June 3. On June 13 operators performed a planned load reduction to 15 percent power to repair an electrical ground. Repairs were completed June 14, and the unit was returned to full power on June 15. The unit remained at or near full power for the remainder of the period.

Unit 2 began the inspection period at full power. On April 16 operators manually scrammed the reactor when the 3B power-operated relief valve opened spontaneously and could not be closed. Unplanned, forced outage Q2F57 followed to replace the failed power-operated relief valve. The unit was restarted on April 19, synchronized to the grid on April 20, and achieved full power on April 22. On May 3 operators performed a planned load reduction to 80 percent power to conduct fuel leak testing. The unit returned to full power the same day. On May 8 operators performed a planned shutdown in support of outage Q2F58 to replace the 3B and 3E power-operated relief valves due to indications of leakage. The unit was restarted and synchronized to the grid on May 10, and achieved full power on May 14. On May 24 operators performed a planned load reduction to approximately 60 percent power to conduct fuel leak testing. The unit was returned to full power on May 27. On May 28 operators performed a planned load reduction to 85 percent due to a steam dryer performance problem. On June 10 operators performed a planned shutdown in support of outage Q2F59 to investigate and repair the steam dryer. The unit was restarted on June 28, synchronized to the grid on June 29, and reached approximately 85 percent power on June 30, the end of the reporting period.

1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors walked down the following risk-significant, adverse weather related equipment:

- Main power and unit auxiliary transformers; and
- Station blackout diesel generators.

The inspectors assessed the equipment's ability to operate under extreme outside air temperatures. The inspectors reviewed a number of work orders designated by the licensee that needed to be completed prior to the onset of summer ('summer readiness'). The inspectors also reviewed the status of the licensee's warm weather

action item list and 'summer readiness' work orders to ensure the items completion status.

- Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdowns

a. Inspection Scope

The inspectors performed partial walkdowns of accessible portions of trains of risk-significant mitigating systems equipment during times when the trains were of increased importance due to the redundant trains or other related equipment being unavailable. The inspectors utilized the valve and electric breaker checklists listed at the end of this report to verify that the components were properly positioned and that support systems were lined up as needed. The inspectors also examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors reviewed outstanding work orders and condition reports associated with the trains to verify that those documents did not reveal issues that could affect train function. The inspectors used the information in the appropriate sections of the Updated Final Safety Analysis Report to determine the functional requirements of the systems. The inspectors verified the alignment of the following trains:

- Unit 1 emergency diesel generator;
- Unit 1 reactor core isolation cooling system; and
- Safe shutdown makeup pump system.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors performed a routine walk down of accessible portions of the following risk significance fire zones:

- Fire Area 1.1.1.2, Unit 1 Reactor Building 595' Elevation;
- Fire Area 1.1.1.3, Unit 1 Reactor Building 623' Elevation;
- Fire Area 1.1.1.4, Unit 1 Reactor Building 647' Elevation;
- Fire Area 1.1.1.5, Unit 1 Reactor Building 666' Elevation;
- Fire Area 11.2.2, Unit 1 'B' Residual Heat Removal Room; and
- Fire Area 11.2.4, Unit 1 'A' Residual Heat Removal Room.

The inspectors reviewed the areas for control of transient combustibles and ignition sources; material condition of fire equipment and fire barriers used to prevent fire damage or fire propagation. The inspectors also reviewed the fire barrier impairments log. Minor deficiencies were reported to the licensee and the licensee addressed the corrective actions.

b. Findings

No findings of significance were identified.

1R06 Flood Protection (71111.06)

a. Inspection Scope

During the week of April 14, the inspectors reviewed the Updated Final Safety Analysis Report and related flood analysis documents to identify plant areas susceptible to internal flooding. Based upon the document review, the inspectors chose the reactor building corner room floor drains for additional inspection.

The inspectors walked down each reactor building corner room to assess the material condition of the floor drain, to verify that equipment located below the flood line was adequately sealed with no holes or unsealed penetrations present between flood areas, and that watertight doors between flood areas were in good condition. The reactor building internal flood barrier preventive maintenance schedule and work orders were reviewed to confirm that the licensee was conducting maintenance on the internal flood barriers as required. The inspectors also reviewed selected issues entered into the licensee's corrective action program to verify that identified problems were appropriately corrected.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On June 11, 2003, the inspectors observed an operating crew during simulator evaluation on Scenario 00-33. The scenario involved the failure of nuclear instrumentation while at low power conditions, loss of a condensate pump, loss of control rod drive pump, failure of rapid shutdown (scram) when attempted, and a steam line break. The inspectors evaluated crew performance in the areas of:

- clarity and formality of communications;
- ability to take timely actions in the safe direction;
- prioritization, interpretation, and verification of alarms;
- procedure use;
- control board manipulations;

- oversight and direction from supervisors; and
- group dynamics.

Crew performance in these areas was compared to licensee management expectations and guidelines as presented in the following documents:

- OP-AA-101-111, “Rules and Responsibilities of On-Shift Personnel,” Revision 0;
- OP-AA-103-102, “Watchstanding Practices,” Revision 1;
- OP-AA-103-104, “Reactivity Management Controls,” Revision 1; and
- OP-AA-104-101, “Communications,” Revision 0.

The inspectors verified that the crew completed the tasks listed in the above scenario. The inspectors also compared simulator configurations with actual control board configurations. For any weaknesses identified, the inspectors observed the licensee evaluators to verify that they also noted the issues and discussed them in the critique at the end of the session.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed the licensee’s handling of performance issues and the associated implementation of the Maintenance Rule (10 CFR 50.65) to evaluate maintenance effectiveness for the selected systems. The following systems were selected based on being designated as risk significant under the Maintenance Rule, being in increased monitoring (Maintenance Rule category a(1)) group, or due to an inspector identified issue or problem that potentially impacted system work practices, reliability, or common cause failures:

- Unit 2 Residual Heat Removal System (Z1000); and
- Unit 1 and 2 Standby Liquid Control System (Z1100).

The inspectors’ review included examination of the licensee’s categorization of specific issues, evaluation of the performance criteria, appropriate work practices, identification of common cause errors, extent of condition, and trending of key parameters. Additionally, the inspectors reviewed the licensee’s implementation of the maintenance rule requirements, including a review of scoping, goal setting, performance monitoring, short-term and long-term corrective actions, functional failure determinations associated with the condition reports reviewed, and current equipment performance status.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk and Emergent Work (71111.13)

a. Inspection Scope

The inspectors reviewed the documents listed in the "List of Documents Reviewed" section of this report to determine if the risk associated with the listed activities agreed with the results provided by the licensee's risk assessment tool. In each case, the inspectors conducted walkdowns to ensure that redundant mitigating systems and/or barrier integrity equipment credited by the licensee's risk assessment remained available. When compensatory actions were required, the inspectors conducted plant inspections to validate that the compensatory actions were appropriately implemented. The inspectors also discussed emergent work activities with the shift manager and work week manager to ensure that these additional activities did not change the risk assessment results.

- Unit 1 emergency diesel generator and associated cooling water pump preplanned maintenance, 1B core spray preplanned maintenance, March 31 - April 5;
- Unit 1 high pressure coolant injection preplanned maintenance, Unit 2 "A" core spray system preplanned maintenance, April 21 - 26;
- Unit 1 reactor core isolation cooling system preplanned maintenance, Unit 1 reactor core isolation cooling and core spray room cooler preplanned maintenance, ½ B standby gas treatment system preplanned maintenance, April 28 - May 2;
- Unit 1 refueling and startup, Unit 2 downpower due to moisture carryover concerns, May 26 - 31;
- Unit 1 manual rod control timer emergent repair, June 13; and
- Unit 2 dryer repair and reactor startup, June 23 - 29.

b. Findings

No findings of significance were identified.

1R14 Non-Routine Evolutions (71111.14)

a. Inspection Scope

The inspectors observed operator performance in coping with the Unit 2 spurious opening of the 3B power-operated relief valve at full power conditions on April 16. The power-operated relief valve opening led to a manual reactor scram and subsequent general station emergency plan ALERT declaration. The inspectors reviewed operator logs, plant computer data, and strip charts. Also the inspectors evaluated the operators' response to ensure it was in accordance with station procedures and training. Details of

the event, the licensee's response, and the NRC's evaluation were documented in NRC Special Inspection Report 50-265/03-06.

b. Findings

The findings for this event were documented in NRC Special Inspection Report 50-265/03-06, which was issued on June 13, 2003.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the operability evaluations associated with the following condition reports; evaluated the technical adequacy of the evaluation against the Technical Specification, Updated Final Safety Analysis Report, and other design information; determined whether compensatory measures, if needed, were taken; and determined whether the evaluations were consistent with the requirements of LS-AA-105, "Operability Determination Process," Revision 0.

