



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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July 30, 2008

Mr. Richard L. Anderson
Vice President
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER NRC INTEGRATED INSPECTION
REPORT 05000331/2008003

Dear Mr. Anderson:

On June 30, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Duane Arnold Energy Center. The enclosed report documents the inspection findings, which were discussed on July 10, 2008, with you 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.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

Docket No. 50-331; 72-032
License No. DPR-49

Enclosure: Inspection Report 05000331/2008003
(w/Attachment: Supplemental Information)

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Letter to R. Anderson from K. Riemer dated July 30, 2008

SUBJECT: DUANE ARNOLD ENERGY CENTER NRC INTEGRATED INSPECTION
REPORT 05000331/2008003

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REPORT 05000331/2008003

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-331
License No: DPR-49

Report No: 05000331/2008003

Licensee: FPL Energy Duane Arnold, LLC

Facility: Duane Arnold Energy Center

Location: Palo, IA

Dates: April 1 through June 30, 2008

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Enclosure

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SUMMARY OF FINDINGS

IR 05000331/2008003; 04/01/2008 - 06/30/2008; Duane Arnold Energy Center; Routine Integrated Inspection Report.

This report covers a three-month period of inspection by resident inspectors and a regional reactor engineer, as well as an announced baseline inspection by a regional health physics inspector. 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 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

No findings of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Duane Arnold Energy Center (DAEC) operated at full power for the entire assessment period except for brief down-power maneuvers to accomplish rod pattern adjustments and to conduct planned surveillance testing activities.

1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Readiness of Offsite and Alternate AC Power Systems

a. Inspection Scope

The inspectors verified that plant features and procedures for operation and continued availability of offsite and alternate AC power systems during adverse weather were appropriate. The inspectors reviewed the licensee's procedures affecting these areas and the communications protocols between the transmission system operator (TSO) and the plant to verify that the appropriate information was being exchanged when issues arose that could impact the offsite power system. Examples of aspects considered in the inspectors' review included:

- The coordination between the TSO and the plant during off-normal or emergency events;
- The explanations for the events;
- The estimates of when the offsite power system would be returned to a normal state; and
- The notifications from the TSO to the plant when the offsite power system was returned to normal.

The inspectors also verified that plant procedures addressed measures to monitor and maintain availability and reliability of both the offsite AC power system and the onsite standby AC power system prior to or during adverse weather conditions. Specifically, the inspectors verified that the procedures addressed the following:

- The actions to be taken when notified by the TSO that the post-trip voltage of the offsite power system at the plant would not be acceptable to assure the continued operation of the safety-related loads without transferring to the onsite power supply;
- The compensatory actions identified to be performed if it would not be possible to predict the post-trip voltage at the plant for the current grid conditions;
- A re-assessment of plant risk based on maintenance activities which could affect grid reliability, or the ability of the transmission system to provide offsite power; and
- The communications between the plant and the TSO when changes at the plant could impact the transmission system, or when the capability of the transmission system to provide adequate offsite power was challenged.

Specific documents reviewed during this inspection are listed in the Attachment. The inspectors also reviewed corrective action program items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their corrective action program in accordance with station corrective action procedures.

These inspection activities constituted one readiness of offsite and alternate AC power systems sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

.2 Summer Seasonal Readiness Preparations

a. Inspection Scope

The inspectors performed a review of the licensee's preparations for summer weather for selected systems, including conditions that could lead to an extended draught as a result of high temperatures.

During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report (UFSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. Specific documents reviewed during this inspection are listed in the Attachment. The inspectors also reviewed corrective action program items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their corrective action program in accordance with station corrective action procedures. The inspectors' reviews focused specifically on the following plant systems:

- The Offsite Power System, which included the Main Switchyard, the Startup Transformer, the Standby Transformer, and the Main Transformer; and
- The Onsite Emergency Power System, which included the Standby Diesel Generators (SBDGs), the 250 Vdc Electrical Power System, and both divisions of the 125 Vdc Electrical Power Systems.

These inspection activities constituted one seasonal adverse weather sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

.3 External Flooding

a. Inspection Scope

The inspectors evaluated the design, material condition, and procedures for coping with the design basis probable maximum flood. The evaluation included a review to check for deviations from the descriptions provided in the UFSAR for features intended to

mitigate the potential for flooding from external factors. As part of this evaluation, the inspectors checked for obstructions that could prevent draining and determined that barriers required to mitigate the flood were in place and operable. Additionally, the inspectors performed a walkdown of the protected area to identify any modification to the site which would inhibit site drainage during a probable maximum precipitation event or allow water ingress past a barrier. The inspectors also reviewed the abnormal operating procedure (AOP) for mitigating the design basis flood to ensure it could be implemented as written.

These inspection activities constituted one external flooding sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

.4 Readiness for Impending Adverse Weather Condition – Heavy Rainfall and External Flooding Conditions

a. Inspection Scope

Due to high river levels during the spring season and recent heavy rainfalls, the National Weather Service issued flood warnings and a prediction for the Cedar River to crest on April 28, 2008, at a level that would result in some flooding on DAEC property. The inspectors evaluated the licensee's implementation of their AOP for flooding before and during the flooding conditions. The inspectors verified that operator actions defined in the licensee's flooding procedure maintained readiness of essential systems and that minimum/adequate operator staffing was maintained onsite.

This inspection constitutes one readiness for impending adverse weather condition sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- 'A' Control Building Chiller (CBC) with the 'B' CBC out-of-service (OOS) for Planned Maintenance;
- Electric Driven Fire Pump with the Diesel Driven Fire Pump OOS for Planned Maintenance;

- 'A' Emergency Service Water (ESW) System with the 'B' SBDG OOS for Planned Maintenance; and
- 'B' SBDG following an Extended System Outage for Planned Maintenance.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, UFSAR, Technical Specification (TS) requirements, Administrative TSs, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

These inspection activities constituted four partial system walkdown samples as defined in Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

On May 20, 2008, the inspectors performed a complete system alignment inspection of the Control Rod Drive Hydraulic system to verify the functional capability of the system. This system was selected because it was considered both safety-significant and risk-significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding work orders was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the corrective action program database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment.

These inspection activities constituted one complete system walkdown sample as defined in Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Area Fire Plan (AFP) 01, Reactor Building Torus Area and North Corner Rooms, Elevation 716'-9" and 735'-7 1/2";
- AFP 02, Reactor Building South Corner Rooms, Elevation 716'-4" through 747'-11 3/4";
- AFP 07, Reactor Building Laydown Area, Corridor and Waste Tank Area and Spent Resin Tank Room, Elevation 786'-0";
- AFP 09, Reactor Building RBCCW [Reactor Building Closed-Loop Cooling Water] Heat Exchanger Area, Equipment Hatch Area, and Jungle Room, Elevation 812'-0";
- AFP 21, Turbine Building North Turbine Operating, Middle Operating Floor, Elevation 780'-0"; and
- AFP 22, Turbine Building South Turbine Operating Floor, DEMIN Pits, Elevation 780'-0".

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and had implemented adequate compensatory measures for OOS, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the Attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program.

These inspection activities constituted six quarterly fire protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings of significance were identified.

1R06 Flood Protection (71111.06)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and AOPs to identify licensee commitments. The specific documents reviewed are listed in the Attachment. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the corrective action program to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the plant areas identified below to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments.

- Turbine Building Basement and Northwest Corner Room.

