

# UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352

September 16, 2010

Mr. Michael J. Pacilio Senior Vice President, Exelon Generation Company, LLC President and Chief Nuclear Officer (CNO), Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION

05000254/2010-006; 05000265/2010-006

Dear Mr. Pacilio:

On August 27, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed a routine biennial Problem Identification and Resolution (PI&R) inspection at your Quad Cities Nuclear Power Station, Units 1 and 2. The enclosed report documents the inspection results, which were discussed on August 27 with Mr. Gideon and other members of your staff.

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

Based on the results of this inspection, no findings of significance were identified. The team concluded that problems were properly identified, evaluated, and resolved within the corrective action program (CAP). Assessments, the use of operating experience, and monitoring of the safety-conscious work environment were also adequate. There were some minor issues identified with CAP implementation such that continued attention to the program is appropriate. Therefore, your staff should be attentive to the significance and difficulty certain issues represent so that the corrective actions are more appropriately aggressive.

M. Pacilio -2-

In accordance with 10 CFR 2.390 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 Website at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (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 05000254/2010-006; 05000265/2010-006

w/Attachment: Supplemental Information

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### U. S. NUCLEAR REGULATORY COMMISSION

### **REGION III**

Docket Nos: 50-254, 50-265 License Nos: DPR-29, DPR-30

Report No: 05000254/2010-006 and 05000265/2010-006

Licensee: Exelon Nuclear

Facility: Quad Cities Nuclear Power Station, Units 1 and 2

Location: Cordova, IL

Dates: August 9, 2010, through August 27, 2010

Inspectors: C. Moore, Project Engineer, DRP

D. Jones, Reactor Inspector, DRS

B. Cushman, Quad Cities Resident Inspector, DRP

A. Shaikh, Reactor Inspector, DRS

C. Mathews, Illinois Emergency Management Agency

(IEMA) Inspector

Approved by: M. Ring, Chief

Branch 1

**Division of Reactor Projects** 

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### **SUMMARY OF FINDINGS**

IR 05000254/2010-006; 05000265/2010-006; 08/9/2010 - 08/27/2010; Quad Cities Nuclear Power Station, Units 1 & 2 routine biennial problem identification and resolution inspection (PI&R).

This inspection was performed by three regional inspectors, the Quad Cities Resident Inspector, and the Illinois Emergency Management Agency Resident Inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### **Problem Identification and Resolution**

On the basis of the sample selected for review, the team concluded that implementation of the Corrective Action Program (CAP) was generally good. The licensee had a low threshold for identifying problems and entering them into the CAP. Items entered into the CAP were screened and prioritized in a timely manner using established criteria; were properly evaluated commensurate with their safety significance; and corrective actions were generally implemented in a timely manner, commensurate with the safety significance. The team noted that the licensee reviewed operating experience for applicability to station activities. Audits and self-assessments were determined to be performed at an appropriate level to identify deficiencies. On the basis of licensee self-assessments and interviews conducted during the inspection, workers at the site expressed freedom to raise safety concerns. The team observed that some corrective actions were not fully implemented in a timely manner.

### A. NRC-Identified and Self-Revealed Findings

No violations of significance were identified.

### B. Licensee-Identified Violations

None.

### **REPORT DETAILS**

#### 4. OTHER ACTIVITIES

### 4OA2 Problem Identification and Resolution (71152B)

Completion of sections .1 through .4 constitutes one biennial sample of problem identification and resolution as defined in Inspection Procedure 71152.

### .1 Assessment of the CAP Effectiveness

### a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's Corrective Action (CA) program implementing procedures and attended CA program meetings to assess the implementation of the CA program by site personnel.

The inspectors reviewed risk and safety significant issues in the licensee's CA program since the last NRC Problem Identification and Resolution (PI&R) inspection in July - August of 2008. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors used issues identified through NRC generic communications, department self-assessments, licensee audits, operating experience reports, and NRC documented findings as sources to select issues. Additionally, the inspectors reviewed issue reports generated as a result of facility personnel's performance in daily plant activities. In addition, the inspectors reviewed Issue Reports (IRs) and a selection of completed investigations from the licensee's various investigation methods, which included root cause, apparent cause, equipment apparent cause, and common cause investigations.