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance.

- Condition Report 161741, During QCOS 1400-10, surveillance of 1B core spray, operators observed a 12-minute no-flow time that exceeded the 39-second acceptance criteria;
- Condition Report 158145, Unit 2 steam dryer potential degradation, Revision 1, dated May 10, 2003;
- Condition Report 154400, B-loop residual heat removal relief valve (2-1001-22B) opened and failed to reseat until the residual heat removal pump was stopped;
- Condition Report 129737, 2A residual heat removal heat exchanger shows evidence of internal leakage, Revision 1, dated May 16, 2003;
- Condition Report 152960, Localized residual heat removal service water pipe wall thinning downstream of valve 2-1001-5B; and
- Condition Report 161391, New 1B recirculation motor generator set voltage controller does not maintain 70 volts/hertz output.

b. Findings

Evaluation of 1B Core Spray Operability

Introduction: The inspectors identified a Non-Cited Violation of Technical Specification Paragraph 5.4.1 for the licensee's failure to provide a correct procedure for venting emergency core cooling systems to ensure continued operability. As a result, 1B core

spray operability was not properly evaluated after a large volume of gas was vented from the system.

Description: On June 4 operations personnel performed surveillance procedure QCOS 1400-10, "Core Spray Operability Verification." This procedure directed the operators to open a vent valve and verify that water flowed from the valve within 39 seconds. When the operators opened the vent valve, approximately 12 minutes elapsed before water flow was observed. The operators completed the procedure by permitting water to flow for at least two minutes, declaring the 1B core spray system operable, and initiating Condition Report 161741 to ensure engineering personnel evaluated the "*historical* (emphasis added) operability and reportability" of the 1B core spray system.

On June 19 engineering personnel completed a preliminary assessment of the 1B core spray system historical operability. The engineers determined that the large volume of gas rendered the system inoperable for approximately 5 days due to the potential for significant damage if the system was placed in service while the gas was present. Condition Report 164026 was initiated to document the historical inoperability. The current or 'as-left' operability of the 1B core spray was not questioned.

On June 25 the inspectors reviewed Condition Report 164026 and questioned the operators regarding the as-left operability of the 1B core spray system. The operators had not questioned the possibility of damage had the system been operated when the excess gas was present. Following inspector prompting, the licensee evaluated the period the system was believed to have contained excess gas and verified that the system had not been operated or otherwise exposed to conditions that would have caused gas-related damage.

The inspectors determined that QCOS 1400-10 (and other emergency core cooling system surveillance procedures) too narrowly defined the required operator response to the discovery of excess gas in discharge piping. The procedure specifically directed the operators to assess historical operability and reportability upon discovery of excess gas. The inspectors determined that this narrow definition contributed to the licensee's failure to adequately evaluate as-left system operability when required.

Analysis: The failure to have a procedure that adequately ensured continued operability of a safety-related system was more than minor. It affected the procedure quality attribute of the mitigating systems cornerstone used to ensure the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. However, this finding was of very low safety significance (GREEN) since the failure to address the as-left operability of the 1B core spray system did not result in the actual loss of the 1B core spray safety function.

The inspectors also determined that this finding was indicative of a cross-cutting issue related to problem identification and resolution. An incorrect procedure, in concert with potentially deficient training, prevented the operations and engineering staff from appropriately questioning the as-left operability of the 1B core spray system following the discovery of excess gas. The inspectors confirmed, in discussions with several operations shift managers, that the operations crew response in this event was not

anomalous. Other crews could be expected to make the same error for this and related surveillance procedures based on the incorrect guidance and an unquestioning reliance on procedural compliance. As a result, operators may not have questioned this narrow definition of system operability under circumstances in which a loss of as-left safety function existed.

In addition, the inspectors observed that Condition Reports 164026 and 161741 passed through supervisory review, the condition review group, and the management review committee without an effective challenge to the inadequate procedure or the as-left operability determination. This indicated that similar deficiencies in problem identification and resolution extended beyond operations and engineering personnel. The inspectors shared this observation with the licensee. Operations management initiated Condition Report 165132 acknowledging the event as a “near miss” condition that, under different circumstances, would reasonably have been expected to result in a ‘Significance Level 1 or 2' event. The condition report tasked operations and engineering to evaluate the root cause and need to revise all emergency core cooling system venting procedures to more clearly define the requirements that must be met before returning an emergency core cooling system to operability.

Enforcement: Technical Specification 5.4.1 states, in part, that written procedures shall be established, implemented, and maintained covering activities recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Paragraph 4.h of the regulatory guide recommends, in part, written instructions for the venting of boiling water reactor emergency core cooling systems. Paragraph 8.b.(2)(j) recommends, in part, specific implementing procedures for each emergency core cooling system surveillance test. Contrary to this, procedure QCOS 1400-10, “Core Spray Operability Verification,” Revision 13, a surveillance test used to vent a boiling water reactor emergency core cooling system, provided incorrect written guidance for verifying continued operability of an emergency core cooling system following the discovery of excess gas. This violation is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy **(NCV 50-254/03-05-01; 50-265/03-05-01)**. This violation is in the licensee’s corrective action program as Condition Report 165132.

Unit 2 Steam Dryer

In response to May 1 indications of recurring Unit 2 steam dryer degradation, the inspectors reviewed a Unit 2 steam dryer operability evaluation. The operability evaluation had been revised on May 10 to incorporate lessons learned following a July 2002 steam dryer degradation event. The inspectors identified questions that will be addressed in NRC Special Inspection Report 50-265/03-011, documenting a special inspection in response to licensee identification of severe steam dryer degradation on June 12.

B-Loop Residual Heat Removal Relief Valve

The inspectors reviewed the operability evaluation associated with Condition Report 154400 addressing a failure of the B-loop residual heat removal system relief

valve (2-1001-22B) on or about April 17. The relief opened and failed to reseat following the initiation of shutdown cooling after an unplanned manual reactor scram.

The condition self-revealed at 8:23 a.m. when a 2B reactor building floor drain sump high level alarm occurred. Operators discovered approximately one-half inch of water on the floor surrounding the sump and confirmed that both sump pumps had been running for more than 30 minutes. The coolant relief rate subsided when operators secured shutdown cooling. The licensee replaced the failed valve and declared the system operable. The inspectors observed that the condition report did not address the potential that the relief valve actuation may have been triggered by a pressure pulse (water hammer) from excess gas in the system nor did it address follow-up inspection to rule out residual system damage.

The inspectors raised questions regarding the licensee's basis for ruling out excess gas, for the established acceptance criteria for gas in the system, and methods to monitor and manage gas in the residual heat removal system. The licensee was unable to satisfactorily address these questions prior to the conclusion of the inspection period. The inspectors determined that the questions were closely related to Unresolved Item 50-254/01-08-02 that was pending review by regional piping specialists. That unresolved item involved an event (37636 - retracted) in which air (gas) was identified in the high pressure coolant injection system. The additional questions discussed above will be incorporated into **Unresolved Item 50-254/01-08-02.**

1R16 Operator Workarounds (71111.16)

a. Inspection Scope

On May 5 and 6 the inspectors assessed the following two specific operator work-arounds to assess any potential effect on the functionality of the mitigating systems. The inspectors reviewed the technical adequacy of the work-around documentation against the Updated Final Safety Analysis Report and other design information to assess whether the work-around conflicted with any design basis information. Lastly, the inspectors compared the information in abnormal or emergency operating procedures to the work-around information to ensure that the operators maintained the ability to implement important procedures.

- 01-021 OWA, Operators have to Manually Fill the Diesel Fire Pump Day Tanks per QCOP 4100-16 Due to Solenoid Operator Valve Removal For Pressure Locking Concerns

- 02-015 OWA, Mezzanine Area Fire Annunciators Will Activate for Unit 1 and Unit 2 During Fire Diesel Starts Due to Momentary Pressure Reductions in Fire Header Pressure

Also the inspectors reviewed the cumulative effects of operator work-arounds to assess any potential effect on the functionality of mitigating systems. During this review, the inspectors evaluated work-arounds for impact on abnormal or emergency operating procedures.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

For each post maintenance activity selected, the inspectors reviewed the Technical Specifications and Updated Final Safety Analysis Report against the maintenance work package to determine the safety function(s) that may have been affected by the maintenance. Following this review the inspectors verified that the licensee's post maintenance procedure adequately tested the safety function(s) affected by the maintenance, that acceptance criteria were consistent with licensing and design basis information, and that the procedure was properly reviewed and approved. When possible the inspectors observed the post maintenance testing activity and verified that the structure, system, or component operated as expected; test equipment used was within its required range and accuracy; jumpers and lifted leads were appropriately controlled; test results were accurate, complete, and valid; test equipment was removed after testing; and any problems identified during testing were appropriately documented.