These inspection activities constituted one internal flooding sample as defined in Inspection Procedure 71111.06-05.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

.1 Annual Heat Sink Performance Review

a. Inspection Scope

The inspectors observed the licensee's performance testing of the 'B' SBDG ESW heat exchangers following planned maintenance activities which replaced all three tube bundles this quarter. The inspectors verified that the as left conditions did not potentially mask the licensee's ability to detect degraded performance, or to identify any common cause issues that had the potential to increase risk, and ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of proposed scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions.

This inspection activity constituted one annual review sample as defined in Inspection Procedure 71111.07-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On April 30 and May 7, 2008, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification examinations to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- Licensed operator performance;
- Crew's clarity and formality of communications;
- Ability to take timely actions in the conservative direction;
- Prioritization, interpretation, and verification of annunciator alarms;
- Correct use and implementation of abnormal and emergency procedures;
- Control board manipulations;
- Oversight and direction from supervisors; and
- Ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements.

This inspection activity constituted one quarterly licensed operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant system:

- High Pressure Coolant Injection (HPCI).

The inspectors independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices;
- Identifying and addressing common cause failures;
- Scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- Characterizing system reliability issues for performance;
- Charging unavailability for performance;
- Trending key parameters for condition monitoring;
- Ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- Verifying appropriate performance criteria for structures, systems, and components/functions classified as (a)(2) or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

These inspection activities constituted one quarterly maintenance effectiveness sample as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- 'B' SBDG Heat Exchanger Tube Bundle Replacements During Work Week 9819;
- 1X001 Main Transformer Emergent Issue During Work Week 9822;
- Emergent Switchyard Work with Severe Weather During Work Week 9823;
- Flooding and Grid Stability Issues During Work Week 9825; and
- Failure of the 1D62 24 Vdc Battery Charger During Work Week 9826.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and

walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

These inspection activities constituted five samples as defined by Inspection Procedure 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- 'B' ESW System Following Repairs to Emergency Diesel Generator (EDG) Cooling Return Line Expansion Bellows;
- 'A' CBC Operability Following Vendor Repairs to the Temperature Control Valve TCV 6924A and Failure of the Hot Gas Capacity Control Circuit;
- HPCI and Reactor Core Isolation Cooling (RCIC) System Operability with Control Valve Operator Failures on Isolation Valves from the System's Barometric Condensers to the Radwaste System; and
- 'B' SBDG Operability with a Failure of a Lube Oil Heater Control Circuit Which Resulted in a High Lube Oil Temperature Condition with the SBDG in a Standby Readiness Condition.

The inspectors selected these potential operability issues based on the risk-significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and UFSAR to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment.

These inspection activities constituted four samples as defined in Inspection Procedure 71111.15-05.

b. Findings

No findings of significance were identified.

.2 (Discussed) Unresolved Item (URI) 05000331/2005002-02: Failure to Include the Analysis of Thermal Movements in Piping

a. Inspection Scope

An inspection of the licensee's corrective actions pertaining to URI 05000331/2005002-02 was initiated and included an in-office review of licensee calculations pertaining to the effect of drywell movement at piping penetrations during design basis accident conditions. The licensee's evaluation and resolution of inspector issues identified during the inspection have not been completed.

Note: The licensee has completed modifications such that the affected piping systems and drywell penetrations meet design basis stress limits. The calculation reviews were performed to demonstrate that the affected piping and drywell penetrations would have been functional during a design basis accident prior to installation of the modifications. The results of the reviewed calculations do not impact current operation of the plant.

This inspector's review of activities related to URI 05000331/2005002-02 will be continued into the next quarter's inspection and did not count as a sample as defined in Inspection Procedure 71111.15-05.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following post-maintenance testing (PMT) activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Post-Maintenance Run of the 'A' CBC;
- Post-Maintenance Run of the 'B' SBDG;
- Repair of the 'A' ESW Bellows Flexible Connection;
- PMT for the 120 Volt Instrument AC Power Supply, 1D25 Inverter; and
- Post-Maintenance Run of the 'A' Fuel Pool Cooling Pump.

These activities were selected based upon the structures, systems, and components ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion), and test documentation was properly evaluated. The inspectors evaluated the activities against TS, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design

requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment.

These inspection activities constituted five samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 Routine Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- Surveillance Testing Procedure (STP) 3.8.1-03, Standby Diesel Generators Operability Test;
- STP NS540002, Emergency Service Water Operability Test; and
- STP 3.4.6-01, Reactor Coolant Iodine Activity.

The inspectors observed in-plant activities and reviewed procedures and associated records to determine whether: any preconditioning occurred; effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; as left setpoints were within required ranges; the calibration frequency was in accordance with TS, the UFSAR, procedures, and applicable commitments; measuring and test equipment calibration was current; test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used; test data and results were accurate, complete, within limits, and valid; test equipment was removed after testing; where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable; where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure; where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished; prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test; equipment was returned to a position

or status required to support the performance of the safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the corrective action program. Documents reviewed are listed in the Attachment.

These inspection activities constituted three routine surveillance testing samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings of significance were identified.

.2 Inservice Testing Surveillance

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- STP 3.5.3-02; RCIC System Operability Test; and
- STP 3.1.7-01, SBLC [Standby Liquid Control] Pump Operability Test.

The inspectors observed activities and reviewed procedures and associated records to determine whether: any preconditioning occurred; effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; as left setpoints were within required ranges; and the calibration frequency were in accordance with TSs, the UFSAR, procedures, and applicable commitments; measuring and test equipment calibration was current; test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used; test data and results were accurate, complete, within limits, and valid; test equipment was removed after testing; where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers Code, and reference values were consistent with the system design basis; where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable; where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure; where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished; prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test; equipment was returned to a position or status required to support the performance of its safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the corrective action program. Documents reviewed are listed in the Attachment.

These inspection activities constituted two inservice inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a licensee's full scale training emergency drill on May 21, 2008, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the training simulator control room and the technical support center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment.

This inspection constituted one sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous And Liquid Effluent Treatment And Monitoring Systems (71122.01)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed the most current gaseous and liquid effluent processing systems to confirm that radiological discharges were properly mitigated, monitored, and evaluated with respect to public exposure. The inspectors reviewed the licensee performance requirements that were found in General Design Criteria 60 and 64 of Appendix A to 10 CFR Part 50, Radiological Effluent Technical Specifications (RETS), and the Offsite Dose Assessment Manual (ODAM). The inspectors also reviewed any abnormal radioactive gaseous or liquid discharges and conditions since the last inspection when effluent radiation monitors were OOS. In addition, the inspectors

reviewed the licensee's quality control program to verify that the radioactive effluent sampling and analysis requirements were satisfied and that discharges of radioactive materials were adequately quantified and evaluated.

The inspectors verified that each of the Radiological Effluent Controls Program requirements were being implemented as described in RETS. For each system modification, the inspectors reviewed changes to the liquid or gaseous radioactive waste system design, procedures, or operation as described in the UFSAR and plant procedures, and verified that any changes made to the liquid or gaseous waste systems were effective and maintained effluent releases As-Low-As-Is-Reasonably-Achievable.

The inspectors reviewed changes to the ODAM made by the licensee since the last inspection to ensure consistency was maintained with respect to guidance in NUREG-1301, 1302 and 0133, and Regulatory Guides 1.109, 1.21 and 4.1. If differences were identified, the inspectors reviewed the technical basis or evaluations of the change to ensure changes were technically justified and documented.