During the reviews, the inspectors determined whether the licensee staff's actions were in compliance with the facility's corrective action program and 10 CFR Part 50, Appendix B requirements. Specifically, the inspectors determined if licensee personnel were identifying plant issues at the proper threshold, entering the plant issues into the station's CA program in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also determined whether the licensee staff assigned the appropriate investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions for selected issue reports, completed investigations, and NRC findings, including non-cited violations.

#### b. Assessment

#### (1) Effectiveness of Problem Identification

Overall, based on the number of IRs generated by all the plant departments, plant procedures that established a low threshold for reporting, and the types of issues in the program, the team concluded that the licensee was adequately identifying issues in the CAP. However, there was one instance during the course of a root cause investigation the licensee failed to identify an unmonitored release path to the environment. The root cause investigation performed following the explosion of the Floor Drain Surge Tank vestibule is the root cause evaluation in question. The root cause report failed to identify

that an uncontrolled and unmonitored release of radioactivity had occurred on multiple occasions prior to the explosion of the Floor Drain Surge Tank vestibule when its ventilation fan and the Max Recycle ventilation fans were out-of-service and the Floor Drain Surge Tank was being filled. Since the licensee was able to show that the radiation released was less than one percent of the total annual gaseous effluent released, this violation of 10 CFR 20.1501, Radiological Surveys and Monitoring, is considered of minor significance. This NRC-identified issue was subsequently entered into the CAP.

### **Findings**

No findings of significance were identified.

### (2) Effectiveness of Prioritization and Evaluation of Issues

The team concluded that issue resolutions, established and monitored through the Ownership Review Committee and the Management Review Committee, were correctly assigned significance and priority in accordance with station procedures.

#### Findings

No findings of significance were identified.

#### (3) Effectiveness of Corrective Actions

Although corrective actions reviewed by the team were effective in most cases, several examples where results were less than desirable were also observed. While corrective actions were generally adequate, the team identified five issues that were not resolved in a timely manner. The team found that a lack of technical rigor resulted in repeat equipment issues with the Emergency Diesel Generator Cooling Water Pump and Containment Air Monitor operation and parts evaluations did not provide the intended solution. Two consecutive Personnel Contamination Events during Rad Waste Filter work and repeated problems associated with leaking Turbine Building Heating Coils were also noted. A lack of technical rigor also resulted in a problem with the Met tower not transferring information to the Plant Process Data System (PPDS), but this was not a repeat issue. In all of these cases, the licensee's response was not aggressive enough to be effective. At the time of the inspection, corrective actions were showing positive results.

#### **Findings**

No findings of significance were identified.

### .2 Assessment of the Use of Operating Experience (OE)

#### a. Inspection Scope

The inspectors reviewed the implementation of the OE program. Specifically, the inspectors reviewed implementing operating experience program procedures, attended CA program meetings to observe the use of OE information, completed evaluations of OE issues and events, and selected monthly assessments of the OE composite

performance indicators. The inspectors' review was to determine whether the licensee was effectively integrating OE experience into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE experience, were identified and effectively and timely implemented.

#### b. Assessment

The team observed that the licensee was effectively receiving and processing operating experience reports from all sources. Operating experience was being incorporated into pre-job briefings and the performance of daily activities was generally effective in preventing repeats of previous industry events.

### **Findings**

No findings of significance were identified.

### .3 Assessment of Self-Assessments and Audits

#### a. Inspection Scope

The inspectors assessed the licensee staff's ability to identify and enter issues into the CA program, prioritize and evaluate issues, and implement effective corrective actions, through efforts from departmental assessments and audits.

### b. Assessment

The programs for self-assessments and audits were scheduled and included a broad cross-section of performance areas. Procedures for performing assessments were in place and implemented, providing guidance and consistency. For the audits and assessments reviewed, no deficiencies were identified. Overall, self-assessment was adequately performed.

### **Findings**

No findings of significance were identified.

### .4 <u>Assessment of Safety-Conscious Work Environment</u>

### a. <u>Inspection Scope</u>

The inspectors assessed the licensee's safety-conscious work environment through reviews of the facility's employee concerns program (ECP) implementing procedures, discussions with coordinators of the employee concern program, interviews with personnel from various departments, and reviews of issue reports.