- Testing following Unit 1 reactor core isolation cooling rupture disc replacement, May 1;
- Testing following Unit 2 emergency diesel generator maintenance, May 8;
- Testing following Unit 1 'A' train of residual heat removal system maintenance, May 14;
- Testing following Unit 2 reactor core isolation cooling steam isolation valve MO-2-1301-17 maintenance, May 10;
- Testing following troubleshooting of ½ emergency diesel generator start system time delay relay, June 10; and
- Testing following replacement of Unit 1 manual rod control timer, June 13.

b. Findings

The inspectors identified a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI for the licensee's failure to implement adequate corrective action for a previously identified emergency diesel generator preconditioning concern. The inadequate corrective action contributed to the preconditioning of two emergency diesel generators and prevented a proper preconditioning evaluation. This finding is further addressed in Section 1R22.

1R20 Refueling and Outage Activities (71111.20)

a. Inspection Scope

The inspectors observed the licensee's performance during the following outages:

- Unit 2 unplanned, forced outage Q2F57 conducted from April 16 to 19 to address the stuck open 3B power operated relief valve;

- Unit 2 planned outage Q2F58 conducted from May 8 to 10 to replace the 3B and 3E power operated relief valves;

- Unit 1 planned outage Q1M16 conducted from May 19 to 30 to replace suspect leaky fuel assemblies; and

- Unit 2 planned outage Q2F59 conducted from June 10 to 29 to determine the reason for the higher than normal moisture carryover levels and complete the necessary repairs.

The inspectors reviewed the licensee's forced and planned outage schedules, verified equipment alignments, and observed control room and site outage activities. The inspectors verified whether the licensee effectively conducted the shutdowns; managed elements of risk pertaining to reactivity control during and after the shutdowns; and implemented decay heat removal system and electrical power control procedure requirements.

The inspectors performed the following activities daily:

- attended control room operator and outage management turnover meetings to verify that the current shutdown risk status was well understood and communicated;

- performed walkdowns of the main control room to observe the alignment of systems important to shutdown risk;

- performed periodic walkdowns of the turbine and reactor buildings to observe ongoing work activities; and

- reviewed selected issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance.

Additionally, the inspectors observed the following specific activities, as appropriate:

- shutdowns and cooldowns to a cold shutdown condition (MODE 4);
- implementation of abnormal operating procedures to address any abnormal occurrences;
- implementation of emergency operating procedures;
- initiation of the shutdown cooling mode of the residual heat removal system;

- control rod withdrawals to criticality and portions of the plant power ascension;
- surveillance tests throughout the duration of the outages;
- troubleshooting efforts for emergent plant equipment issues;
- reactor vessel disassembly and reassembly; and
- drywell closeouts.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed surveillance testing activities and/or reviewed completed surveillance test packages for the tests listed below:

- QCOS 0201-08, "Reactor Vessel and Class One Piping Leak Test;"
- QCOS 1600-32, "Drywell/Torus Closeout;"
- QCOS 0250-04, "MSIV [Main Steam Isolation Valve] Closure Test;"
- QCOS 0700-23, "Unit 2 Division I Power Operation APRM [Average Power Range Monitor] Functional Test;"
- QCOS 1400-10, "Core Spray Operability Verification;" and
- QCOS 6600-20, "Diesel Generator Endurance and Margin/Full Load Reject/Hot Restart Test.

The inspectors verified that the structures, systems, and components tested were capable of performing their intended safety function by comparing the surveillance procedure acceptance criteria and results to design basis information contained in Technical Specifications, the Updated Final Safety Analysis Report, and licensee procedures. The inspectors verified that the test was performed as written, the test data was complete and met the requirements of the procedure, and the test equipment range and accuracy were consistent with the application by observing the performance of the surveillance test. Following test completion, the inspectors conducted walkdowns of the test areas to verify that the test equipment had been removed and that the system was returned to its normal standby configuration.

b. Findings

Introduction: The inspectors identified a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI for the licensee's failure to implement adequate corrective action for a previously identified emergency diesel generator preconditioning concern. The inadequate corrective action contributed to the preconditioning of two emergency diesel generators and prevented proper preconditioning evaluations.

Description: On June 2, 2003, the inspectors observed a routine surveillance test of the Unit 2 emergency diesel generator. Operators were conducting a timed start test in accordance with QCOS 6600-20, "Diesel Generator Endurance and Margin/Full Load Reject/Hot Restart Test," Revision 32, to partially satisfy Technical Specification

surveillance requirements. Following the test, the licensee initiated Condition Report 161478 to address an adverse condition in that a start time response recorder was not started before starting the emergency diesel generator. The emergency diesel generator was stopped, the recorder properly initiated, the emergency diesel generator promptly restarted, and the testing documented as satisfactorily completed.

The inspectors interviewed the involved operators who indicated that they had initially questioned whether the prompt restart unacceptably preconditioned the emergency diesel generator. However, based on test procedure guidance, they concluded that unacceptable preconditioning had not occurred. The operators did not request an engineering evaluation as would otherwise have been dictated by Operations Standing Order 03-005, "Preconditioning," which required that "Any activities which appear to precondition Technical Specification or American Society of Mechanical Engineers Code equipment prior to testing shall be documented through the engineering request or condition report process so that engineering review of the issue is required."

On June 10, 2003, the inspectors identified that Condition Report 162624 documented a similar event involving the ½ emergency diesel generator. The start time response recorder failed to capture necessary test data during a post-maintenance test. The test followed troubleshooting of the starting air system. During the test the emergency diesel generator was shut down to correct a recorder problem, the emergency diesel generator promptly restarted, the response time recorded, and the testing documented as satisfactorily completed. Again, based on an incorrect procedure and an unquestioning reliance on procedural compliance, the operators did not request an engineering review.

The inspectors determined that the surveillance procedures were incorrect in defining too narrowly those conditions under which an emergency diesel generator could be evaluated for unacceptable preconditioning. The guidance focused exclusively on engine jacket water and circulating lube oil temperatures. A preconditioning evaluation could be triggered only if fluid temperatures exceeded specified values. An emergency diesel generator could be pre-started and/or restarted repeatedly before recording a Technical Specification surveillance requirement timed start response. Such a practice could prime fuel subsystem components and pre-lubricate or otherwise exercise air start or other subsystem components in a manner that might beneficially affect emergency diesel generator starting time response and thus mask an adverse condition.

Inadequate procedure guidance regarding emergency diesel generator preconditioning was brought to the licensee's attention in 2001 with the issuance of Non-Cited Violation 50-254/01-05-04; 50-265/01-05-04, emergency diesel generator timed start test preconditioning. In Condition Report 2001-01007, the licensee acknowledged the focus of the NRC concern that the procedures were inadequate. The corrective actions, however, did not adequately address this specific deficiency and left in place procedures that were inconsistent with NRC Information Notice 97-12 and NRC Inspection Manual Part 9900 Technical Guidance on Preconditioning.

Analysis: This finding is greater than minor because it contributed to the preconditioning of two emergency diesel generators and prevented proper preconditioning evaluations. It adversely affected the procedure quality attribute of the mitigating systems

cornerstone. If left uncorrected, the finding could become a more significant safety concern. The finding was of very low safety significance (GREEN) because it did not result in the actual loss of the emergency diesel generator safety function.

This finding was indicative of a cross-cutting issue related to problem identification and resolution. An incorrect procedure prevented the licensee from appropriately evaluating emergency diesel generator preconditioning concerns. The inspectors confirmed in discussions with operations shift managers that preconditioning concerns were discussed on shift but not forwarded for engineering review. Based on the observed crew response during two similar events and discussions with operations shift managers, the inspectors determined that operations crews could be expected to take the same actions under similar circumstances or possibly under different circumstances in which unacceptable preconditioning had occurred.

In addition, the inspectors observed that Condition Reports 161478 and 162624 passed through supervisory review, the condition review group, and the management review committee without an effective challenge to the inadequate procedure or absence of a preconditioning review. This indicated that similar deficiencies in problem identification and resolution extended beyond operations personnel. The inspectors shared this observation with the licensee.

