UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

April 24, 2012

Mr. Vito Kaminskas, Site Vice President
FirstEnergy Nuclear Operating Company
Perry Nuclear Power Plant
P. O. Box 97, 10 Center Road, A-PY-290
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT NRC INTEGRATED INSPECTION REPORT 05000440/2012002

Dear Mr. Kaminskas:

On March 31, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed a baseline inspection at your Perry Nuclear Power Plant Unit 1. The enclosed inspection report documents the inspection results which were discussed on April 4, 2012, 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, one self-revealed finding of very low safety significance (Green) was identified. The finding involved a violation of NRC requirements. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of any NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Perry Nuclear Power Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Perry Nuclear Power Plant.

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

Sincerely,

/RA/

John B. Giessner, Chief
Branch 4
Division of Reactor Projects

Docket No. 50-440
License No. NPF-58

Enclosure: Inspection Report 05000440/2012002
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-440
License No:	NPF-58
Report No:	05000440/2012002
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Perry Nuclear Power Plant, Unit 1
Location:	Perry, Ohio
Dates:	January 1, 2012, through March 31, 2012
Inspectors:	M. Marshfield, Senior Resident Inspector T. Hartman, Resident Inspector D. Betancourt-Roldan, Reactor Engineer N. Feliz-Adorno, Reactor Engineer M. Jones, Reactor Engineer J. Nance, Reactor Engineer S. Shah, Reactor Engineer
Approved by:	John B. Giessner, Chief Branch 4 Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS

Inspection Report (IR) 05000440/2012002; 01/01/2012 – 03/31/2012; Perry Nuclear Power Plant; Outage Activities.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One self-revealed finding of very low safety significance (Green) was identified. The finding was considered a non-cited violation (NCV) of NRC regulations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP); the cross-cutting aspects were determined using IMC 0310, "Components Within the Cross-Cutting Areas." 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

Cornerstone: Initiating Events

Green. A self-revealed finding of very low safety significance (Green) and an associated NCV of 10 CFR 50.65(a)(4) was identified for failure to assess and manage risk associated with maintenance activities. Specifically, the licensee planned and conducted maintenance on a stator water cooling system pressure gauge on March 1, 2012, as a lower risk evolution than required, and conducted the maintenance online despite several decision points which indicated that this maintenance should have been conducted with the unit offline. When performed on line, the activity caused a reactor scram. The licensee entered the issue into the corrective action program as Condition Report 2012-03231.

The finding was evaluated using IMC 0612, Appendix E, "Examples of Minor Issues," and was determined to be more than minor because it is similar to Example 7.e and resulted in a reactor scram. Additionally, the performance deficiency impacted the Human Performance attribute of the Initiating Events Cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. In accordance with IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," a Region III Senior Reactor Analyst performed an analysis of the risk deficit for the unevaluated condition associated with work on a stator water system pressure gauge resulting in a reactor scram. The Perry Standardized Plant Analysis Risk (SPAR) model version 8.15 and SAPHIRE version 8.0.7.18 was used to calculate an Incremental Core Damage Probability Deficit (ICDPD). The result was an ICDPD of less than 7E-8. The dominant core damage sequences involved: (1) loss of the main condenser, failure of suppression pool cooling, failure of containment spray, failure of the power conversion system, failure of containment venting, and failure of late injection; and (2) failure of the reactor protection system to shutdown the reactor with failure of the recirculation pumps to trip. In accordance with IMC 0609, Appendix K, because the calculated ICDPD was not greater than 1E-6, the finding was determined to be of very low safety significance. This finding was associated with a cross-cutting aspect in the Work Planning (H.3(a)) component of the Human Performance cross-cutting area because the licensee did not incorporate appropriate risk insights into the

development of the work package. Specifically, the licensee did not evaluate, during the planning phase of the work preparation, for the impact of re-installation of the pressure gauge and the potential for a pressure spike; a spike which caused a sustained runback of the main turbine generator with a resultant required action by the operators to manually scram the reactor. (1R20)

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

The plant began the inspection period at 100 percent power. On March 1, 2012, at 0224 hours a manual scram was inserted by the operators because of a generator runback signal caused by maintenance on a manual pressure gauge in the stator water cooling system. Restoring the pressure gauge to service after calibration caused a false low pressure signal to be seen by the generator runback sensing circuitry. On March 3, 2012, at 0212 hours the reactor plant was placed in startup mode and achieved criticality at 0628 hours on the same day. On March 4, 2012, at 1156 hours the plant generator was synchronized to the grid. With the exception of minor reductions in power to support routine surveillances, the plant remained at full power for the remainder of the quarter.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