#### b. Assessment

The inspection team interviewed 49 plant employees. The interviews were conducted with 19 First Line Supervisors and 30 bargaining unit employees. The individuals interviewed were from the Maintenance, Operations, Stores, Work Control, Radiation Protection, Chemistry, Security, and Engineering Departments. Through our interviews with selected staff members, we did not identify any concerns that would indicate an adverse safety-conscious work environment. The team determined that employees are willing and able to raise safety concerns. However, once an issue is raised, its resolution is not always communicated to affected individuals. An example of this was when an individual reported what he thought was mold inside several Bullet Resistant Enclosures (BREs). The licensee investigated the issue and determined a course of action but did not adequately inform the entire security force, who had become aware of the issue, and were concerned for their health. This type of miscommunication can lead to safety-conscious work environment challenges. Security is evolving to correct this issue, and two new Action Tracking Items (ACITs) were generated for Issue Report (IR) 1099935 as a result of the teams' interviews.

### <u>Findings</u>

No findings of significance were identified.

### 4OA6 Management Meetings

### **Exit Meeting Summary**

On August 27, 2010, the inspectors presented the inspection results to Mr. Gideon, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report inputs discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

### SUPPLEMENTAL INFORMATION

#### **KEY POINTS OF CONTACT**

### <u>Licensee</u>

Beck, W. Regulatory Affairs Manager

Neels, V. Chemistry

Summers, P. Maintenance Director

Darin, S. Engineering O'Shea, K. Operations

Morris, J. Corrective Action Program Manager

Peterson, T. Regulatory Assurance Gideon, R. Site Vice President Williams, A Radiation Protection

# Illinois Emergency Management Agency (IEMA)

C. Mathews

### **Nuclear Regulatory Commission**

J. McGhee, Senior Resident Inspector

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

None.

### **LIST OF DOCUMENTS REVIEWED**

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### **PLANT PROCEDURES**

| Number         | Description or Title                             | Date or Revision |
|----------------|--|------------------|
| ER-AA-600-1045 | Assessment of Missed or Deficient                | Rev. 3           |
|                | Surveillances                                    |                  |
| QC-SURV-01     | Missed Surveillance Risk Assessment For the      | Rev. 1           |
|                | Unit 2 125 VDC Battery                           |                  |
| QCOS 1400-01   | Quarterly Core Spray Pump Flow Rate Test         | Rev. 39          |
| LS-AA-115      | Operating Experience Program                     | Rev. 15          |
| LS-AA-120      | Issue Identification and Screening Process       | Rev. 12          |
| LS-AA-125      | Corrective Action Program Procedure              | Rev. 14          |
| LS-AA-126      | Self-Assessment Program                          | Rev. 6           |
| PI-AA-10       | Performance Improvement Program  Description     | Rev. 0           |
| CC-AA-102      | Design Input and Configuration Change            | Rev. 14          |
|                | Impact Screening                                 |                  |
| QCOP 1000-18   | Torus Water Transfer to the Waste Collector      | Rev. 20          |
|                | Tank, Floor Drain Collector Tank, or Floor       |                  |
|                | Drain Surge Tank                                 |                  |
| QCOP 1600-16   | Floor Drain Surge Tank Transfer to Torus         | Rev. 9           |
| QCOP 2010-34   | Draining the CCSTs to the Floor Drain Surge Tank | Rev. 9           |
| QCOP 2010-37   | Processing the Floor Drain Collector Tank        | Rev. 8           |
|                | with the Floor Drain Collector pump Through      |                  |
|                | the Spare Filter to the Floor Drain Surge Tank   |                  |
|                | During Unit Outages                              |                  |
| QCOP 2099-18   | Transfer of Decontamination Water to the         | Rev. 2           |
|                | River Discharge or the Floor Drain Surge         |                  |
|                | Tank   |                  |
| QCOP 2000-37   | Pumping the Waste Collector Tank to the          | Rev. 3           |
|                | Floor Drain Surge Tank Using the Floor Drain     |                  |
|                | Collector pump                                   |                  |
| QCOP 2000-39   | Pumping the Waste Collector Tank to the          | Rev. 5           |
|                | Floor Drain Surge Tank Using the Waste           |                  |
|                | Collector pump                                   |                  |
| QCOP 2010-40   | Pumping the Floor Drain Collector Tank to the    | Rev. 4           |
|                | Floor Drain Surge Tank                           |                  |
| QCOP 5750-03   | Radwaste Ventilation System                      | Rev. 12          |
|                |  |                  |