Enforcement: Part 50, Appendix B, Criterion XVI of 10 CFR states, in part, that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to this, when a condition adverse to quality, an incorrect procedure, was identified in Non-Cited Violation 50-254/01-05-04; 50-265/01-05-04 and in Condition Report 2001-01007, the licensee failed to correct the incorrect procedure. As a consequence, on June 2 and June 10, the inadequate corrective action contributed to the preconditioning of two emergency diesel generators and prevented a proper preconditioning evaluation. The result of the violation was determined to be of very low safety significance (GREEN). This violation of 10 CFR 50, Appendix B, is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy **(NCV 50-254/03-05-02; 50-265/03-05-02)**. This violation is in the licensee's corrective action program as Condition Report 163903.

1R23 Temporary Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed documentation for the following temporary configuration changes:

- Jumper installed to null 1A electro hydraulic control system pressure regulator; and

- Unit 2 isophase bus duct supplemental cooling modification.

The inspectors assessed the acceptability of each temporary configuration change by comparing 10 CFR 50.59 screening and evaluation information against the Updated

Final Safety Analysis Report and Technical Specifications. The comparisons were performed to ensure that the new configurations remained consistent with design basis information. The inspectors performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability, and that operation of the modifications did not impact the operability of any interfacing systems. The inspectors also reviewed condition reports initiated during or following temporary modification installation to ensure that problems encountered during installation were appropriately resolved.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors reviewed Revisions 13 and 14 of Exelon's Standardized Emergency Plan to determine whether changes identified in Revisions 13 and 14 reduced the effectiveness of the licensee's emergency planning for its operating reactor sites within Illinois, pending onsite inspection of the implementation of these changes.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

.1 Site-Based Evolution

a. Inspection Scope

On April 9 inspectors evaluated the licensee's ability to implement the site emergency plan during a training drill and critique overall performance. The drill scenario included a loss of control room annunciators, a loss of a reactor recirculation pump, a loss of the reserve transformer, a large loss of coolant accident, and a failure of the residual heat removal system to initiate. The scenario resulted in an Unusual Event, Alert, Site Area Emergency, and a General Emergency classification. The inspectors evaluated whether the drill evolution was of appropriate scope and was to be included in the performance indicator statistics. The inspectors observed implementation of the emergency operating procedures, event classification, and reporting actions. The inspectors also evaluated whether there were any discrepancies between observed performance and performance indicator reported statistics.

b. Findings

No findings of significance were identified.

.2 Simulator Evaluation

a. Inspection Scope

On June 11 the inspectors evaluated the licensee's ability to implement the emergency plan during a simulator-based drill and critique overall performance. The simulator scenario resulted in an Alert classification due to a partial failure of nuclear instrumentation, a loss of a condensate pump, a loss of a control rod drive pump, a loss of ability to manually scram the reactor, and a steam line break. The inspectors observed implementation of the emergency operating procedures, event classification, and reporting actions.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control To Radiologically Significant Areas (71121.01)

.1 Review and Followup of Licensee Performance Indicators for the Occupational Exposure Cornerstone

a. Inspection Scope

The inspectors reviewed the licensee's records to determine if performance indicators in the occupational radiation safety cornerstone had been identified during the previous four calender quarters and to determine whether or not the conditions surrounding the performance indicators had been evaluated, and identified problems had been entered into the corrective action program for resolution.

b. Findings

No findings of significance were identified.

.2 Plant Walk Downs and Radiation Work Permit Reviews

a. Inspection Scope

The inspectors identified radiologically significant work activities performed during Unit 1 Maintenance Outage 16 (Q1M16) within radiation areas and high radiation areas in the reactor, radwaste, and fuel handling buildings, as well as the Unit 1 drywell. The inspectors reviewed work packages which included associated licensee controls and surveys of these areas to determine if radiological controls including surveys, postings and barricades were acceptable. Those activities included the repair of the Unit 1 reactor head vent, remove and replace selected Unit 1 emergency relief valves and

remove/replace/test the 1B recirculation pump seal. These work areas were walked down and surveyed using an NRC survey meter to verify that the prescribed radiation work permit, procedure, and engineering controls were in place, that licensee surveys and postings were complete and accurate, and that air samplers were properly located.

The inspectors reviewed the radiation work permits and work packages used to access these and other high radiation work areas and identified which work control instructions or control barriers had been specified. Technical Specification high radiation area and locked high radiation area requirements were used as the licensee's standards for the necessary barriers. Electronic dosimeter alarm set points for both integrated dose and dose rate were evaluated for conformity with survey indications and plant policy. Workers were interviewed to verify that they were aware of the actions required when their electronic dosimeter noticeably malfunctions or alarms. The inspectors reviewed the available radiation work permits for airborne radioactivity areas to determine if there was a potential for individual worker internal exposures of >50 mrem CEDE (20 DAC-hrs). Barrier integrity and engineering controls performance such as High Efficiency Particulate Air ventilation system operation were evaluated. Work areas having a history of, or the potential for, airborne transuranics were evaluated to determine if the licensee had considered the potential for transuranic isotopes and provided appropriate worker protection. The adequacy of the licensee's internal dose assessment process for internal exposures greater than 50 millirem CEDE was assessed.

The inspectors reviewed the licensee's physical and programmatic controls for highly activated and/or contaminated materials (non-fuel) stored within spent fuel and other storage pools.

b. Findings

No findings of significance were identified.

.3 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed selected licensee corrective action reports (Condition Reports/Action Requests) written since the start of Q1M16 to address access controls and high radiation area radiological incidents in high radiation areas <1R/hr to determine if identified problems were entered into the corrective action program for resolution. Staff members were interviewed and corrective action documents reviewed to verify that follow-up activities were being conducted in an effective and timely manner commensurate with their importance based on safety and radiological risk. Based on reviews of the corrective action reports, the inspectors evaluated the licensee's process for problem identification, characterization, prioritization, and verified that problems were entered into the corrective action program and resolved.

b. Findings

No findings of significance were identified.

.4 Job-In-Progress Reviews

a. Inspection Scope

The inspectors selected three Q1M16 maintenance outage jobs being performed in high radiation areas (<1 R/hr) for observation of work activities that presented the greatest radiological risk to workers. Those activities included the repair of the Unit 1 reactor head vent, remove and replace selected Unit 1 emergency relief valves and remove/replace/test the 1B recirculation pump seal.

The inspectors reviewed all radiological job requirements which included radiation work permit requirements and work procedure requirements, and attended radiation work permit/as low as reasonably achievable job briefings. Job performance was observed with respect to these requirements to verify that radiological conditions in the work area were adequately communicated to workers through prejob briefings and postings.

During job performance observations, the inspectors verified the adequacy of radiological controls including required surveys for system breach radiation, contamination, and airborne surveys, radiation protection job coverage which included audio and visual surveillance for remote job coverage, and contamination controls.

b. Findings

No findings of significance were identified.

.5 High Risk Significant, High Dose Rate High Radiation Area and Very High Radiation Area Controls

a. Inspection Scope

The inspectors reviewed the licensee's high risk significant, high dose rate and very high dose rate controls to determine if workers were adequately protected from radiological overexposure. Discussions were held with the Radiation Protection Manager concerning high dose rate/high radiation area and very high radiation area controls and procedures including any procedural changes that had occurred since the last inspection in order to verify that any procedure modifications did not substantially reduce the effectiveness and level of worker protection. The inspectors also verified during plant walkdowns that the posting and locking of all entrances to locked high radiation areas were adequate.

b. Findings

No findings of significance were identified.

.6 Radiation Worker Performance

a. Inspection Scope

During Q1M16 job performance observations, the inspectors evaluated radiation worker performance with respect to stated radiation protection work requirements and verified that workers were aware of the significant radiological conditions in their workplace, the radiation work permit controls and limits in place, and that their performance had accounted for the level of radiological hazards present.

Selected condition reports were reviewed to determine if radiologically significant events identified during Q1M16 were due to radiation worker errors to determine if there was an observable pattern traceable to a similar cause, and to determine if this perspective matched the corrective action approach taken by the licensee to resolve the reported problems. These problems, along with planned or taken corrective actions were discussed with the Radiation Protection Manager.

b. Findings

No findings of significance were identified.

.7 Radiation Protection Technician Proficiency

a. Inspection Scope

During Q1M16 job performance observations, the inspectors evaluated radiation protection technician performance with respect to radiation protection work requirements to verify if they were aware of the radiological conditions in their workplace, the radiation work permits controls and limits in place, and to determine if their performance was consistent with their training and qualifications with respect to the radiological hazards and work activities.

Condition Reports written during Q1M16 were reviewed to determine if any radiologically significant events were found to have resulted from radiation protection technician error. The reviews were conducted to determine if there was an observable pattern traceable to a similar cause, and to determine if this perspective matched the corrective action approach taken by the licensee to resolve the reported problems.

b. Findings

No findings of significance were identified.