Readiness for Impending Adverse Weather Condition – Severe High Wind Conditions

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility for February 24, 2012, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. The inspectors walked down the electrical distribution systems for the site's normal offsite power systems and the conditions in the vicinity of the Unit 2 Turbine Building de-construction project. In addition, the licensee's emergency alternating current (AC) power systems were walked down because of their safety-related functions which could be affected or required as a result of high winds or tornado-generated missiles, or a general loss of offsite power. The inspectors evaluated the licensee's preparations against the site's procedures and determined that the staff's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors also toured the plant grounds to look for any loose debris that could become missiles during a tornado. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the Updated Safety Analysis Report (USAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. The inspectors also reviewed a sample of corrective action program (CAP) items to verify that the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with station corrective action procedures. Specific documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one sample for readiness for impending adverse weather conditions as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04Q)

a. Inspection Scope

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

- high-pressure core spray (HPCS);
- 'A' standby liquid control system;
- 'A' control room ventilation and emergency recirculation system; and
- 'A' annulus exhaust gas treatment system (AEGTS)

The inspectors selected these systems based on their risk-significance relative to the Reactor Safety Cornerstone at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, USAR, Technical Specification (TS) requirements, outstanding work orders, condition reports (CRs), 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 CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

These inspections constituted four samples for partial system walkdowns as defined in IP 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (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:

- Fire Zones 1AB-1a/f/g (Auxiliary Building 574' – Low-Pressure Core Spray (LPCS) room , HPCS room, Hallway);
- Fire Zones 1DG-1c & 1CC-3c (Unit 1 – Division 1 Emergency Diesel Generator (EDG) Room and Division 1 4160V and 480V Switchgear Room);

- Fire Zones 1CC-4g/h (Unit 1 – Division 1 125 Volt DC Distribution and Battery Rooms);
- Fire Zone 1CC-6 and 2CC-6 (Control Complex 679'-6" Elevation); and
- Fire Zone 0IB-3 (Intermediate Building 620' Elevation).

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 implemented adequate compensatory measures for out-of-service, 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 CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted five quarterly samples for fire protection as defined in IP 71111.05-05.

b. Findings

No findings were identified.

1R07 Triennial Review of Heat Sink Performance (71111.07T)

a. Inspection Scope

The inspectors reviewed operability determinations, completed surveillances, vendor manual information, associated calculations, performance test results, and inspection results associated with the 'B' and 'D' residual heat removal (RHR) heat exchangers, 'B' EDG jacket water cooler, and the 'B' emergency service water (ESW) system. These components were chosen based on their risk significance in the licensee's probabilistic safety analysis, their important safety-related mitigating system support functions, and their operating history.

For the selected heat exchangers, the inspectors reviewed testing, inspection, maintenance, and monitoring of biotic fouling and macrofouling programs relied upon to ensure proper heat transfer. This was accomplished by verifying: (1) the selected test method was consistent with accepted industry practices, or equivalent; (2) the test conditions were consistent with the selected methodology; and (3) the test acceptance criteria were consistent with the design basis values. In addition, the inspectors reviewed the results of heat exchanger performance testing and verified that the test results appropriately considered: (1) differences between testing conditions and design conditions; and (2) test instrument inaccuracies. The inspectors also verified trending of

test results to confirm that the test frequency was sufficient to detect degradation prior to loss of heat removal capabilities below design basis values. In addition, the inspectors verified the condition and operation of the heat exchangers were consistent with design assumptions in heat transfer calculations and applicable descriptions in the final safety analysis report. The inspectors verified the licensee evaluated the potential for water hammer and established controls and operational limits to prevent heat exchanger degradation due to excessive flow-induced vibration during operation.

For the ESW system, the inspectors reviewed procedures for a loss of ESW system and verified the instrumentation relied upon for decision making was available and functional. In addition, the inspectors verified macrofouling and biocide treatments were monitored, trended, and controlled by the licensee to prevent clogging.