For effluent monitoring instrumentation, the inspectors reviewed documentation to verify the adequacy of methods and monitoring of effluents. The inspectors also evaluated any changes to effluent radiation monitor set-points. The inspectors evaluated the calculation methodology and the basis for the changes, thus ensuring an adequate justification.

The inspectors reviewed the licensee's program for identifying, assessing and controlling contaminated spills and leaks. The inspectors also reviewed new effluent discharge pathways (such as significant continuing leakage to ground water that continues to impact the environment if not remediated) to ensure the ODAM was updated to include the new pathway. The inspectors reviewed the Radiological Effluent Release Report for 2007 in order to determine if anomalous or unexpected results were identified by the licensee, entered in the corrective action program, and adequately resolved.

The inspectors reviewed any significant changes in reported dose values from the previous Radiological Effluent Release Report, and the inspectors evaluated the factors which may have resulted in the change. If the change was not explained as being influenced by an operational issue (e.g., fuel integrity, extended outage, or major decontamination efforts), the inspectors independently assessed the licensee's offsite dose calculations.

The inspectors reviewed the plant's correlation between the effluent release reports and the environmental monitoring results per Section IV.B.2 of Appendix I to 10 CFR Part 50.

In addition, the inspectors reviewed the results from audits and determined whether the licensee met the requirements of the RETS/ODAM.

This inspection constituted one inspection planning sample as defined in Inspection Procedure 71122.01.

b. Findings

No findings of significance were identified.

.2 Onsite Inspection

a. Inspection Scope

The inspectors performed a walkdown of selected components of the gaseous and liquid discharge systems (e.g., gas compressors, demineralizers and filters in use or standby, tanks, and vessels) and reviewed current system configuration with respect to the description in the UFSAR. The inspectors evaluated temporary waste processing activities, system modifications and the equipment material condition. For equipment or areas that were not readily accessible, the inspectors reviewed the licensee's material condition surveillance records as applicable.

During the walkdown, the inspectors assessed the operability of selected point of discharge effluent radiation monitoring systems and flow measurement devices. The effluent radiation monitor alarm set point values were reviewed for agreement with RETS/ODAM requirements.

The inspectors observed the gaseous sampling of waste processing and observed selected portions of the routine processing and discharge of radioactive gaseous effluent. The inspectors verified that appropriate treatment equipment was used and that the radioactive gaseous effluent was processed and discharged in accordance with RETS/ODAM requirements, including the projected doses to members of the public.

The inspectors assessed the liquid waste processing system; however, the licensee was not processing liquid waste during the inspection.

The inspectors evaluated if appropriate effluent treatment equipment was being used and if radioactive liquid waste was being processed in accordance with procedure requirements. The inspectors also interviewed staff concerning effluent discharges made with inoperable (declared out-of-service) effluent radiation monitors and determined if appropriate compensatory sampling and radiological analyses were being conducted at the required frequency specified in the RETS/ODAM. For compensatory sampling methods, the inspectors verified that representative samples were being obtained and that the licensee did not routinely rely on the use of compensatory sampling in lieu of adequate system maintenance or calibration of effluent monitors.

The inspectors reviewed surveillance test results for non-safety-related ventilation and gaseous discharge systems (high efficiency particulate air (HEPA) and charcoal filtration) to ensure that the system was operating within acceptance criteria. In addition, the inspectors assessed the methodology the licensee uses to determine the stack/vent flow rates and verified that the flow rates were consistent with ODAM values.

The inspectors assessed how the licensee identified any normally non-radioactive systems that may have become contaminated and ensured that 10 CFR 50.59 evaluations were performed per IE Bulletin 80-10. The inspectors did not identify unidentified contaminated systems that may have been unmonitored discharge pathways to the environment.

The inspectors also reviewed instrument maintenance and calibration records (i.e., both installed and counting room equipment) associated with effluent monitoring and

reviewed quality control records for the radiation measurement instruments. The inspectors did not identify degraded instrument performance during the inspection.

The inspectors verified the radionuclides that were included in the source term to ensure that all applicable radionuclides were included, within detectability standards, in the licensee evaluation of effluent. The inspectors reviewed Part 61 analyses to ensure that hard-to-detect radionuclides were also included in the source term analysis for the year 2007.

The inspectors reviewed the meteorological dispersion and deposition factors and hydrogeologic characteristics used in the licensee's ODAM and effluent dose calculations to verify that appropriate factors were being used for public dose calculations. This also included a review the land-use census for any new public dose receptors or pathways.

The inspectors reviewed the annual dose calculations to ensure that the licensee had properly demonstrated compliance with 10 CFR Part 50, Appendix I, and TSs dose criteria.

The inspectors also reviewed and assessed the licensee's implementation of the voluntary Nuclear Energy Institute (NEI)/Industry Ground Water Protection Initiative (GPI). The inspectors reviewed changes made to the GPI, monitoring results of the GPI, identified leakage or spill events and entries made into 10 CFR 50.75(g) records, and evaluations of leaks or spills including any remediation actions taken for effectiveness. There were no abnormal effluent discharges since the last radioactive gaseous and liquid effluents monitoring inspection in 2006. To date, the licensee records did not indicate any abnormal gaseous or liquid tank discharges (e.g., discharges resulting from misaligned valves, valve leak-by, etc).

The inspectors reviewed onsite contamination events involving contamination of ground water and assessed whether the source of the leak or spill was identified and mitigated. Since the last inspection in 2006, there were no unmonitored spills, leaks, or unexpected radioactive liquid or gaseous discharges. The inspectors verified that significant leaks and spills were properly documented in the site's corrective action program and/or in the decommissioning file, per 10 CFR 50.75 (g).

The inspectors verified whether sufficient radiological surveys were performed to evaluate the extent of the contamination and the radiological source term, and the inspectors reviewed survey/evaluation records that include consideration of hard-to-detect radionuclides.

The inspectors assessed the licensee program to evaluate and analyze any new or additional effluent discharge pathways as a result of a spill, leak, abnormal, or unexpected liquid discharge or gaseous discharges. The inspectors reviewed whether the licensee monitors groundwater discharges and verified that significant leaks and spills were properly documented. The inspectors evaluated if the licensee's program included provisions for required or voluntary offsite notifications to the State and local government if appropriate, the NRC.

The inspectors assessed the licensee's evaluations of discharges from onsite surface water bodies (ponds, retention basins, lakes) that contain or potentially contain

radioactivity and the potential for ground water leakage from these onsite surface water bodies. The inspectors evaluated if the licensee was properly accounting for discharges from these surface water bodies as part of their effluent release reports and reviewed routine groundwater monitoring results to assess whether the licensee was monitoring for unknown leakage. The inspectors verified that the licensee sufficiently evaluated monitoring results, properly documented and reported the results, entered any abnormal results into its corrective action program, and implemented adequate corrective actions. Additionally, the inspectors reviewed the licensee's self-assessments, audits, and event reports that involved unanticipated offsite discharges of radioactive material.

The inspectors reviewed the results of the inter-laboratory comparison program to verify the quality of radioactive effluent sample analyses. The inspectors verified that the licensee maintained adequate effluent sampling records (sampling locations, sample analyses results, flow rates, and source term for radioactive liquid and gaseous effluent, (i.e., information needed to satisfy the requirements of 10 CFR 20.1501)).

This inspection constituted one sample as defined in Inspection Procedure 71122.01.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed the licensee's self assessments, audits, Licensee Event Reports, and Special Reports related to the radioactive effluent treatment and monitoring program since the last inspection to determine if identified problems were entered into the corrective action program for resolution. The inspectors also verified that the licensee's self-assessment program was capable of identifying repetitive deficiencies or significant individual deficiencies in problem identification and resolution.