2OS2 As-Low-As-Is-Reasonably-Achievable Planning And Controls (71121.02)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed pertinent information regarding plant collective exposure history, current exposure trends, and ongoing or planned activities in order to assess current performance and exposure challenges. This included determining the plant's current 3-year rolling average collective exposure.

The inspectors reviewed Q1M16 work scheduled during the inspection period and associated work activity exposure estimates and/or previous work activity history data including selective work activities which were likely to result in the highest personnel collective exposures. Site specific trends in collective exposures (using NUREG-0713 and plant historical data) and source-term (average contact dose rate with reactor coolant piping) measurements (using EPRI TR-108737 and/or plant historical data, when available) were determined. Site specific procedures associated with maintaining occupational exposures as-low-as-reasonably-achievable (ALARA), and processes used to estimate and track work activity specific exposures were reviewed.

b. Findings

No findings of significance were identified.

.2 Radiological Work Planning.

a. Inspection Scope

The inspectors reviewed the licensee's list of work activities ranked by actual/estimated exposure that were in progress, or that were completed during the Q1M16, and selected several work activities of highest exposure significance. Those activities included the repair of the Unit 1 reactor head vent, remove and replace selected Unit 1 emergency relief valves, and remove/replace/test the 1B recirculation pump seal. The inspectors reviewed the ALARA work activity evaluations, exposure estimates, and exposure mitigation requirements for each of the work activities in order to determine if the licensee had established procedures, engineering and work controls (based on sound radiation protection principles) to achieve occupational exposures that were ALARA. This also involved determining if the licensee had reasonably grouped the radiological work into work activities, based on historical precedence, industry norms, and/or special circumstances.

The inspectors compared the results achieved at selected phases of each work activity (dose rate reductions, person-rem used) with the intended dose established in the licensee's ALARA planning for these work activities and reviewed the reasons (e.g., failure to adequately plan the activity, or failure to provide sufficient work controls) for any inconsistencies between intended and actual work activity doses.

The interfaces between operations, radiation protection, maintenance, maintenance planning, scheduling and engineering groups were discussed with ALARA personnel. The interfaces were evaluated to identify interface problems or missing program elements. The integration of ALARA requirements into work procedure and radiation work permit documents was evaluated to verify that the licensee's radiological job planning would reduce dose. The inspectors compared the person-hour estimates provided by maintenance planning and other groups to the radiation protection group with the actual work activity time requirements and evaluated the accuracy of these time estimates.

Shielding requests generated by the radiation protection group were evaluated with respect to dose rate reduction problem definition and assigned value (dose savings or dollars), along with engineering shielding response follow through. The inspectors verified that work activity planning included consideration of the benefits of dose rate reduction activities such as shielding provided by water filled components/piping, job scheduling, and shielding and scaffolding installation and removal activities.

b. Findings

No findings of significance were identified.

.3 Verification of Dose Estimates and Exposure Tracking Systems

a. Inspection Scope

The inspectors reviewed the assumptions and basis for the 2003 annual collective exposure estimate including procedures in order to verify the licensee's methodology for estimating work activity-specific exposures and the intended dose outcome. Dose rate and man-hour estimates were evaluated for reasonable accuracy.

The licensee's process for adjusting exposure estimates, or re-planning work when unexpected changes in scope or emergent work were encountered, was evaluated. The evaluation included the review of work-in-progress reviews generated during Q1M16. The evaluation also included attending ALARA Committee meetings to determine if adjustments to estimated exposure (intended dose) were based on sound radiation protection and ALARA principles, and not just adjusted to account for failures to control the work. The frequency of these adjustments (work-in-progress reviews) was reviewed to evaluate the adequacy of the original ALARA planning process.

The licensee's exposure tracking system was evaluated to determine whether the level of exposure tracking detail, exposure report timeliness, and exposure report distribution were sufficient to support control of collective exposures. Q1M16 radiation work permits were reviewed to determine if they covered too many work activities to allow work activity specific exposure trends to be detected and controlled. During the conduct of exposure significant work, the inspectors reviewed whether licensee management was aware of the exposure status of the work and would intervene if exposure trends increased beyond exposure estimates.

b. Findings

No findings of significance were identified.

.4 Job Site Inspections and As-Low-As-Reasonably-Achievable Control

a. Inspection Scope

Exposures of individuals from selected groups conducting work activities in the Unit 1 Drywell were reviewed to evaluate any significant exposure variations which may have existed among workers, and to determine whether these significant exposure variations were the result of worker job skill differences, or whether certain workers received higher doses because of poor ALARA work practices.

b. Findings

No findings of significance were identified.

.5 Source-Term Reduction and Control

a. Inspection Scope

The inspectors evaluated if the licensee had developed an understanding of the plant source-term, including knowledge of input mechanisms to reduce the source term. The inspectors also evaluated if the licensee had a source-term control strategy in place that included a cobalt reduction strategy, shutdown ramping, and operating chemistry plan designed to minimize the source-term external to the core. Other methods used by the licensee to control the source term such as preconditioning of primary system surfaces, component and system decontamination, and use of shielding were evaluated.

The licensee's identification of specific sources was reviewed, along with exposure reduction actions and the priorities the licensee had established for implementation of those actions. The results that had been achieved against these priorities since the last refueling cycle were reviewed. For the current 12 month assessment period, source reduction evaluations were verified along with actions taken to reduce the overall source-term compared to the previous year.

b. Findings

No findings of significance were identified.

.6 Radiation Worker Performance.

a. Inspection Scope

Radiation worker and radiation protection technician performance was observed during selected Q1M16 work activities being performed in high radiation areas, concentrating on work activities that presented the greatest radiological risk to workers. Those activities included the repair of the Unit 1 reactor head vent, remove and replace

selected Unit 1 emergency relief valves and remove/replace/test the 1B recirculation pump seal. The inspectors evaluated whether workers demonstrated the ALARA philosophy in practice by being familiar with the work activity scope and tools to be used and if the workers utilized ALARA low dose waiting areas. The inspectors also evaluated if work activity controls were being complied with. Also, radiation worker training/skill level was evaluated to determine if the level was sufficient relative to the radiological hazards and the work involved.

b. Findings

No findings of significance were identified.

.7 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed the licensee's self assessment of the ALARA Program to determine if the licensee's overall audit program's scope and frequency for all applicable areas under the Occupational Cornerstone met the requirements of 10 CFR 20.1101(c).

The inspectors evaluated if identified problems were entered into the corrective action program for resolution, and if they had been properly characterized, prioritized, and resolved in an expeditious manner. This included dose significant post-job (work activity) reviews, and post-outage ALARA report critiques of exposure performance.

Corrective action reports (condition reports and action reports) related to the ALARA program were reviewed and staff members were interviewed to verify that follow-up activities had been conducted in an effective and timely manner commensurate with their importance to safety and risk. The licensee's corrective action program was also reviewed to determine if repetitive deficiencies and/or significant individual deficiencies in problem identification and resolution had been addressed.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles) (71130.02)

a. Inspection Scope

The inspectors reviewed the licensee's protected area access control testing and maintenance procedures. The inspectors observed licensee testing of all protected area access control equipment to determine if testing and maintenance practices were

performance based. On two occasions the inspectors observed in-processing search of personnel, packages, and vehicles to determine if search practices were conducted in accordance with regulatory requirements.

The inspectors reviewed security-related event reports and safeguard log entries associated with the access control program for the period May 2002 through April 2003. The inspectors also reviewed the licensee's corrective action program to determine if security related issues associated with the access control program were appropriately identified, and resolved.

b. Findings

No findings of significance were identified.

3PP3 Response to Contingency Events (71130.03)

a. Inspection Scope

The inspectors walked down the licensee's protected area intrusion alarm system to identify potential vulnerabilities. The inspectors, accompanied by licensee security representatives, observed testing of selected protected area intrusion alarm zones. Alarm zone detection was evaluated by conducting various testing methods.

The inspectors also reviewed the effectiveness of alarm station personnel to recognize and identify activities in the protected area alarm detection zones on the assessment monitors. The inspectors also reviewed the field of view provided by the assessment aids to ensure compliance with the licensee's security plan.

The inspectors also reviewed a sample of licensee force-on-force drill records, and interviewed security management personnel to determine if the licensee had appropriately identified and resolved issues associated with the contingency response program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151)

.1 Initiating Events Performance Indicators

a. Inspection Scope

The inspectors reviewed licensee memoranda, operator logs, and previous NRC inspection reports to verify the Unplanned Power Changes per 7000 Critical Hours performance indicator for Units 1 and 2 from May 1, 2002, until May 31, 2003. The

inspectors used the above information to verify that the licensee accurately reported past plant performance as defined by the applicable revision of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline."

b. Findings

No findings of significance were identified.