The inspectors performed a system walkdown of the ESW system to verify the licensee's assessment on structural integrity. In addition, the inspectors reviewed available testing and inspections results, disposition of any active thru wall pipe leaks, and history of thru wall pipe leakage to identify any adverse trends since the last NRC inspection. For buried or inaccessible piping, the inspectors reviewed: (1) the pipe testing, inspection, and monitoring program intended to verify structural integrity; and (2) the disposition of any identified leakage or degradation. The inspectors verified the licensee monitored and resolved any adverse trends for the deep draft vertical pumps by reviewing the operational history and in-service testing vibration monitoring results.

In addition, the inspectors reviewed CRs related to the heat exchangers and heat sink performance issues to verify the licensee had an appropriate threshold for identifying issues and to evaluate the effectiveness of the corrective actions.

The documents that were reviewed are included in the Attachment to this report.

These inspection activities constituted four heat sink inspection samples as defined in IP 71111.07-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

On January 30, 2012, 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. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly sample for the licensed operator requalification program as defined in IP 71111.11.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation of Heightened Activity or Risk (71111.11Q)

On January 14, 2012, the inspectors observed an unscheduled downpower to 85 percent power as a result of a human error while drilling an injection point into the 'B' feedwater pump drain line. The inspectors observed the control room reactivity control actions and feedwater pump removal from service and isolation procedures. On February 4, 2012, the inspectors observed the activities in the control room during a power reduction to conduct turbine stop valve, combined intermediate valve and bypass valve testing. These were both activities which required heightened awareness or were related to increased risk. 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 procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions.

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly sample for licensed operator heightened activity/risk as defined in IP 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q)

a. Inspection Scope

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

- Division 1 EDG; and
- diesel generator (DG) room ventilation system.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted or could have resulted in valid or invalid automatic actuations of engineered safeguards systems and 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 CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two samples for quarterly maintenance effectiveness as defined in IP 71111.12-05.

b. Findings

No findings 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:

- 'A' train of AEGTS exceeding 50 percent of TS limiting condition for operation (LCO) time;
- 'B' train of RHR system;
- irradiated fuel channel coupon cutting;

- condensate storage tank internal cleaning;
- 'E' average power range monitor (APRM) trip card cleaning; and
- control rod drive transponder box 14-55 cable adjustment.

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 maintenance risk assessments and emergent work control activities constituted six samples as defined in IP 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- activity detected in the nuclear closed cooling system;
- crack on Division 2 EDG turbocharger intercooler support gusset plate;
- HPCS suction piping pressurization through suppression pool cooling lines;
- cracks on DG room fan hubs; and
- leak at the bottom of the 5A intermediate pressure feedwater heater

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 TS and USAR 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 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 to this report.

This operability inspection constituted five samples as defined in IP 71111.15-05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed the following modifications:

- condensate minimum flow valve replacement ; and
- alternate decay heat removal system installation.

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the USAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system(s). The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed in the course of this inspection are listed in the Attachment to this report.

This inspection constituted two permanent plant modification samples as defined in IP 71111.18-05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

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

- 'A' AEGTS fan motor replacement during the week of January 2, 2012;
- HPCS waterleg pump motor replacement during the week of January 16, 2012;
- reactor core isolation cooling (RCIC) turbine governor maintenance and oil removal inspection during the week of January 30, 2012;
- RCIC valve work during online outage during the week of January 30, 2012;
- DG room fan hub replacements during the week of March 7, 2012; and
- service water pump 'B' retest after refurbishment during the weeks of March 19 and 26, 2012.

These activities were selected based upon the structure, system, or component's 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, USAR, 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 PM tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted six PM testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors evaluated outage activities for a forced outage that began on March 1, 2012, and continued through March 4, 2012. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, startup and heatup activities, and identification and resolution of problems associated with the outage. The outage was caused by a generator runback which was precipitated by scheduled work on a manual pressure gauge in the stator water cooling system. When the technicians valved in the pressure gauge after completing calibration of the gauge, the pressure signal to the runback signal generating unit dropped below the setpoint and the runback commenced. When the third of seven turbine bypass valves opened approximately 40 seconds later, the operators took action to manually scram the reactor as required by Perry operating procedures. The inspectors reviewed the licensee scram report and evaluation of cause for the scram event. Restart decision meetings were attended to ensure the licensee remained focused on plant safety during the decision making process. The licensee discovered that the original maintenance evolution, which caused the outage, should have been yellow risk and that the reclassification as such may have generated further management review and possibly led to a conclusion that the maintenance should not have been done while the reactor was at power.