The inspectors also reviewed corrective action reports from the radioactive effluent treatment and monitoring program since the previous inspection, interviewed staff and reviewed documents to determine if the following activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk:

- Initial problem identification, characterization, and tracking;
- Disposition of operability/reportability issues;
- Evaluation of safety significance/risk and priority for resolution;
- Identification of repetitive problems;
- Identification of contributing causes;
- Identification and implementation of effective corrective actions;
- Resolution of NCVs tracked in the corrective action system;
- Implementation/consideration of risk-significant operational experience feedback; and
- Ensuring problems were identified, characterized, prioritized, entered into the corrective action system, and resolved.

This inspection constituted one identification and resolution of problems sample as defined in Inspection Procedure 71122.01.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the first Quarter 2008 performance indicators (PIs) for any obvious inconsistencies prior to its public release in accordance with IMC 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

Cornerstone: Barrier Integrity

.2 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system (RCS) specific activity PI for the period from the second quarter 2007 through first quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's RCS chemistry samples, TS requirements, corrective action program documents, event reports and NRC Integrated Inspection reports for the period of April 2007 through March 2008 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's corrective action program database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze an RCS sample. Specific documents reviewed are described in the Attachment to this report.

These inspection activities constituted one RCS specific activity sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.3 Reactor Coolant System Leakage

a. Inspection Scope

The inspectors sampled licensee submittals for the RCS Leakage PI for the period from the second quarter 2007 through the first quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's operator logs, RCS leakage tracking data, corrective action program documents, event reports and NRC Integrated Inspection reports for the period of April 2007 through March 2008 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's corrective action program database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the Attachment to this report.

These inspection activities constituted one RCS leakage sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

.4 Radiological Effluent TS/Offsite Dose Calculation Manual Radiological Effluent Occurrences

a. Inspection Scope

The Inspectors sampled the licensee's PI submittals for the period indicated below. The inspectors used PI definitions and guidance contained in Revision 5 of NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," to verify the accuracy of the PI data. The inspectors reviewed data associated with the RETS/ODCM PI to determine if the indicator was accurately assessed and reported. The inspectors reviewed the licensee's corrective action program database and individual corrective action process (CAP) documents generated in 2007 to identify any potential occurrences such as unmonitored, uncontrolled or improperly calculated effluent releases that may have impacted offsite dose. The inspectors also reviewed gaseous and liquid effluent summary data and the results of associated offsite dose calculations for the four quarters in 2007 to determine if indicator results were accurately reported. The inspectors also discussed with the licensee the methods for quantifying gaseous and liquid effluents and for determining effluent dose.

These reviews constituted one sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Items Entered Into the Corrective Action Program

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: the complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's corrective action program as a result of the inspectors' observations are included in the Attachment.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector corrective action program item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six month period of January 1, 2008 through June 30, 2008, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal corrective action program in major equipment problem lists, repetitive and/or reworks maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's corrective action program trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This review constituted a single semi-annual trend inspection sample.

b. Findings

No findings of significance were identified.

.4 Selected Issue Follow-up Inspection: Performance Issues Observed During an Extended Maintenance Window for the 'B' SBDG

a. Inspection Scope

During observation of PMT being performed on the 'B' SBDG, the inspectors observed two unexpected failures of support equipment: a leak in the ESW discharge expansion bellows and an unexpected trip of the 'B' SBDG. The inspectors observed site personnel's troubleshooting efforts to identify and correct the equipment issues.

Site personnel generated CAPs for each of the performance issues and an Apparent Cause Evaluation (ACE) was performed for each issue. The inspectors reviewed each of the ACEs, comparing them to DAEC's ACE Manual. Corrective actions associated with each of the issues were reviewed for adequacy. The inspectors did not identify any discrepancies. The documents reviewed during this inspection activity are listed in the Attachment.

The above constituted completion of one in-depth problem identification and resolution sample.

b. Findings

No findings of significance were identified.

40A3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 Notice of Unusual Event Declaration for Loss of Offsite Communications Capability Due to River Flooding

a. Inspection Scope

The inspectors reviewed the plant's response for a Notice of Unusual Event declaration for a Loss of Offsite Communication Capabilities due to flooded river conditions on June 2, 2008. Documents reviewed in this inspection are listed in the Attachment.

This inspection constituted one sample as defined in Inspection Procedure 71153-05.

b. Findings

No findings of significance were identified.

40A5 Other Activities

.1 Institute of Nuclear Power Operations (INPO) Plant Assessment Report Review

a. Inspection Scope

The inspectors reviewed the final report for the INPO plant assessment conducted in November 2007. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC perspectives of licensee performance and to verify that there were not any significant safety issues identified that would require further NRC follow-up.

.2 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

40A6 Management Meetings

.1 Exit Meeting Summary

On July 10, 2008, the inspectors presented the inspection results to Mr. R. Anderson, Site Vice President, and other members of the licensee staff. The licensee

acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- Radioactive gaseous and liquid effluent treatment monitoring system under the public radiation safety cornerstone with Mr. R. Anderson, Site Vice President, and with Mr. D. Curtland, Plant General Manager, on April 4, 2008.

40A7 Licensee-Identified Violations

None

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. Anderson, Site Vice President
D. Curtland, Plant Manager
B. Eckes, NOS Manager
S. Catron, Licensing Manager
J. Cadogan, Engineering Director
B. Kindred, Security Manager
J. Morris, Training Manager
C. Dieckmann, Operations Manager
G. Rushworth, Assistant Operations Manager
R. Harter, Operations Support Manager
G. Pry, Maintenance Manager
J. Windschill, Chemistry & Radiation Protection Manager
M. Davis, Emergency Preparedness Manager
G. Ellis, Program Owner, Fire Protection
M. Lingenfelter, Design Engineering Manager
S. Huebsch, System Engineering Supervisor
J. Swales, Design Engineering Supervisor
K. Kleinheinz, Program Engineering Manager
J. Kuehl, Program Engineering Supervisor
D. Albrecht, Radwaste Supervisor
G. Park, ISI Program Owner
F. Dohmen, NDE Level III
B. Klotz, Program Engineering Supervisor
J. Probst, Site Maintenance Rule Coordinator
N. McKenney, General Supervisor Radiation Protection Support
S. Funk, CHP, REMP Program Manager, Sr. Health Physics Coordinator
D. Johnson, Radwaste Operator/Chem Tech, Rad Environmental Technician
R. Porter, General Supervisor Radiation Protection

Nuclear Regulatory Commission

K. Feintuck, Project Manager, NRR
K. Riemer, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

None

Discussed

05000331/2005002-02	URI	Failure to Include the Analysis of Thermal Movements in Piping (Section 1R15.2)
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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 or 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.