.2 Physical Protection Performance Indicators

a. Inspection Scope

The inspectors verified the data for the Physical Protection performance indicators pertaining to Fitness-For-Duty Personnel Reliability, Personnel Screening Program and Protection Area Security Equipment. Specifically, a sample of plant reports related to security events, security shift activity logs, fitness-for-duty reports, and other applicable security records were reviewed for the period between May 2002 through April 2003.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Routine Review of Identification and Resolution of Problems

Sections 1R15 and 1R22 discussed issues related to problem identification and resolution. In both findings, the licensee initiated condition reports but did not question inadequate procedures. In addition, Section 1R22 described inadequate corrective action in response to Non-Cited Violation 50-254/03-05-02; 50-265/03-05-02 and Condition Report 2001-01007.

.2 Selected Issue Follow-up Inspection

Scaffold Installed and Stored In Close Proximity to Safety Related Equipment

a. Inspection Scope

The inspectors reviewed Condition Reports 131690 and 150880 to determine if generic implications were addressed and if corrective actions were appropriately focused to correct the problem.

b. Issues

In previous months, the inspectors identified several issues in the area of scaffold installed too close to safety related equipment. The inspectors communicated these observations with the licensee and Condition Report 131690 was generated. The inspectors selected this condition report and others generated within the past several months related to scaffold concerns for a periodic review. In particular, the inspectors

reviewed Condition Report 150880 that was initiated after identification of scaffold erected in close proximity (within 5.5 inches in accordance with site procedures) and stored beneath the Unit 2 torus emergency core cooling system ring header, a safety related component.

Immediate corrective actions related to the condition reports were timely and appropriate. Long-term corrective actions were focused on prevention through additional training and oversite. The inspectors noted that the proposed training at the worker and supervisory levels were sufficient.

Condition Report 150880 was initiated when inspectors identified scaffold installed below the torus area that was in close proximity to the torus emergency core cooling system ring header. Once the inspectors shared this observation with licensee management, immediate corrective actions were taken to remove the scaffold from the torus area. The inspectors determined through interviews that contract personnel erected the scaffold to store scaffold equipment (poles, knuckles, planks, etc.) for future use in the reactor building subfloor areas. Although the individuals involved were skilled at properly constructing the scaffold, they considered the scaffold to be a storage rack and did not follow the scaffold installation process and procedure, MA-AA-716-025, "Scaffold Installation, Modification, and Removal Request Process," Revision 0. In particular, the inspectors observed that the authorization paperwork required in connection with scaffold erection was not completed. This was evident when the inspectors noted that scaffold tags normally attached to the scaffold structure were not present. Also, the inspectors noted that the scaffold pieces were in close proximity (within 5.5 inches in accordance with MA-AA-716-025) to the torus emergency core cooling ring header. Although this was another example when scaffold was not erected in accordance with site procedures, the causal factors were not similar to the previous finding identified in NRC Inspection Report 50-054/02-08 (Section 1R20). The recent occurrence identified a weakness in personnel's understanding of scaffold installation near safety-related equipment that was to be used for something other than the intent to support a maintenance activity. The prior occurrences identified were scaffolds installed in contact with safety related equipment that were to be used to support equipment maintenance. Therefore, the prior corrective actions were sufficient. The inspectors noted that no further examples of scaffold issues were identified.

4OA3 Event Follow-up (71153)

.1 Unit 2 3B Power Operated Relief Stuck Open at Full Power Condition: The inspectors evaluated the facts and circumstances surrounding the Unit 2 spurious opening of the 3B power-operated relief valve. The inspectors evaluated the performance of the mitigating systems and licensee actions. Also the inspectors assessed the licensee's performance in classifying the event in accordance with emergency action level procedures and in making timely notifications to the NRC and others in accordance with federal regulations. The power-operated relief valve opening led to a manual reactor scram and subsequent general station emergency plan ALERT declaration. Details of the event, the licensee's response, and the NRC's evaluation were documented in NRC Special Inspection Report 50-265/03-06.

.2 Unit 2 Steam Dryer Failure: The inspectors assessed the licensee's actions taken in response to an increase in Unit 2 moisture carryover on May 10, 2003. Prior to completing this inspection, the NRC determined that a special inspection would be performed to review the steam dryer's performance history, the consequences resulting from dryer damage, the adequacy of the licensee's dryer repair plans, and the potential for dryer failures in other boiling water reactors. Conclusions from this inspection will be contained in NRC Special Inspection Report 50-265/03-11.

4OA4 Cross-Cutting Issues

Sections 1R15, 1R19, and 1R22 discuss cross-cutting issues related to problem identification and resolution.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. T. Tulon and other members of licensee management at the conclusion of the inspection on July 8, 2003. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

Interim exits were conducted for:

- Safeguards Inspection with Mr. T. Tulon on May 22, 2003.
- Emergency preparedness with Mr. S. McCain on May 29, 2003.
- Radiation Protection inspection with Mr. T. Tulon on June 13, 2003.

4OA7 Licensee-Identified Violations

The following violations of very low significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Manual, NUREG-1600, for being dispositioned as Non-Cited Violations.

Cornerstone: Mitigating Systems

1. Technical Specification 3.0.4. prohibits entry into a MODE or other specified condition in the Applicability when a limiting condition for operation is not met. Contrary to the above, on or about May 29, 2003, the licensee placed Unit 1 in MODE 2 and MODE 1, both conditions in the Applicability for which a limiting condition for operation was not met. During this period, the unit would have been in Condition B of Technical Specification 3.5.1 because the 1B core spray loop was inoperative due to the presence of excessive gas in the core spray piping, a condition not discovered until June 4, 2003. The excessive gas indication was entered into the corrective action program as Condition

Report 161741. Condition Report 164026 initiated a root cause analysis and extent of condition review.

2. Technical Specification 3.3.5.1 requires that the supported feature be declared inoperable if the required channel is not restored within 24 hours. The Unit 2 emergency core cooling system low pressure coolant injection recirculation riser loop select high differential pressure “C” channel was valved out of service and inoperable from March 24, 2003, until June 20, 2003. This rendered the low pressure coolant injection subsystems inoperable. Technical Specification 3.5.1 required the unit to be in a hot shutdown condition within 12 hours and in a cold shutdown condition within 36 hours if two low pressure coolant injection subsystems are inoperable and one of two required low pressure emergency core cooling system subsystems was not returned to an operable status within 3 days. The licensee initiated Condition Report 164221 to document the occurrence and immediate actions were taken to restore operability. The licensee will conduct a root cause evaluation.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

T. Tulon, Site Vice President
B. Swenson, Plant Manager
D. Barker, Radiation Protection Manager
W. Beck, Regulatory Assurance Manager
G. Boerschig, Work Control Manager
R. Gideon, Engineering Manager
K. Hungerford, Wackenhut Project Manager
A. Javorik, Maintenance Manager
M. Karney, Midwest ROG Security Manager
K. Leech, Security Manager
K. Moser, Chemistry/Environ/Radwaste Manager
M. Perito, Operations Manager
D. Hieggelke, Nuclear Oversight Manager
S. McCain, Corporate Emergency Planning Manager

Nuclear Regulatory Commission

M. Ring, Chief, Reactor Projects Branch 1
C. Lyon, Project Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-254, 265/03-05-01	NCV	Failure to Provide a Correct Procedure for Venting Emergency Core Cooling System to Demonstrate the Piping Full of Water (Section 1R15)
50-254, 265/03-05-02	NCV	Failure to Implement Adequate Corrective Action for a Previously Identified Emergency Diesel Generator Preconditioning Concern (Sections 1R19, 1R22)

Closed

50-254, 265/03-05-01	NCV	Failure to Provide a Correct Procedure for Venting Emergency Core Cooling System to Demonstrate the Piping Full of Water (Section 1R15)
50-254, 265/03-05-02	NCV	Failure to Implement Adequate Corrective Action for a Previously Identified Emergency Diesel Generator Preconditioning Concern (Sections 1R19, 1R22)

Discussed

50-254/01-08-02	URI	Performance Indicator - Calculation (Acceptance Criteria for Gas in Emergency Core Cooling System) (Section 1R15)