This inspection constituted one “other outage” sample as defined in IP 71111.20-05.

b. Findings

Introduction: A self-revealed finding of very low safety significance (green) with an associated NCV of 10 CFR 50.65(a)(4) was identified for the licensee's failure to assess and manage risks associated with maintenance activities. Specifically, the licensee planned and conducted maintenance on a stator water cooling system pressure gauge on March 1, 2012, as a lower risk evolution than required, green risk vice yellow risk, and conducted the maintenance online despite several decision points which indicated that this maintenance should have been conducted with the reactor shutdown.

Description: On March 1, 2012, the control room authorized maintenance on a local reading pressure gauge in the stator water cooling system. The local reading gauge connects into a common sensing line which also provides pressure input to a stator water low-pressure control room alarm and a generator runback low-pressure detection switch. The challenge of safely restoring this system after calibration of the gauge was identified by the technicians during the pre-job brief and was reinforced by management and the shift supervisors that authorized the work. The evaluation of risk category was not challenged at this point in the process. A general discussion was conducted that this was a high "risk to generation" evolution during the restoration part of the work. This specific maintenance evolution had not been performed online since original startup. Other plant gauges have been successfully removed from service, calibrated, and restored to service with the plant online, but not this particular gauge.

The stator water cooling system is scoped into the plant maintenance rule program as a system which is "non-safety related but whose failure causes a reactor scram or actuates safety systems." The system is tracked as a whole item with system-wide performance criteria. In accordance with the licensee's Nuclear Operating Procedure (NOP)-OP-1007, "Risk Management," this maintenance procedure should have been classified as a yellow risk evolution. Specifically, the first question of attachment 3 to the procedure, which was not used (but should have been used) to evaluate the risk of this procedure, states that if an activity which is performed incorrectly would cause a reactor trip, then the work is "yellow" risk. It is possible that if the system had been classified as yellow risk, further management attention and involvement in the planning may have led to a decision not to conduct the maintenance online because of the increased risk.

An additional unknown issue existed in the plant which posed a challenge to successful completion of this maintenance online. The licensee identified after the fact that undocumented on the system drawing, there is a very fine flow restrictor in the common sensing line which leads to the local gauge which was removed for calibration. The flow restrictor was installed during original construction to minimize pulsations in the line. Despite the precautions taken by the technicians on March 1, 2012, when the gauge was reconnected to the sensing line and the valve "slowly cracked open," the air bubble introduced caused a nearly instantaneous system low-pressure alarm and runback of the main generator. The unidentified flow restrictor installed at initial construction severely limited the ability of the gauge line to re-pressurize and clear the low- pressure indications of the alarm and runback functions. The control room operators responded as required by operations procedures and when conditions were met, inserted a manual scram. The plant responded as expected to the initial event and the subsequent scram. The licensee entered the issue into the corrective action program as CR 2012-03231 and conducted a root cause evaluation. The plant's immediate actions were to stabilize

the plant and conduct an evaluation of plant performance during the scram and ensure the cause of the scram was understood.

During the root cause evaluation, the licensee identified a precursor event which could have prevented this entire challenge to plant stability. An engineering change completed in the spring 2011 refueling outage changed the reference point of the gauge that was calibrated in this work procedure so that it would read the pressure at a higher point in the system causing the gauge to read intentionally lower than the pressure actually being sensed by the alarm and runback circuitry. The “low reading” on the gauge was the initial reason for writing a work package to restore proper calibration. In fact, the gauge was properly calibrated during the outage but not adequately documented in plant procedures after completion of the modification, and thus operations personnel thought it was out of calibration when in fact it was calibrated as desired by engineering.

Analysis: The inspectors determined that the licensee’s inadequate actions to assess and manage the risks associated with the maintenance activities did not prevent a transient that upset plant stability, resulting in a manual reactor scram, and was a performance deficiency. Specifically, the licensee planned and conducted maintenance on a stator water cooling system local reading pressure gauge on March 1, 2012, as a lower risk evolution than required, and conducted the maintenance online despite several decision points which indicated that this maintenance should have been conducted with the reactor shutdown. The inspectors evaluated the performance deficiency in accordance with IMC 0612, Appendix B, “Issue Screening.” This deficiency was determined to be more than minor because it is similar to IMC 0612, Appendix E, Example 7.e and resulted in a reactor scram. Additionally, the performance deficiency impacted the human performance attribute of the Initiating Events Cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations.