1R01 Adverse Weather Protection

CAP 055240; Non Condition Adverse to Quality (NCAQ) – Grid Operating Agreement Needs to Be Revised
CAP 056849; NCAQ – Delay Filling 1VPCC001A Plant H&V Cooling Coil
CAP 057082; NCAQ – Ineffective Corrective Actions for Tornado Hazards
CAP 057087; Condition Adverse to Quality (CAQ) – Unable to Determine Position of V29-0032
CAP 057096; CAQ – INPO TSG [Transformer, Switchyard, and Grid] Review-Ops Coordination and Communication with ATC [American Transmission Company]
CAP 057098; NCAQ – Mechanical Maintenance Resources to Support Rescheduling of IPOI [Integrated Plant Operating Procedure] 6
CAP 057099; CAQ – INPO TSG Review-Switchyard Control House A/C Unit Restoration
CAP 057100; CAQ – INPO TSG Review-Switchyard Coordinator Roles and Responsibilities
CAP 057210; NCAQ – River Projected to Reach 748 Feet
CAP 057216; NCAQ – AOP 902 Flood Entered
CAP 057366; NCAQ – 1E064B Iso Phase Bus Cooler Performance
CAP 057430; NCAQ – Improvements to Main Intake Coil Procedure
CAP 057432; CAQ – Inadequate Supplemental Cooling for ‘A’ Phase Main Transformer
CAP 057584; NCAQ – Summer and Fall Set Up of ‘A’ and ‘B’ Chillers 1VCH001A/B IPOI 6
Administrative Control Procedure (ACP) 101.16; Midwest ISO Real-Time Operations: Communication and Mitigation Protocols for Nuclear Plant/Electrical System Interfaces; Revision 2
ACP 110.6; Seasonal Readiness; Revision 2
AOP 304; Grid Instability; Revision 16
AOP 410; Loss of River Water Supply; Revision 19
AOP 902; Flood; Revision 28
AOP 902; Flood; Revision 29
IPOI 6; Weather Impacted Operations; Revision 45
GMP-ELEC-30; Installation of Temporary Power to Intake Structure Load Centers 1B09 and 1B20; Revision 0
L-2006-073; Florida Power and Light Company letter, RE: NRC Generic Letter 2006-02 60-Day Response, Attachment 4 (DAEC Response; April 3, 2006)
Individual Plant Examination; Section 3.3.6, Internal Flooding Analysis; November 1992
Preventative Work Order (PWO) 1142133; Convert to Summer Mode and Inspect and Clean the External Cooling Coils; April 5, 2008
PWO 1142149; Semi-Annual Spring Inspection on 1VCH001A, ‘A’ CBC; April 15, 2008
PWO 1142153; Semi-Annual Spring Inspection on 1VCH001B, ‘B’ CBC; April 27, 2008

1R04 Equipment Alignment

CAP 050230; Incorrect Clearance Hanging Instructions Would Have Led to Valve Mispositioning
CAP 052954; CAQ – “A” SBDG Governor Droop Setting at “MAX” Instead of “Zero”
CAP 057150; CAQ – TLC6924A CB Chiller Temperature Load Controller
CAP 057435; CAQ – EDG Scavenging Air to Lube Oil Heat Exchanger Bolting Thread Engagement
CAP 057443; CAQ – Instrument Isolation Valve Found Out of Position During Valve Lineup
CAP 057489; NCAQ – CNO Indicator for Component Mispo. (J-7) was not correct for April ‘08
Drawing M133<1>; Fire Protection Yard Loop; Revision 29
Drawing M122<2>; Fire Protection; Revision 17
Drawing M117; Control Rod Drive Hydraulic System; Revision 60
Drawing M118; Control Rod Drive Hydraulic System; Revision 25
Operating Instruction (OI) 255A1; Control Rod Drive System Electrical Lineup; Revision 3
OI 255A2; Control Rod Drive System Valve Lineup and Checklist; Revision 4
OI 255A3; Control Rod Drive System HCU [Hydraulic Control Unit] Valve Lineup and Checklist; Revision 1
OI 324A4; SBDG 1G-21 System Valve Lineup and Checklist; Revision 11
OI 324A8; SBDG 1G-21 System Control Panel Lineup; Revision 2
OI 324A9; SBDG Operating Checklist; Revision 8
OI 324A10; SBDG Standby/Readiness Condition Checklist; Revision 7
OI 454A2; ‘A’ ESW System Valve Lineup and Checklist; Revision 9
OI 454A6; ESW System Control Panel Lineup; Revision 2
OI 454A1; ESW System electrical Lineup; Revision 2
OI 454A2; ‘A’ ESW System Valve Lineup and Checklist; Revision 9
OI 513A1; Fire Protection System Electrical Lineup; Revision 7
OI 513A2; Fire Protection System Valve Lineup; Revision 14
OI 730A1; Control Building HVAC [Heating, Ventilation, and Air Conditioning] System Electrical Lineup; Revision 2
OI 730A2; Control Building Ventilation Compressed Air System Valve Lineup; Revision 4
OI 730A3; Control Building Ventilation System Valve Lineup; Revision 7
OI 730A6; Control Building HVAC System Control Panel Lineup; Revision 9
STP 3.7.5-02; Two (2) Control Building Chillers Inoperable; Revision 0
UFSAR Section 4.6 Functional Design of Reactivity Control Systems; Revision 19
TS Bases 3.1 Reactivity Control Systems; April 18, 2008
Control Rod Drive System Health Report; May 1, 2008
Open Work Order Report for Control Rod Drive System; May 20, 2008

1R05 Fire Protection (Annual/Quarterly)

ACP 1412.2; Control of Combustibles; Revision 33
ACP 1412.3; Control of Ignition Sources; Revision 20
AFP 01; Reactor Building Torus Area and North Corner Rooms; Revision 24
AFP 02; Reactor Building South Corner Rooms; Revision 23
AFP 07; Reactor Building Laydown Area, Corridor and Waste Tank Area, and Spent Resin Tank Room; Revision 28
AFP 09; Reactor Building RBCCW Heat Exchanger Area, Equipment Hatch Area and Jungle Room; Revision 27
AFP 20; Turbine Building Aux Boiler Room Emergency Diesel Generator Rooms, and Generator Day Tank Room; Revision 29
AFP 21; Turbine Building North Turbine Operating Floor; Revision 24

1R06 Flood Protection Measures

Drawing M137 <1>; Radwaste Sump System; Revision 33
Drawing M137 <2>; Radwaste Sump System; Revision 16
Drawing E125 <025>; Reactor Building Water Level Indication; Revision 2
Emergency Operating Procedure 3; Secondary Containment Control Guideline; Revision 10
DAEC Individual Plant Examination; Section 3.3.6 Internal Flooding Analysis; November 1992

1R07 Heat Sink Performance

CAP 057404; CAQ – Very Small Pitting of the Flange Sealing Face of 1E053B3 (1G-21 Jacket Cooling Water)
CAP 057408; CAQ – Scratch on the New Tube on the Lube Oil Tube Bundle
CAP 057412; CAQ – Small Corroded Areas on 1G021 Jacket Cooling Water Hx [Heat Exchanger] Packing Gland Area
Condition Evaluation (CE) 006396; Small Corroded Areas on 1G021 Jacket Cooling Water Hx [Heat Exchanger] Packing Gland Area
CAP 057423; CAQ – Water Entered the ‘B’ SBDG LO Cooler During the Pressure Test
DAEC Heat Exchanger Program; Revision 1
Heat Exchanger Thermal Performance and Trending Program; Equipment Monitoring Manual; Revision 7
Calculation CAL-M05-027; Emergency Diesel Generator Heat Exchanger Heat Transfer Calculation; Revision 3

1R11 Licensed Operator Regualification Program

ESG 66; Simulator Guideline Training Scenario; Revision 0
ACP 110.1; Conduct of Operations; Revision 14
IPOI 5; Reactor Scram; Revision 49
Emergency Action Level (EAL)-01; Emergency Action Level Matrix; Revision 7