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather

Summer of 2003 - Action Item List; 5/12/2003

Summer Readiness Work Orders; 4/10/2003

OP-AA-108-109; Seasonal Readiness; Revision 1

Updated Final Safety Analysis Report

1R04 Equipment Alignment

QCOP 6600-01; Diesel Generator Preparation for Standby Operation; Revision 29

QCOP 1300-01; Reactor Core Isolation Cooling System Preparation for Standby Operation; Revision 24

QCOP 2900-01; Safe Shutdown Makeup Pump System Preparation for Standby Operation; Revision 18

Technical Specifications

Updated Final Safety Analysis Report

Exelon Standardized Emergency Plan; Revisions 12, 13 and 14

1R05 Fire Protection

OP-AA-201-001; Fire Marshall Tours; Revision 1

Various Sections; Quad Cities Fire Hazards Analysis; Revision 13; August 2001

Fire Protection Pre-plan RB-5; Fire Zone 11.2.22

Fire Protection Pre-plan RB-6; Fire Zone 11.2.24

Fire Protection Pre-plan RB-7; Fire Zone 1.1.1.2

Fire Protection Pre-plan RB-8; Fire Zone 1.1.1.3

Fire Protection Pre-plan RB-9; Fire Zone 1.1.1.4

Fire Protection Pre-plan RB-10; Fire Zone 1.1.1.5

1R06 Flood Protection

Model Work Order 99175377; Inspect Unit 1 Reactor Building Internal Flood Barriers; dated October 12, 2002

Model Work Order 99175201; Inspect Unit 2 Reactor Building Internal Flood Barriers; dated February 5, 2002

CR Q2001-00890; Residual Heat Removal Room 1A Submarine Door Found Not Completely Dogged; dated March 20, 2001

CR 123037; Verification of Unplugged Test Lines; dated September 16, 2002

CR 128693; Submarine Doors' Posted Instructions; dated October 23, 2002

Technical Requirements Manual Specification 3.7.f; Flood Protection

Updated Final Safety Analysis Report Section 3.4; Water Level (Flood) Design

QOP 0020-03; RHR and Core Spray Room Draining; Revision 3

QCAP 0250-06; Control of In-Plant Watertight "Submarine" Doors; Revision 7

1R11 Licensed Operator Requalification

QGA 200; Primary Containment Control; Revision 8

QGA 101; RPV Control (ATWS); Revision 10

QGA 100; RPV Control; Revision 7

QCOP 0700-02; Intermediate Range Monitor Operation (IRM); Revision 13

EP-AA-114; Notifications; Revision 4

EP-AA-111; Emergency Classification and Protective Action Recommendations; Revision 6

QCOA 3300-01; Loss of Condensate Pump; Revision 14

QCOA 0700-03; Loss of Neutron Flux Indication; Revision 6

QCOA 0300-01; Control Rod Drive Pump Failure; Revision 14

QCOA 0201-01; Increasing Drywell Pressure; Revision 16

1R12 Maintenance Effectiveness

CR 00137995, "NOS Identified Errors in the Operability Determination (CR #129737)," dated 01/03/03

CR 00129737, "2A RHR HX Leaking from the Reactor Side into Service Water Side," dated 10/31/2002

CR 00126984, "Service Water Radiation Monitor Spike After Starting 2A RHRSW Pump," dated 10/11/02

1R13 Maintenance Risk Assessment and Emergent Work

Work Week Safety Profile; Week of March 31, April 21, April 28, May 26, June 23, 2003

OU-QC-104; Daily Risk Factor Chart, Attachment 1; Revision 1

WC-AA-104; Review and Screening for Production Risk; Revision 4

Online Work Schedules; Week of March 31, April 21, April 28, May 26, June 23, 2003

Work Order 00581567-01, Rod Motion Timer Not Working, June 11, 2003

1R14 Non-Routine Evolutions

Refer to NRC Special Inspection Report 50-265/03-06

1R15 Operability Evaluations

GL 90-05; Guidance for Performing Temporary Non-Code Repair; 8/10/1990; Of ASME Code Class 1, 2, and 3 Piping

GL 91-18; Resolution of Degraded and Nonconforming Conditions; 10/8/1997; and On Operability

CR 152960; RHRSW Line 2-1043B-14: Localized thin Spot Detected; 4/8/2003

WO 564702; Unit 1 'A' RHRSW Patch Plate Repair

CR 158145; Unit 2 Steam Dryer Degradation

Licensee Event Report 2002-003-00, Reactor Shutdown due to Failure of Reactor Steam Dryer from Flow-Induced Vibrations as a Result of Extended Power Uprate

QCOS 1400-10, Core Spray Operability Verification, Revision 13

WO 00572810-01, 1B CS Monthly Operability Verification

CR 161741, During QCOS 1400-10, the observed 12-minute no-flow time exceeded the 39-second acceptance criteria

CR 161391, New 1B Recirculation MG Set voltage controller does not maintain 70volts/hertz output.

CR 154400, B-Loop RHR Relief Valve (2-1001-22B) Opened and Failed to Reseat Until the RHR Pump Was Stopped

Licensee Procedure LS-AA-105, "Operability Determinations," Revision 0

Exelon Letter RS-03-127, dated June 27, 2003, Subject: Commitments for Resolution of Steam Dryer Degradation Issue

1R16 Operator Workarounds

Open Operator Work Arounds and Operator Challenges List; May 2003

01-021 OWA; Operators have to Manually Fill the Diesel Fire Pump Day Tanks per QCOP 4100-16 Due to Solenoid Operator Valve Removal For Pressure Locking Concerns

02-015 OWA; Mezzanine Area Fire Annunciators Will Activate for Unit 1 and Unit 2 During Fire Diesel Starts Due to Momentary Pressure Reductions in Fire Header Pressure

1R19 Post Maintenance Testing

Work Order 450010; Replace Unit 1 RCIC Rupture Discs for Preventive Maintenance

QCOS 1300-05; Quarterly RCIC Pump Operability Test

QCOS 1300-06; RCIC System Power Operated Valve Test; Revision 20

QCOS 6600-42; Unit 2 Diesel Generator Load Test; Revision 12

QCOS 6600-06; Diesel Generator Cooling Water Pump Flow Rate Test; Revision 25

QCOS 6600-45; Unit 2 Diesel Generator Semi-Annual Timed Start Test; Revision 7

QCOS 0010-07; Equipment External Leak Test; Revision 1

QCMPM 6600-02; Diesel Engine Thermostatic Valve Inspection; Revision 7

QCMMS 6600-03; EDG Periodic Preventive Maintenance Testing; Revision 17

MA-QC-773-302; QC Nuclear Operational Analysis Emergency Diesel Generator Relay Routine; Revision 2

QCEPM 0400-10; Emergency Diesel Speed Sensing Circuit Testing and Calibration; Revision 12

QCIPM 6600-02; Unit 2 DG Trip and Alarm Switches Calibration, Protective Trip Bypass and Functional Test; Revision 6

QCOS 1000-04; RHR Service Water Pump Operability Test; Revision 36

QCOS 1000-09; RHR Power Operated Valve Test; Revision 15

QCMPM 5700-01; Emergency Air Handling Unit Maintenance and Inspection; Revision 13

Work Order 00581567-01, Rod Motion Timer Not Working, June 11, 2003

QCEPM 0700-12, Test and Maintenance of Reactor Manual Control Timer, Revision 10

CR 162624, Digital timers did not function properly for acquisition of EDG starting timers during performance of monthly run. The diesel was shutdown and restarted.

WR 00094706, TD2 timed out at 20.28 seconds, acceptance criteria is 13.5 to 16.5 seconds, need to calibrate TD2. This is corrective action for CR 154654.

CR 154654, TD2 failed testing during performance of WO 00553955-01/CQEM 700-18.