The inspectors determined that the finding could be evaluated in accordance with IMC 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process.” In accordance with IMC 0609, Appendix K, a Region III Senior Reactor Analyst performed an analysis of the risk deficit for the unevaluated condition associated with work on a stator water system pressure gauge resulting in a reactor scram. The Perry Standardized Plant Analysis Risk (SPAR) model version 8.15 and SAPHIRE version 8.0.7.18 was used to calculate an incremental core damage probability deficit (ICDPD). The result was an ICDPD of less than 7E-8. The dominant core damage sequences involved (1) loss of the main condenser, failure of suppression pool cooling, failure of containment spray, failure of the power conversion system, failure of containment venting, and failure of late injection, and (2) failure of the reactor protection system to shutdown the reactor with failure of the recirculation pumps to trip. In accordance with IMC 0609, Appendix K, because the calculated ICDPD was not greater than 1E-6, the finding was determined to be of very low safety significance.

This finding has a cross-cutting aspect in the work planning component of the human performance cross-cutting area per IMC 0310 (H.3(a)) because the licensee did not incorporate appropriate risk insights into the development of the work package. Specifically, the licensee did not evaluate, during the planning phase of the work preparation, for the impact of re-installation of the pressure gauge and the potential for a pressure spike; a spike which caused a sustained runback of the main turbine generator with a resultant required action by the operators to manually scram the reactor.

Enforcement: Title 10 CFR 50.65(a)(4) requires, in part, that before performing maintenance activities, the licensee shall assess and manage the increase in risk that may result from the maintenance activity. The stator water cooling system is scoped into the licensee's maintenance rule program as a non-safety related system whose failure causes a reactor scram. Procedure, NOP-OP-1007, "Risk Management," implements the site's program for 10CFR 50.65 and considers scram risk as part of risk activities. A specific question in NOP-OP-1007, "Risk Management," directs that maintenance "which if performed incorrectly would cause a reactor trip" should be classified as yellow risk. Contrary to the above, on March 1, 2012, the licensee failed to correctly assess and manage the risk associated with maintenance on a gauge in the stator water cooling system. The result of this maintenance was an upset to plant stability caused by a generator runback which ultimately required the operators to insert a manual scram. Because this violation was determined to be of very low safety significance, and the issue was entered into the licensee's corrective action program as CR 2012-03231, this violation is being treated as an NCV consistent with section 2.3.2 of the NRC enforcement policy. (**NCV 05000440/2012002-01, Reactor Manual Scram Associated With Inadequate Maintenance Risk Evaluation**)

1R22 Surveillance Testing (71111.22)

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:

- LPCS pump and valve in-service testing;
- 'A' standby liquid control system pump and valve routine testing;
- 'B' emergency closed cooling system routine testing;
- Division 1 EDG monthly routine testing; and
- APRM 'E' routine channel calibration.

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- were the effects of the testing adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria clearly stated, demonstrated operational readiness, and 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 TS, USAR, 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, 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 CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted four samples for routine surveillance testing and one sample for inservice testing as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation - Training Observation (71114.06)

a. Inspection Scope

The inspectors observed a simulator training evolution for licensed operators on January 30, 2012, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator (PI) data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the CAP. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the Attachment to this report.

This inspection of the licensee's training evolution with emergency preparedness drill aspects constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events

4OA1 Performance Indicator Verification (71151)

.1 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours PI for the period from the first quarter 2011 through the fourth quarter 2011. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, was used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, and NRC inspection reports (IRs) for the period of first quarter 2011 through the fourth quarter 2011 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample for unplanned scrams per 7000 critical hours as defined in IP 71151-05.

b. Findings

No findings were identified.

.2 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications PI for the period from first quarter 2011 through the fourth quarter 2011. 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 6, was used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, and NRC IRs for the period of first quarter 2011 through the fourth quarter 2011 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample for unplanned scrams with complications as defined in IP 71151-05.

b. Findings

. No findings were identified.