1R12 Maintenance Effectiveness

CAP 056000; CAQ – Perform Pro-Active MR Evaluation for March 2008 HPCI Planned LCO [Limiting Condition for Operation]
DAEC Maintenance Rule Program Module 0; Overview; Revision 3
DAEC Maintenance Rule Program Module 2; Risk-Significance Determination; Revision 2
DAEC Maintenance Rule Availability Criteria; Revision 0
DAEC Performance Criteria Basis Document for High Pressure Coolant Injection (SUS 52.00); Revision 3
DAEC System Checklist/Health Report for SUS 52.00: High Pressure Coolant Injection; dated April 1, 2008
Open Work Order Report for HPCI System; dated April 3, 2008
System Monitoring and Reporting Tool System Report; dated April 7, 2008

1R13 Maintenance Risk Assessments and Emergent Work Control

CAP 057395; CAQ – STP 3.3.8.1-01B 4kv Degraded Voltage Functional Test Not Performed Per Schedule
CAP 057453; NCAQ – Two Different Risk Evaluations for the Same STP

CAP 057454; CAQ – Pre-planned Risk Assessment may not be Applicable for Changing Plant Conditions

CAP 057492; CAQ – Error Found in Technical Requirements Manual basis Document

CAP 057519; NCAQ – Protected Equipment Work Approval for ‘B’ SBDG Run per OI-324

CAP 058097; CAQ – 1X001 Main Transformer Hot Connection

CAP 058501; CAQ – 1D62 Division 2 Battery 1D6 24 volt DC [Direct Current] Charger

PWO 1128149; Replace AC Input Caps (C20) and Filter Circuit Caps (C1)

DAEC On-line Schedule for Work Week 9819

Maintenance Risk Evaluations for Work Week 9819; Revision 0 and Revision 1

DAEC On-line Schedule for Work Week 9822

Maintenance Risk Evaluations for Work Week 9822; Revisions 0 and Revision 1

DAEC On-line Schedule for Work Week 9823

Maintenance Risk Evaluations for Work Week 9823; Revision 0 and Revision 1

DAEC On-line Schedule for Work Week 9825

Maintenance Risk Evaluations for Work Week 9825; Revisions 0 through Revision 3

DAEC On-line Schedule for Work Week 9826

Maintenance Risk Evaluations for Work Week 9826; Revisions 0 through Revision 2

1R15 Operability Evaluations

CAP 054384; CAQ – Valve Operator Fell Off of CV2436 RCIC Condenser Pump Discharge Operability Recommendation (OPR) 000373; Operator Fell Off of CV2436 RCIC Condenser Pump Discharge

CAP 054422; CAQ – CV2235 Operator Snap Ring Engagement

OPR 000374; CAQ – CV2235 Operator Snap Ring Engagement

CAP 057465; CAQ – 1E053B3 Expansion Bellows Leaking

CAP 057575; CAQ – Unplanned LCO ‘A’ Chiller Trouble Alarm on 1C026A

CAP 057579; CAQ – 1VCH001B Readings Out of Spec

CAP 057653; NCAQ – Control Building HVAC Operation with Both Chillers Inoperable

CAP 057667; CAQ – TCV6924A Inoperable

CAP 057730; CAQ – Hot Gas Capacity Control Does Not Function on the ‘A’ Chiller, 1VCH001A

CAP 057879; CAQ - 1VCH001B, Control Building Chiller, Trip; Unplanned LCO

CAP 057899; CAQ – TCV6935B Valve Body’s Seat Ring Threads Worn

OPR 000379; CAQ – Hot Gas Capacity Control Does Not Function on the ‘A’ Chiller, 1VCH001A

CAP 058355; CAQ – 1G-21 ‘B’ SBDG Lube Oil Temperature High Out of Specification

OPR 000380; 1G-21 ‘B’ SBDG Lube Oil Temperature High Out of Specification

09-600-B; 6 Inch Conv. Coupling; Revision 0

D2008-004; Commercial Grade Dedication/Upgrade Evaluation for Expansion Bellows for EDG; Revision 1

EMA A84042; EDG Heat Exchanger Inlet/Outlet Expansion Joint; Revision 0

DAEC-SC-PEG-04; DAEC Dedication and Upgrade of Commercial Grade Items; Revision 3

DAEC Engineering Department Operable But Degraded/Non-Conforming Conditions Listing; dated May 20, 2008

COC 08P2780; Certificate of Conformance for Metal Bellows Expansion Joint

1R19 Post-Maintenance Testing

CAP 056210; NCAQ – Perform Pro-Active MR Eval for April/May 2008 EDG Planned LCOs

CAP 057012; CAQ – CV1956A Did Not Open When ESW Was Started for PMT on MO2077

CAP 057015; CAQ – CV1956A Was Failed Open and MO2077 Closed to Establish Seismic Boundary
CAP 057016; NCAQ – Contingency for CV1956A Was Discussed But Not Planned
CAP 057039; CAQ – TCV6924A Failed Post-Maintenance Testing
CAP 057070; CAQ – TCV6924A-O, Hydraulic Pump Motor Stalled During Initial Maintenance Run
CAP 057411; CAQ – Wire of Sensing Tubing for 1G21 Engine for Lube for PS3241B and PI3254B
CAP 057414; CAQ – Tubing Clamp on A SBDG 1G031
CAP 057423; CAQ – Water Entered the ‘B’ SBDG Lube Oil Cooler During the Pressure Test
CAP 055428; CAQ – B SBDG Lube Oil Temperature Low Out of Spec per Aux Logs
CAP 057434; CAQ – Oil samples Water Content Greater than 0.2% A SBDG 1G021
Alarm Response Procedure 1C94; Annunciator Response Procedure Panel 1C94, Diesel Generator 1G21; Revision 37
OI 324A9; SBDG Operating Checklist; Revision 8
OI 324A10; SBDG Standby/Readiness Condition Checklist; Revision 7
STP 3.8.1-05; Standby Diesel Generators Operability Test (Slow Start From Emer Start Air); Revision 34
STP 3.7.5-01; Control Building Chiller Operability; Revision 13
Corrective Work Order (CWO) A84042; Replace the Expansion Joint on the Outlet of 1E053B3
CWO A78814; Replace Piping and Elbow Between 1G021/OH and V32-0203
CWO A83069; Replace Tubing, Listed Below, in Support of Extent of Condition Investigation for Lube Oil Tubing Failure Documented in CAP 055329
PWO 1142188; Change Oil in 1P214A, ‘A’ Fuel Pool Cooling Pump
CWO A83656; Replace Oil Pump on TCV6924A Hydraulic Operator
CWO A83468; Perform Troubleshooting Instruction Form for TLC6924A
CWO A67788; Replace Copper Tubing at the Load/Unload Valves on ‘A’ CB Chiller Compressor with Stainless Steel
CWO A76381; Inspect/Repair or Replace Potentiometer on TCV6924A
CWO A78123; Replace Actuator Stem Seal on TCV6924A-O
PWO 1136682; Replace Oil Filled Capacitors on 1D25
CWO A75183; Replace Front Right Most Fan on 1D25 Enclosure
PWO 1140145; Perform Calibration Procedure on Elgar Inverter 1D25

1R22 Surveillance Testing

CAP 058142; CAQ – “A” SBLC Pump Momentary Pressure Drop and Increase Noise during STP 3.7.1-01
CAP 058143; CAQ – STP 3.7.1-01 Steps Incorrect Almost Causes Test Tank Overflow
OI 324A10; SBDG Standby/Readiness Condition Checklist; Revision 7
STP NS500001; RCIC System Leakage Inspection Walkdown; Revision 4
STP 3.5.3-02; RCIC System Operability Test; Revision 24
STP 3.1.7-01; SBLC Pump Operability Test; Revision 23
STP 3.8.1-03; Standby Diesel Generators Operability Test; Revision 15
TS Bases 3.1.7 Standby Liquid Control System; April 18, 2008
UFSAR Section 9.34 Standby Liquid Control System; Revision 19
Surveillance Work Order S014334; Perform STP NS540002 Emergency Service Water Operability Test for ‘B’ Division to Verify Operability of System Pump and Motor Operated Valves
STP NS540002; Emergency Service Water Operability Test; Revision 33
Surveillance Work Order S012358; Perform STP 3.4.6-01 Reactor Coolant Iodine Activity