# **PLANT PROCEDURES**

| Number                 | Description or Title   | <b>Date or Revision</b> |
|------------------------|--|-------------------------|
| QCMM 1515-08           | Inspection of Safety and Non Safety Related Check Valves During Disassembly, Repair and Reassembly of Valves | Rev. 13                 |
| QCMM 1515-07           | General Valve Packing Procedure  | Rev. 21                 |
| MA-QC-736-100          | Quad Cities Station Lubrication Guide  | Rev. 22                 |
| QCOS 0010-04           | Operations Master Lubrication List   | Rev. 42                 |
| QCOS 0202-22           | Online Testing of Unit 2 Division ii ATWS<br>Recirculation Pump Terip and Alternate Rod<br>Insertion Logic   | Rev. 4                  |
| QCOS 1000-04           | RHR Service Water Pump Operability Test  | Rev. 49                 |
| QCOS 0010-19           | Security Event Support Equipment Surveillance  | Rev. 7                  |
| QCOS 0020-02           | Safety System Monthly Manual Valve Position Verification   | Rev. 12                 |
| MA-AA-716-040          | Control Of Portable Measurement and Test<br>Equipment Program  | Rev. 7                  |
| MA-AA-716-010-<br>1005 | Operating Experience User Guide  | Rev. 0                  |
| MA-AA-716-010-<br>1104 | Mechanical Seal Leakage Evaluation and Reporting   | Rev. 0                  |
| MA-AA-716-010          | Maintenance Planning   | Rev. 16                 |

# **AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS**

| Number         | Description or Title                      | <b>Date or Revision</b> |
|----------------|---|-------------------------|
| NOSA-QDC-10-04 | NOS 2010 Chemistry Audit                  | 06/23/2010              |
| (IR# 998214)   |   |                         |
| NOSA-QDC-09-06 | NOS 2009 Radiation Protection Audit       | 08/19/2009              |
| (IR# 853531)   |   |                         |
| NOSA-QDC-10-03 | NOS Emergency Preparedness Audit          | 05/05/2010              |
| (IR# 998213)   |   |                         |
| NOSA-QDC-10-05 | Engineering Programs and Station Blackout | 04/26/2010              |
| (IR#998215)    | Audit                                     |                         |
| NOSA-QDC-10-02 | Security Programs Audit                   | 02/01/2010              |
| (IR#998212)    |   |                         |
| NOSA-QDC-10-01 | Maintenance Audit                         | 02/15/2010              |
| (IR#998209)    |   |                         |
| 862703         | Annual CCA on Chemistry Fundamentals      | 01/05/2009              |
| 995712         | Annual CCA on Chemistry Fundamentals      | 11/19/2009              |

### **MISCELLANEOUS**

| Number                | Description or Title  | <b>Date or Revision</b> |
|-----------------------|---|-------------------------|
| EC 380162             | Radiochemistry Evaluation of Quad Cities  | 05/25/2010              |
| .=                    | Unit 1 Cycle 21   |                         |
| 4E-614                | Electrical Installation Plan Surge Tank   | J                       |
|                       | Sections and Details Max Recycle Radwaste Bldg                                  |                         |
| 4E-716                | Wiring Diagram – Radwaste Building 480V   | S                       |
|                       | MCC 1A-1 Pt 2 – Max Recycle Radwaste  |                         |
| 5 1. 6 1.             | System  |                         |
| Regulatory Guide 1.21 | Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous | 2                       |
| 1.21                  | Effluents and Solid Waste   |                         |
|                       | Zimaonio ana Gona Wasio   |                         |
| WO 01236098           | Repair /Replace 1 B CS  | 08/12/2010              |
|                       | stop check valve 1-1402-65B   |                         |
| WO 1138588-01         | EDGCW pump impeller wear rings  | 09/05/2008              |
|                       | (Boroscope inspection)  |                         |
| 813347                | Emerson Part 21, Fin 1997-01, Suppl 1,  | 09/02/2009              |
|                       | Actuator Diaphragms   |                         |