.3 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours PI for the period from the first quarter 2011 through the fourth quarter 2011. 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 6, was used. The inspectors reviewed the licensee's operator narrative logs, issue reports, maintenance rule records, event reports, and NRC IRs for the period of first quarter 2011 through the fourth quarter 2011 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample for unplanned transients per 7000 critical hours as defined in IP 71151-05.

b. Findings

No findings 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 IPs 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 CAP 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: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; 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 CAP as a result of the inspectors' observations are included in the Attachment to this report.

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 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 CAP. This review was accomplished through inspection of the station's daily CR 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 were identified.

.3 Semiannual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP 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 CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the 6-month period of July 1, 2011, through December 31, 2011, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal CAP such as in major equipment problem lists, repetitive and/or rework 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 CAP 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 one semi-annual trend inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.4 Selected Issue Follow-up Inspection: Ventilation Filter Testing Program

a. Inspection Scope

The inspectors selected the following action requests for an in-depth review:

- CR 2012-00098; Annulus Exhaust Gas Treatment Testing Schedule – Minimizing Out-of-Service Time; and
- CR 2012-02121; Coatings Performed in Aux Building without VOC Evaluation or Work Order.

The inspectors discussed the evaluation and associated corrective actions with licensee personnel and verified the following attributes during their review of the above apparent cause evaluation:

- complete and accurate identification of the problem in a timely manner, commensurate with its safety significance and ease of discovery;
- consideration of the extent of condition, generic implications, common cause and previous occurrences;
- classification and prioritization of the resolution of the problem, commensurate with safety significance;
- identification of the root and contributing causes of the problem; and
- identification of corrective actions, which were appropriately focused to correct the problem.

The inspectors discussed the corrective actions and associated action request evaluations with licensee personnel.

This review constituted one in-depth problem identification and resolution samples as defined in IP 71152-05.

a. Findings

No findings were identified.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report 05000440/2011-002-01: Condition Prohibited by Technical Specifications and Plant Shutdown Due to Unit 1 Startup Transformer Issues

a. Inspection Scope

On September 26, 2011, at 0158 hours, the Unit 1 startup transformer (SUT) was taken out of service to perform scheduled maintenance. The licensee considered that the Unit 2 SUT and a manual Unit 1 backfeed capability through the auxiliary transformer satisfied TS 3.8.1 which requires two qualified offsite circuits to be operable. Further review and consultation with the NRC determined that the backfeed lineup was not creditable as a qualified offsite circuit. The review further identified that the TS-required actions for 3.8.1 were not completed as required on September 26, 2011. The transformer was restored to service within the original time period allotted for the LCOs in TS 3.8.1. Subsequently on September 29, 2011, the transformer experienced an internal fault and failed at 0529 hours. Since repairs would not be completed during the LCO period, the plant was shut down on October 2, 2011, at 0158 hours to support repairs to the Unit 1 SUT.

This revision to the licensee event report (LER) was reviewed by the inspectors and no additional findings or violations of NRC requirements were identified. The revision

updated information on the failure mechanism of the transformer. The transformer failure mechanism was determined to be an internal flash-over between the B phase bushing corona ring and the grounded tank wall. The flash-over resulted from a low transformer oil dielectric and a damaged corona ring on the B phase transformer high-voltage bushing. Documents reviewed are listed in the Attachment. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

.2 (Closed) Licensee Event Report 05000440/2011-004-00 and 05000440/2011-004-01: Flooding Calculation Deficiency Results in Unanalyzed Condition

a. Inspection Scope

On November 16, 2011, at 2000 hours, after conversations with the NRC, the licensee determined that internal flooding calculation JL-083, Revision 2, "Flooding Analysis of CCB, IB, and FHB - Floor Elevation 574'-10", contained assumptions regarding operator actions required to isolate a postulated break that were not documented. Specifically, the calculation credited operator actions to perform system isolations, but these actions were not translated to appropriate procedures. The calculation had been performed to address the flooding effects of postulated pipe cracks for moderate energy piping in the intermediate, fuel handling, and control complex buildings. The licensee documented the deficiency in CR 11-05217 and conducted a prompt functionality assessment to determine the appropriate corrective actions, which included implementing a temporary modification to install a temporary flood barrier and instituting an operations night order as an interim action until procedure changes were implemented.