STP 3.4.6-01; Reactor Coolant Iodine Activity; Revision 4
ACP 1407.5; Surveillance Testing Program; Revision 26
Plant Chemistry Procedure (PCP) 2.1; Plant Chemistry Sampling Program Guidelines; Revision 13
PCP 2.13; Reactor Water Sampling; Revision 17
PCP 6.10; Reactor Coolant Iodine and CRUD Activity; Revision 9

1EP6 Drill Evaluation

Emergency Plan Implementing Procedure (EPIP) 1.1; Determination of Emergency Action Levels; Revision 27
EPIP 1.2; Notifications; Revision 39
EAL-01; Emergency Action Level Matrix - Modes 1, 2, 3; Revision 7
EAL-02; Emergency Action Level Matrix - Modes 4, 5; Revision 6
EPIP 6.1; Drill and Exercise Program; Revision 0
Emergency Planning Department Manual (EPDM) 1008; Emergency Response Drill and Exercise Program; Revision 12
EPDM 1010; Emergency Planning Department Performance Indicators; Revision 10
EPDM 1015; Scenario Development Program; Revision 6
EPDM FORM EP-035; Drill/Exercise Objective & Eval Process; Revision 7
CAP 057760; NCAQ – 08TD2-Notification of NRC Resident of EAL Was Not Timely
CAP 057773; CAQ – 08TD2-Declaration of 10CFR50.54x
CAP 057790; NCAQ – 08TD2-ENS Communicator Contacted NRC Via Public Phone System
CAP 057794; CAQ – 08TD2-NOTE 5 Initiation from EOF Not Performed to Expectations
CAP 057810; NCAQ – 08TD2-EC Did Not Clearly Announce Transfer of Command & Control to the TSC
CAP 057829; CAQ – 08TD2-General Emergency Note 5 Deficiencies
CAP 057836; NCAQ – 08TD2-EAL Bases Document Index in Manual is Incorrect
CAP 057896; CAQ – 08TD2-Failed DEP-PI Opportunities from the EOF for Notifications at GE ACE 001851; CAQ – 08TD2-Failed DEP-PI Opportunities from the EOF for Notifications at GE

2PS1 Radioactive Gaseous And Liquid Effluent Treatment And Monitoring Systems

CAP 056724; NCAQ – Two Out of Three Telephones and GAY-Tronic Pages at Offgas Stack Does Not Work
CAP 043695; Precursors to Declining Performance in the Environmental Monitoring Program as a Result of an environmental Monitoring Program Assessment PDA-06-018
CE 005381; Trace Levels of Tritium were Identified in the Liquid Effluent of the Sewage Treatment Plant in February and March 2007
CE 004888; Failure to Collect Tritium sample Prior to Discharging 1T-22 Neutralizer Tank Corrective Action (CA) 047225; 2007 RP [Radiation Protection]/Chem Focused Self Assessment-REMP and ODAM to Add Palo Strawberry Farm to REMP
CAP 052110; CAQ – Effluent Monitor Setpoints; No Consideration Given to Hard to Detect Isotopes
CE 005716; NCAQ – Investigate Analysis of Gaseous Effluent Particulate Filters for Iron-55
CA 047679; NCAQ – Tritium Identified in CST [Condensate Storage Tank] Pit Sample
CA 046756; Two REMP Program Sample Locations are Not Precise
CA 046754; Enhance ODAM Description of Surveillance and Sampling Frequency
CE 004194; Precursors to Declining Performance in the environmental Monitoring Program 08-36628; Power Off to Required REMP Air Samplers
DAEC ODAM; Appendix B, Technical Bases for Effective Dose Factors; Revision 25

STP NS790301; GSW [General Service Water] Radiation Monitor Calibration; Revision 10
STP NS790305; RHRSW [Residual Heat Removal Service Water] Radiation Monitor
Calibration; Revision 8
06-006-R; Radiological Engineering Calculation; 10 CFR 61 Compliance Data Technical Basis
for DAEC Reactor Water Clean-up Resin; dated April 17, 2007
DAEC ODAM; Offsite Dose Assessment Manual for Gaseous and Liquid Effluents; Revision 25
X/Q Accumulation for Elevated Average sec/cm^3 from Four Release Points, 2005 – 2006;
Various Dates
STP 3.6.4.3-03; Surveillance Test Procedure; Standby Gas Treatment System HEPA and
Charcoal Filter Efficiency Tests; Revision 19
STP NS290201; Surveillance Test Procedure; TSC Standby Filter Unit HEPA and Charcoal
Testing; Revision 2
Radiation Engineering Calculation No. 07-002-C; Calculated Default Setpoint Value for Reactor
Building KAMAN with a Realistic Building Release Flow Rate; dated November 29, 2007
DAEC Ground Water Protection Initiative Site Conceptual Model; dated December 19, 2007
EBD-R; Abnormal Rad Levels Radiological Effluents; EAL Bases Document; Revision 9
SA044334; RP [Radiation Protection]/Chem Focused Self Assessment: REMP and ODAM
OTHER 021502; Review Recent Meteorological and Dispersion Coefficient Data as Compared
to ODAM Defaults
Procedure Change Request 047495; ODAM Figure 5-2, Map of Location is Missing Location
No. 3
1.5 DAEC Safety; Characterize and Control Potential Inputs of Radioactive Water to
Groundwater to Minimize Impact and Meet NEI Industry Initiative; from June 13, 2006; dated
June 13, 2007
Radiation Engineering Calculation No. 07-002-C; Calculated Default Setpoint Value for Reactor
Building KAMAN with a Realistic Building Release Flow Rate; dated November 29, 2007
STP NS791005; K2 Calibration; Surveillance Test Procedure; KAMAN Turbine Vent Shaft
Normal Range Kaman Monitor; Revision 11
STP NS791007; K4 Calibration; Surveillance Test Procedure; KAMAN Reactor Building Vent
Shaft 1 Normal Range; Revision 9
STP NS791012; K10 Functional Test Surveillance Test Procedure; KAMAN Off Gas Stack
Normal Range; Revision 4
06-001-R; Radiological Engineering Calculation; 10 CFR 61 Compliance Data Technical Basis
for DAEC Condensate Resin; dated May 22, 2006
06-005-R; Radiological Engineering Calculation; 10 CFR 61 Compliance Data Technical Basis
for DAEC Dry Active Waste; dated August 13, 2006
NG-107Z; UFSAR Change Request NO. 05-031; Main Steam Line Radiation Monitor Safety
Functional Trip; dated April 16, 2007
PCP 7.2A; ORTEC Spectroscopy System Calibration; Revision 3
PCP 7.3A; Operation of ORTEC Gamma Spectroscopy System; Plant Chemistry Procedures
3200 Manual; Revision 5

40A1 Performance Indicator Verification

NRC PI Data Calculation, Review and Approval; Report Quarter No. 1 Year 2007; dated
April 12, 2007
NRC PI Data Calculation, Review and Approval; Report Quarter No. 2. Year 2007; dated
July 12, 2007
NRC PI Data Calculation, Review and Approval; Report Quarter No. 3. Year 2007; dated
October 15, 2007