### **CONDITION REPORTS GENERATED DURING INSPECTION**

| <u>Number</u> | Description or Title                          | <b>Date or Revision</b> |
|---------------|---|-------------------------|
| 1105169       | FLR Drain Surge TK Ventil Design Basis        | 08/24/2010              |
|               | Documentation                                 |                         |
| 1105713       | Enhancements Identified for RW Vent Procedure | 08/25/2010              |

### **CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

| Number   | Description or Title                                       | <b>Date or Revision</b> |
|----------|--|-------------------------|
| 00723954 | U1 EDG CW pump failure                                     | 01/18/2008              |
| 00805768 | U2 EHC Leak Approx. 5 GPH Above Water Box Between MSDT     | 08/11/2008              |
| 00923518 | Unable to Obtain H2 Seal Oil System Parameters             | 05/24/2009              |
| 00843846 | U2 EDG CWP Trip  | 11/12/2008              |
| 00962562 | Pinhole Leak Identified in Piping Downstream of 1-1402-38B | 09/08/2009              |
| 00883127 | RWCU Valve 1-1201-5 Failed to Close From Control Room      | 02/20/2009              |
| 00912355 | Combined Dry LLRT On "C" MSL Failed As Found LLRT          | 04/27/2009              |

# **CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

| Number   | Description or Title  | Date or Revision |
|----------|---|------------------|
| 00913457 | PSU – Q1R20 ADD – B Bay Main                                  | 04/29/2009       |
|          | Condenser Hole in Lagging                                     |                  |
| 00914117 | PSU – MSIV 1-203-1A 2A Switch Out Of                          | 04/30/2009       |
|          | Tolerance   |                  |
| 00920012 | PSU – Failed To Open Following Pump Run                       | 05/15/2009       |
| 00931150 | 2A Jacket Water Booster Pump Breaker                          | 06/15/2009       |
|          | Thermals Found Tripped  |                  |
| 00946407 | U2 EDG Vent Fan Tripped                                       | 07/27/2009       |
| 00955548 | U2 HPCI Pump Local PI Out-Of-Cal 1A                           | 08/20/2009       |
| 00967455 | Instrument Air Compressor Does Not Load Properly              | 09/20/2009       |
| 00991442 | NCV 09-006-01 Closure Package – Fire<br>Header Sprinkler Line | 11/10/2009       |
| 00991992 | TSC Building Failed Pressure Test                             | 11/11/2009       |
| 01006080 | Bulb Separated From Base                                      | 12/16/2009       |
|          | Base Still in Socket  |                  |
| 01023608 | U2 Instrument Air Compressor Trip                             | 01/30/2010       |
| 01028569 | U2 HPCI Trip During QCOS 2300-05                              | 02/10/2010       |
|          | Surveillance  |                  |
| 01036563 | MCC 65-1 Feed Breaker Tripped                                 | 02/28/2010       |
| 01037275 | Received U1 Digital EHC Alarms                                | 03/01/2010       |
| 01040878 | U2 SBO 'B' Diesel Jacket Water                                | 03/10/2010       |
|          | Booster Pump BKR Tripped                                      |                  |
| 01041377 | MRULE: Adverse Trend for RB Ventilation                       | 03/11/2010       |
| 01052746 | 2B RFP Vent Fan Motor Breaker Will                            | 04/05/2010       |
|          | Not Reset   |                  |
| 01066555 | Received Alarm 912-5 C1, Reactor Bldg 1 Low DP                | 05/07/2010       |
| 1073740  | FDST High Silica  | 05/26/2010       |
| 1082186  | Offgas and Effluent trending                                  | 06/18/2010       |
| 1085962  | Chimney Gas Activity Step Increase                            | 06/30/2010       |
| 836178   | FDSgT explosion from RadWaste High Organics                   | 10/27/2008       |
| 1045112  | Clinton County IA Concerned with Siren Coverage               | 03/19/2010       |
| 910737   | NOS ID Adverse trend in Site Rad Worker Practices             | 04/23/2009       |
| 942582   | NCV RWP in LHRA   | 07/16/2009       |
| 811106   | Online Emergent Dose at Quad Cities                           | 08/26/2010       |
| 844466   | Station   | 11/13/2010       |
| 876925   | Perform CCA on Rad Worker Issues at Quad Cities Station       | 02/05/2009       |

# CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

| Number  | Description or Title                         | <b>Date or Revision</b> |
|---------|--|-------------------------|
| 941800  | Operations to Perform CCA on Rad Worker      | 07/14/2010              |
| 947009  | Issues                                       | 07/29/2010              |
| 952022  | Perform Q1R20 PCE CCA                        | 08/11/2009              |
| 1018768 | Perform CCA for 2009 online dose overages    | 01/20/2010              |
|         | Perform CCA on Radiation Worker Practices    |                         |
| 1063644 | CCA required for RP Dept Communication       | 04/30/2010              |
| 1063645 | Issues                                       | 04/30/2010              |
| 866242  | Perform CCA for On-line PCEs in 2009         | 01/13/2009              |
| 1091681 | Perform CCA for Q2R20 PCEs                   | 07/17/2010              |
|         | Worker received ED Alarm                     |                         |
| 1061175 | Deficient Speakers found in Reactor          | 04/25/2010              |
| 1055818 | Building BSMNT                               | 04/13/2010              |
| 729882  | Failure of Public Address System Speaker     | 01/31/2008              |
|         | SRM Coupling Issue During Q2R20 Startup      |                         |
| 719988  | Inadequate MRULE Monitoring for RBV          | 01/09/2008              |
| 749355  | SPING  | 03/13/2008              |
| 937777  | Rx Vent SPING pump was found tripped off     | 06/30/2009              |
| 959168  | Rx Vent SPING was found tripped off          | 08/29/2009              |
|         | Rx Vent SPING pump stopped running           |                         |
| 993180  | Control room SPING terminal external fail    | 11/13/2009              |
|         | light lit                                    |                         |
| 1030415 | Control room SPING terminal external fail    | 02/12/2010              |
|         | light  |                         |
| 1105713 | Hi range detector – RV SPING not             | 08/25/2010              |
|         | functioning properly                         |                         |
| 1105169 | Enhancements Identified for RW Vent          | 08/24/2010              |
|         | Procedure                                    |                         |
| 841251  | PIR-FLR Drain Surge Tk Ventil Design         | 11/06/2008              |
|         | Basis Documentation                          |                         |
| 1016122 | Insignificant Abnormal Radiological Effluent | 01/13/2010              |
|         | Release                                      |                         |
| 1102273 | Steam Coils Freezing and Leaking on ECCS     | 08/16/2010              |
|         | Bus  |                         |
| 1056375 | LEL Above 10% in FDSGT but not a             | 04/14/2010              |
|         | Potential Explosive Conc.                    |                         |
| 918439  | 2C Condenser Backpressure Reads Higher       | 05/11/2010              |
|         | Than Expected                                |                         |
| 986413  | U2 Fuel Pool Pumps Tripped Due to            | 10/30/2009              |
|         | Refueling Activities                         |                         |
| 994823  | Operations Removed 1B RWCU Demin             | 11/17/2009              |
|         | Instead of 1A                                |                         |
| 969849  | TS SR 3.8.4.8 Frequency Not Met              | 09/24/2009              |
|         | U1 EDG CWP Tripped While Running on          |                         |
| 1078626 | Alternate Feed                               | 06/09/2010              |
|         | Preconditioning Issues                       |                         |
| 1082207 | Various Issues Identified During Inspection  | 06/18/2010              |
| 1080663 | LR Inspection 2-1001-142A Minor Corrosion    | 06/15/2010              |
|         | Identified                                   |                         |
|         |  |                         |

# CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

| <u>Number</u> | Description or Title  | Date or Revision |
|---------------|---|------------------|
| 1063300       | Evaluation of Decision Making Related to RHRSW Elbow Failure  | 04/29/2010       |
| 1065404       | Fire Protection Guided Wave Ultrasonic                        | 05/04/2010       |
|               | Testing Results   |                  |
| 1073322       | LL 1-5746-B RHR Room Cooler Tube Sheet Weld Repair            | 05/26/2010       |
| 1086791       | Nonconformance of Installed RHR/CS Pump Seal Repair Kits      | 07/01/2010       |
| 1066484       | MPT 1 Serveron Leakage Following Repairs                      | 05/06/2010       |
| 1073736       | Non Safety Related Seal Repair Kit Installed On RHR/CS Pumps  | 05/26/2010       |
| 318520        | U-2 EDG – Interior Surfaces Corrosion On                      | 10/27/2009       |
| 404-040       | Starting Air Piping   | 00/10/00/0       |
| 1045213       | U@ DG HX Flange Faces have Moderate<br>Crevice Corrosion      | 03/19/2010       |
| 962562        | Pinhole Leak Identified In Piping                             | 09/08/2009       |
|               | Downstream of 1-1402-38B                                      |                  |
| 997163        | FASA – Buried pipe / Raw Water Corrosion                      | 11/23/2009       |
| 1018379       | NOS ID'D: Incorrect Torque Sequence Given In Work package     | 01/19/2010       |
| 1103641       | NOS ID 2B ASD Troubleshooting                                 | 08/19/2010       |
| 1072793       | Preparation Deficiencies                                      | 05/24/2010       |
| 1072793       | 1B RHR RM Cooler Heat Exchanger Has Tube Sheet Pitting        | 05/24/2010       |
| 987905        | 1A RHR Room Cooler Heat Exchanger                             | 11/02/2009       |
| 849245        | Tube Sheet Has Pitting  1B RHR Room Cooler Heat Exchanger Has | 11/25/2008       |
| 049243        | Tube Sheet Pitting  | 11/23/2000       |
| 821349        | Pitting Corrosion On 2B RBCCW HX Outlet Channel               | 09/23/2008       |
| 1069983       | Unit 1 Drywell Pneumatic Compressor Seal                      | 05/17/2010       |
|               | Leak  |                  |
| 972234        | Drywell Pneumatic Compressor Leak Detected                    | 09/29/2009       |
| 952027        | 901-4 G-14 Drywell Air Compressor Trouble                     | 08/11/2009       |
| 946473        | Drywell Pneumatic Air Hi Lvl Switch<br>Inoperable             | 07/28/2009       |
| 823164        | Received Alarm 902-3 H10, "HPCI Floor                         | 09/27/2008       |
| 828820        | Drain Sump High Level" Received Unexpected Alarm 902-3, H10   | 10/09/2008       |
| 020020        | Received Onexpedied Alaini 302-3, 1110                        | 10/03/2000       |

# **OPERATING EXPERIENCE**

| Number  | Description or Title                                      | <b>Date or Revision</b> |
|---------|---|-------------------------|
| 1088576 | NRC Inspection Issue At Limerick/OE/OPEX                  | 07/07/2010              |
| 1076063 | (Vogtle) OE 31054-Dead Blow Hammer Failure                | 06/02/2010              |
| 797451  | Operating Experience / Counterfeit or<br>Fraudulent Parts | 07/17/2008              |
| 658996  | X-Ray Machine At TMI Missing Ground Pins                  | 08/09/2007              |

### LIST OF ACRONYMS USED

ACIT Action Tracking Item
CA Corrective Action

BRE Bullet Resistant Enclosure
CAP Corrective Action Program
CFR Code of Federal Regulations

DG Diesel Generator

DRP Division of Reactor Projects
ECP employee concern program
EDG Emergency Diesel Generator

IR Issue Report

LCO Limiting Condition for Operation NRC U.S. Nuclear Regulatory Commission

OE Operating Experience
PARS Publicly Available Records
PI Performance Indicator

PI&R Problem Identification and Resolution

PPDS Plant Process Data System

RFP Reactor Feed Pump
TS Technical Specification

M. Pacilio -2-

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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 05000254/2010-006; 05000265/2010-006

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Letter to M. Pacilio from M. Ring dated September 16, 2010

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION

05000254/2010-006; 05000265/2010-006

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