Subsequently, the licensee failed to notify NRC upon discovery of the previously mentioned postulated internal flood in the control complex. The postulated flood scenario could result in the loss of single failure capability of safety-related equipment. Therefore, the condition met the criteria of 50.72(b)(3)(ii)(B), and should have been reported to the NRC within eight hours of discovery, as an unanalyzed condition that significantly degraded plant safety on November 22, 2011. The licensee entered this issue into their CAP (CR-2011-06227 and CR-2011-06530) and reported the unanalyzed condition at 18:29 (EST) on December 7, 2011.

Planned corrective actions include designing and implementing a permanent 18 inch high flood barrier, revising appropriate procedures to include operator actions necessary to deal with the event, reviewing flooding calculations to ensure necessary actions to mitigate a flood are identified and ensuring that the actions can be performed. The LER and apparent cause evaluation were reviewed by the inspectors. Two violations were previously identified for the failure to make a 50.72 report to the NRC and the design control issue. Both violations are contained in Inspection Report 05000440/2011008; no additional findings or violations of NRC requirements were identified. Documents reviewed are listed in the Attachment. These LERs are closed.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

4OA6 Meetings

.1 Exit Meeting Summary

On April 04, 2012, the inspectors presented the inspection results to the Site Vice President, Mr. Vito Kaminskas, 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. Proprietary material received during the inspection was returned to the licensee.

.2 Interim Exit Meetings

On Friday, March 2, 2012, the inspectors presented the inspection results of the triennial heat sink inspection to the Acting Site Vice President, Mr. Eric Larson, 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

V. Kaminskas, Site Vice President
E. Larson, Acting Site Vice President
J. Grabnar, Site Operations Director
R. Fili, Site Engineering Director
H. Hanson, Performance Improvement Director
F. Smith, Emergency Preparedness Manager
J. Tufts, Operations Manager
J. Veglia, Maintenance Director

Nuclear Regulatory Commission

A.M. Stone, DRS Branch Chief
N. Valos, Senior Reactor Analyst

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened And Closed

05000440/2012002-01	NCV	Reactor Manual Scram Associated With Inadequate Maintenance Risk Evaluation (Section 1R20)

Closed

05000440/2011-002-01	LER	Condition Prohibited by Technical Specifications and Plant Shutdown Due to Unit 1 Startup Transformer Issues
05000440/2011-004-00 05000440/2011-004-01	LER	Flooding Calculation Results in Unanalyzed Condition

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector 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

- ONI-ZZZ-1; Tornado or High Winds; Revision 16
- CR 2012-02690; Yard Condition on East Side of Plant; dated February 20, 2012

1R04 Equipment Alignment

- VLI-E22A; Valve Lineup Instruction – High Pressure Core Spray; Revision 9
- VLI-R44/E22B; Valve Lineup Instruction – Division 3 Diesel Generator Starting Air System; Revision 9
- VLI-R45/E22B; Valve Lineup Instruction – Division 3 Diesel Generator Fuel Oil System (Unit 1); Revision 3
- VLI-R46/E22B; Valve Lineup Instruction – Division 3 Diesel Generator Jacket Water System (Unit 1); Revision 5
- VLI-R47/E22B; Valve Lineup Instruction – Division 3 Diesel Generator Lube Oil System (Unit 1); Revision 4
- Drawing 302-0356-00000; HPCS Diesel Generator Fuel Oil System; Revision T
- Drawing 302-0358-00000; Div. 3 Diesel Starting Air/Air Dryer Diagram – 1E22-S001; Revision G
- Drawing 302-0359-00000; Division 3 Diesel Lube Oil System – 1E22-S001; Revision E
- Drawing 302-0360-00000; Div. 3 Diesel Jacket Water Cooling System – 1E22-S001; Revision E
- Drawing 302-0701-00000; High Pressure Core Spray System; Revision JJ
- VLI-C41; Valve Lineup Instruction – Standby Liquid Control System; Revision 8
- Drawing 302-0691-00000; Standby Liquid Control System; Revision W
- CR 2012-01956; Flex Conduit Near SLC Tank Needs Repaired; dated February 6, 2012
- VLI-M25/26; Valve Lineup Instruction – Control Room HVAC and Emergency Recirculation System; Revision 7
- Drawing 912-0610-00000; Control Room HVAC and Emergency Recirculation System; Revision FF
- VLI-M15; Annulus Exhaust Gas Treatment System (Unit 1); Revision 4
- SOI-M15; Annulus Exhaust Gas Treatment System; Revision 10
- Drawing 912-0605-00000; Reactor Building Annulus Exhaust Gas Treatment; Revision W
- CR 2011-05530; NRC Question on AEGTS Operability; dated November 16, 2011
- CR 2012-00205; NOP-OP-1007 Orange Activity Risk Entered for AEGTS 'A'; dated January 5, 2012