NRC PI Data Calculation, Review and Approval; Report Quarter No. 4. Year 2007; dated January 14, 2008
FPL Nuclear Division Nuclear Administrative Procedure-206; NRC Performance Indicators; Revision 3
ACP 1402.4; NRC & WANO Performance Indicator Reporting; Revision 13
NRC PI Data Calculation, Review and Approval Report for RCS Activity; Report Quarter No. 2 Year 2007; dated July 13, 2007
NRC PI Data Calculation, Review and Approval Report for RCS Activity; Report Quarter No. 3. Year 2007; dated October 12, 2007
NRC PI Data Calculation, Review and Approval Report for RCS Activity; Report Quarter No. 4. Year 2007; dated January 14, 2008
NRC PI Data Calculation, Review and Approval Report for RCS Activity; Report Quarter No. 1. Year 2008; dated April 10, 2008
NRC PI Data Calculation, Review and Approval Report for RCS Leakage; Report Quarter No. 2 Year 2007; dated July 18, 2007
NRC PI Data Calculation, Review and Approval Report for RCS Leakage; Report Quarter No. 3. Year 2007; dated October 12, 2007
NRC PI Data Calculation, Review and Approval Report for RCS Leakage; Report Quarter No. 4. Year 2007; dated January 7, 2008
NRC PI Data Calculation, Review and Approval Report for RCS Leakage; Report Quarter No. 1. Year 2008; dated April 9, 2008
NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 5

40A2 Identification and Resolution of Problems

CAP 057150; CAQ – TLC6924A CB Chiller Temperature Load Controller
CAP 057445; CAQ – 1G21 ‘B’ SBDG Tripped during Maintenance Run
CAP 057465; CAQ – 1E053B3 Expansion Bellows Leaking
CAP 057492; CAQ – Error Found in Technical Requirements Manual Basis Document
ACE 001848; 1G21/ENG Tripped During Maintenance Run
ACE 001849; Apparent Cause Evaluation for 1E053B3 Expansion Bellows Leakage
ACP 114.4; Corrective Action Program; Revision 23
ACP 114.5; Action Request System; Revision 69
ACP 114.8; Action Request Trending; Revision 6
TRMCR-030; Technical Requirements Manual Change Request: Revise Bases for TLCO 3.0.5 to match the wording of TS LCO 3.0.5 Bases
ACEM; Apparent Cause Evaluation Manual; Revision 9
RCM; Root Cause Evaluation Manual; Revision 14

40A3 Follow-up of Events and Notices of Enforcement Discretion

CAP 058266; CAQ – Lack of Diverse Communications (Phone and Data)
CAP 058284; NCAQ – Evaluate if Additional Domestic Water Sampling is needed due to Flood
CAP 058291; CAQ – Flood – Normal Operator Rounds at Intake and “D” Well not Completed
CAP 058292; CAQ – 8-hour Reportable Notification Made for Loss of Offsite Response Capability
CAP 058295; CAQ – 8-hour Reportable Notification Made for Loss of Offsite Communications Capability
CAP 058298; CAQ – Unusual Event Declared Based on Loss of Communication Capability
CAP 058296; CAQ – Partial Loss of Communications see SEL 08-091
CAP 058301; NCAQ – Sixth Street Line Unavailable as Offsite Power Source

CAP 058302; NCAQ – Hiawatha Line Unavailable as Offsite Source
CAP 058303; NCAQ – Adequate Grid Voltage Available Upon Loss of Fairfax Line
CAP 058304; CAQ – Aux Outside Out Rounds Suspended due to River Level Concerns
CAP 058305; NCAQ – Notification by ATC of Contingency Grid Voltage from Trip of DAEC
CAP 058307; NCAQ – Hazelton-Hills Line 345 kV [kilovolt] Alarms in Switchyard House
CAP 058313; CAQ – Flood – Normal Operator Rounds not Completed
CAP 058315; NCAQ – Lessons Learned From Flood
CAP 058317; NCAQ – 50.59 Applicability Question
CAP 058320; CAQ – Partial Loss of Pager Functionality
CAP 058324; CAQ – Water in Bottom of CST [Condensate Storage Tank] Level Switch Panel LS5219
CAP 058326; CAQ – Degraded Barrier
CAP 058328; CAQ – Flood 2008 – Recovery Strategy to Return to Daily RWS [River Water Supply] Pump Swaps
CAP 058332; CAQ – Minor Backfill Washout Noted on Northwest Corner of Intake Structure
CAP 058335; NCAQ – Difficulty in Receiving Severe Weather Watch and Warning Info
CAP 058339; NCAQ – ATC Unable to Run Grid Voltage Contingency Cases – MISO Can
CAP 058340; NCAQ – Water Coming into Turbine Building along Cableway
CAP 058348; NCAQ – EAL SU 6.2
EAL-01; Emergency Action Level Matrix; Revision 7
EAL Bases Document EBD-S; System Malfunction Category; Revision 7
AOP 399; Loss of Communications; Revision 4
AOP 410; Loss of River Water Supply; Revision 20
AOP 902; Flooding; Revision 31
AOP 903; High Winds/Severe Thunderstorm/Tornado; Revision 24
Drawing BECH-C101; Site Plan; Revision 38
DAEC Emergency Plan, Section ‘F’; Emergency Communications; Revision 24
DAEC Emergency Plan, Section ‘H’; Emergency Facilities staffing, Activation and Equipment; Revision 25

40A5 Other Activities

CAP 058245; CAQ – Tampering of Lock Used on Operating Permit for Cooling Tower Work
CAP 058359; CAQ – Contract Worker Tested Positive for Alcohol During For-Cause Testing

LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluation
ACP	Administrative Control Procedure
AFP	Area Fire Plan
AOP	Abnormal Operating Procedure
CA	Corrective Action
CAP	Corrective Action Process
CAQ	Condition Adverse to Quality
CBC	Control Building Chiller
CE	Condition Evaluation
CFR	Code of Federal Regulations
CWO	Corrective Work Order
DAEC	Duane Arnold Energy Center
EAL	Emergency Action Level
EDG	Emergency Diesel Generator
EPDM	Emergency Planning Department Manual
EPIP	Emergency Plan Implementing Procedure
ESW	Emergency Service Water
GPI	Ground Water Protection Initiative
HPCI	High Pressure Coolant Injection
HEPA	High Efficiency Particulate Air
HVAC	Heating, Ventilation, and Air Conditioning
IMC	Inspection Manual Chapter
IPOI	Integrated Plant Operating Instruction
INPO	Institute of Nuclear Power Operations
LCO	Limiting Condition for Operation
NCAQ	Non Condition Adverse to Quality
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODAM	Offsite Dose Assessment Manual
OI	Operating Instruction
OOS	Out-of-service
OPR	Operability Recommendation
PCP	Plant Chemistry Procedure
PI	Performance Indicator
PWO	Preventative Work Order
PMT	Post-Maintenance Testing
RCS	Reactor Coolant System
RCIC	Reactor Core Isolation Cooling
RETS	Radiological Effluent Technical Specifications
SBDG	Standby Diesel Generator
SBLC	Standby Liquid Control
SDP	Significance Determination Process
STP	Surveillance Test Procedure
TS	Technical Specification
TSG	Transformer, Switchyard, and Grid
TSO	Transmission System Operator
UFSAR	Updated Final Safety Analysis Report

URI
Vdc

Unresolved Item
Volts Direct Current