CQOS 6600-43, Unit ½ Diesel Generator Load Test, Revision 12

1R20 Refueling and Outage

QCGP 1-1; Normal Startup; Revision 47

QCGP 2-1; Normal Shutdown; Revision 38

QCOP 1000-05; Shutdown Cooling Operation; Revision 32

QCOS 1000-07; Cold Shutdown RHR System Valve Test; Revision 15

QCOP 0201-02; Filling the Reactor Vessel and/or Reactor Cavity Using a Condensate Booster Pump Via the Feedwater System; Revision 21

QCOS 0202-08; Reactor Recirculation Cold Shutdown Power Operated Valve Test; Revision 7

QCIS 0700-09; Neutron Monitoring Functional Tests with Reactor Mode Switch Not in Run; Revision 25

QCOS 0203-03; Main Steam Relief Valves Operability Test; Revision 19

QCGP 2-3; Reactor Scram; Revision 45

QCGP 4-1; Control Rod Movements and Control Rod Sequence; Revision 23

1R22 Surveillance Testing

QCIS 0700-23; Unit 2 Division I Power Operation APRM Functional Test; Revision 1

QCOS 1600-32; Drywell/Torus Close out; Revision 9

QCOS 0250-04; MSIV Closure Test; Revision 15

Work Request 86942; 1B, 2B, 2A, and 2C MSIV Need Adjustment and Retiming

QCOS 0700-23; Unit 2 Division I Power Operation APRM Functional Test; Revision 1

Technical Specifications

Updated Final Safety Analysis Report

QCOS 1400-10, Core Spray Operability Verification, Revision 13

WO 00572810-01, 1B CS Monthly Operability Verification

CR 161741, During QCOS 1400-10, the observed 12-minute no-flow time exceeded the 39-second acceptance criteria

WO 00378580-01, DG Endurance Margin/Full Load Reject/Hot Restart

Operations Standing Order 03-005, Preconditioning

CR 161478, On June 2, 2003, with U2 EDG Endurance Run Surveillance In Progress, the U2 EDG was started without starting the recorder that measures time to rated frequency and voltage. The EDG was shutdown and restarted IAW QCOS 6600-20.

CR 163903, Additional Concerns over Preconditioning of Diesel Generator

Exelon Letter SVP-01-083, dated April 8, 2001, Subject: Quad Cities Nuclear Power Station - Preconditioning of Emergency Diesel Generator Air Start Systems, Fuel Systems, and other Engine and Electrical Components

NRC Information Notice 97-16: Preconditioning of Plant Structures, Systems, and Components Before ASME Code Inservice Testing or Technical Specification Surveillance Testing

QCOS 6600-20, “Diesel Generator Endurance and Margin/Full Load Reject/Hot Restart Test,” Revision 32

CR 162624, Digital timers did not function properly for acquisition of EDG starting timers during performance of monthly run. The diesel was shutdown and restarted.

1R23 Temporary Plant Modifications

EC 342702 Installation of the Nullifying Jumper for 1A EHC Pressure Regulator

EC00340602 Install Supplemental Cooling Equipment for U2 Isophase Bus Duct Cooling

QCOP 5370-05 Isolated Phase Bus Cooling Water Temporary Modification Operation, Revision 2

1EP6 Drill Evaluation

QGA 200; Primary Containment Control; Revision 8

QGA 101; RPV Control (ATWS); Revision 10

QGA 100; RPV Control; Revision 7

QCOP 0700-02; Intermediate Range Monitor Operation (IRM); Revision 13

EP-AA-114; Notifications; Revision 4

EP-AA-111; Emergency Classification and Protective Action Recommendations; Revision 6

QCOA 3300-01; Loss of Condensate Pump; Revision 14

QCOA 0700-03; Loss of Neutron Flux Indication; Revision 6

QCOA 0300-01; Control Rod Drive Pump Failure; Revision 14

QCOA 0201-01; Increasing Drywell Pressure; Revision 16

Licensed Operator Requalification Training; LORT-1501-EPU; Revision 13

QCOA 0900-01; Loss of Annunciators; Revision 8

QCOA 0202-04; Reactor Recirculation Pump Trip - Single Pump; Revision 19

QCOA 6100-01; Loss of Transformer 12 During Power Operation; Revision 18

2OS1 Access Control

RP-AA-460; Controls for High and Very High Radiation Areas; Revision 2

QCFHP 0500-01; Spent Fuel Storage Inventory Control and Audit; Revision 4

QCFHP 0500-01 Attachment A; Spent Fuel Storage Pool Inventory Log; June 12, 2003

2OS2 ALARA Planning and Controls

Focus Area Self-Assessment; ALARA Planning and Control; October 21-25, 2002

Personnel Dose Report (By Entry) for RWPs 10002904, 10002923, 10002783; May 29, 2003

Q1M16 Station ALARA Committee Meeting Agenda; May 22, 2003

RP-AA-400; ALARA Program; Revision 2

RP-AA-401; Operational ALARA Planning and Controls; Revision 2

AR 00160366; ERV Scaffolding Installation Exceeded Estimate; May 24, 2003

AR 00160369; Additional Dose Required to Remove FME from 'C' MSL; May 5, 2003

AR 00160372; FME Cover Removal Issues on 3D ERV; May 24, 2003

10002572 RWP/ALARA Plan; 1B Recirc Seal, Remove/Replace/Test/Vent (Q1M16); Revision 1

10002783 RWP/ALARA Plan: Unit 1RX Disassembly/Reassembly/Cavity Work/Wall Cleaning (Q1M16); Revision 0

10002925 RWP/ALARA Plan: Unit 1 Steam Leak on 2" RX Head Vent: Repair (Q1F49); Revision 1

10002904 RWP/ALARA Plan/Work-In-Progress Reviews; Unit 1ERV/Target Rock Valves: Remove/Replace (Q1M16); Revision 1

10002227 Work-In-Progress Review: Unit 1 Drywell Shielding Activities (Q1M16); May 21, 2003

10002230 RWP; Unit 1 Coordinator Walkdowns; Revision 0

10002146 RWP; NRC/Admin/Visitor Access to RCA; Revision 0

3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles)

SY-AA-101-112; Searching Personnel and Packages

SY-AA-101-122; Testing Security Equipment; Revision 6

SY-AA-101-123; Searching Vehicles and Cargo/Material

Security Logged Events; May 2002 through April 2003

3PP3 Response to Contingency Events

NOS Security Audit Report No. NOSA-QDC-03-03; April 14 - 18, 2003

Force-on-Force Exercise Evaluations; May 2002 through February 2003

SY-AA-101-122; Testing Security Equipment; Revision 7

CRs (Security Related); May 2002 through May 2003

4OA1 Performance Indicator Verification

Selected Operator Logs May 2002 - May 2003

LS-AA-2030; Monthly Performance Indicator Data Elements for Unplanned Power Changes per 7000 Critical Hours; Revision 2

Selected NRC Inspection Reports dated May 2002 - May 2003

Nuclear Energy Institute Document 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 2

Units 1 and 2 Operating Data Reports dated May 2002 - May 2003

4OA2 Identification and Resolution of Problems

CR 150880; NRC Identified Scaffold Concerns

CR 131690; Improper Scaffold Construction and Procedure Adherence

MA-AA-716-025; Scaffold Installation, Modification, and Removal Request Process; Revision 0

MA-AA-716-026; Station Housekeeping/Material Condition Program; Revision 1

CR 00115362, 2A Recirc. MG Set Ckt. Bkr. Failed to Open on Demand on July 12, 2002

QCEPM 0200-10, Recirc M/G Set Field Breaker Inspection and Test, Revision 9

December 13, 1987, A. W. Oubre, GE Failure Analysis Report on Circuit Breaker Type AKF-2-25, S/N 179A5094LD

CR Q2001-01007, EDG timed start test preconditioning

NCV 50-254/01-05-04; 50-265/01-05-04, Violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” for inadequate test procedures for performing EDG TS surveillance testing

NRC Information Notice 97-16: Preconditioning of Plant Structures, Systems, and Components Before ASME Code Inservice Testing or Technical Specification Surveillance Testing

CR 163903, Additional Concerns over Preconditioning of Diesel Generator

4OA3 Event Followup

NRC Special Inspection Report 50-265/03-06

NRC Special Inspection Report 50-265/03-11

Exelon Letter RS-03-127, dated June 27, 2003, Subject: Commitments for Resolution of Steam Dryer Degradation Issue

Temporary Change TIC-672, "Monitoring Plan for the Unit 2 Steam Dryer Following Startup From Q2F59 to 2511 MWT."

4OA4 Cross-Cutting Findings

CR 165132 Adequacy of ECCS venting procedures, review extent of condition

CR 163903, Additional Concerns over Preconditioning of Diesel Generator

4OA7 Licensee-Identified Violations

CR 164221; Prompt Investigation Regarding 2-0261-34C Valve Mispositioning

MA-QC-741-206; Unit 2 LPCI Recirculation Riser D/P Functional Test; Revision 0

Schematic Diagram 4E-2483D; RHR System Relay Logic Division I; Sheet 4; Revision J

Schematic Diagram 4E-2438F; RHR System Relay Logic Division II; Sheet 6; Revision L

CR 161741, During QCOS 1400-10, the observed 12-minute no-flow time exceeded the 39-second acceptance criteria

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management Systems
ALARA	As-Low-As-Reasonably-Achievable
CFR	Code of Federal Regulations
IDNS	Illinois Department of Nuclear Safety
NCV	Non-Cited Violation
NRC	United States Nuclear Regulatory Commission
SDP	Significance Determination Process
URI	Unresolved Item