1R05 Fire Protection (Annual/Quarterly)

- PAP-1910; Fire Protection Program; Revision 24
- FPI-1AB; Pre-Fire Plan Instruction – Auxiliary Building Unit 1; Revision 3
- Drawing 101-0021-00000; Auxiliary Building Floor Plan - El. 568'-4" & 574'-10"; Revision F
- FPI-0CC; Pre-Fire Plan Instruction – Control Complex; Revision 8

- Drawing 105-0013-00000; Control Complex Floor Plan - El. 620'-6"; Revision J
- Drawing 105-0014-00000; Control Complex Floor Plan - Elev. 638'-6"; Revision H
- FPI-1DG: Pre-Fire Plan Instruction – Diesel Generator Building; Revision 6
- Drawing 101-0064-00000; Diesel Generator Building Floor Plan - El. 620'-6" & 646'-6"; Revision H
- Drawing 105-0016-00000; Control Complex Floor Plans - El. 679'-6", El. 693'2" & El. 707'2"; Revision J
- CR 2012-02131; NRC ID CC679 Housekeeping Issues; dated February 9, 2012
- FPI-0IB; Pre-Fire Plan Instruction – Intermediate Building; Revision 6
- Drawing 101-0033-00000; Intermediate Building Floor Plan - Elev. 620'-6"; Revision K
- CR 2012-02948; NRC Resident Identified Degraded Fire Penetration Seal; dated February 24, 2012

<u>1R07 Heat Sink Performance</u>

- 302-0792-00000; ESW System; January 12, 2012
- 302-0791-00000; ESW System; August 23, 2011
- 21-0016-00002; Residual Heat Removal Heat Exchanger - 1E12B001B Tube Sheet Drawing; Revision A
- 21-0016-00004; Residual Heat Removal Heat Exchanger - 1E12B001D Tube Sheet Drawing; Revision A
- 22A3139M; Residual Heat Removal System Design Spec Data Sheet Revision 11
- 22A4206AA; RHR Heat Exchanger Design Spec Data Sheet; Revision 2
- 22A4206AL; RHR Heat Exchanger Design Spec Data Sheet; Revision 3
- 302-0642-00000; Residual Heat Removal System; Revision HH
- 302-0643-00000; Residual Heat Removal System; Revision AAA
- WO200044212; Div. 2 EDG Jacket Water Heat Exchanger Performance; October 1, 2003
- WO200176070; Div. 2 EDG Jacket Water Heat Exchanger Performance; August 18, 2008
- WO200407429; Diver Inspection ESW Intake; September 1, 2010
- WO200430152; Diver Inspection ESW Intake; September 2, 2011
- WO200278730; Silt Inspection ESW Pump Bay; July 10, 2010
- WO200269882; Diver Inspection ESW Forebay; July 12, 2010
- WO200314185; Inspect ESW Forebay; August 25, 2011
- WO200446102; Zebra Mussel Treatment; August 30, 2011
- WO200418681; ESW Pump B and Valve Operability Test; February 10, 2012
- WO200371259; ESW Pump B and Valve Operability Test; July 13, 2011
- WO200363448; ESW Pump B and Valve Operability Test; May 24, 2010
- WO200206151; Temp Indicator for ESW Forebay; July 2, 2008
- WO200329069; Temp Indicator for ESW Forebay; September 27, 2010
- WO200455737; Cathodic Protection Monthly Rectifier and Anode Terminal Box Check; July 24, 2011
- WO200444738; Cathodic Protection Monthly Rectifier and Anode Terminal Box Check; August 16, 2011
- WO200353466; P45-R240 Calibration Check; April 25, 2009
- WO200296025; ESW Piping Inspection; April 12, 2009
- WO200191524; Inspect Intake Tunnel; August 8, 2008
- WO200287002; Inspect Service Water Suction Bays For Silt; July 14, 2010
- WO200413702; Inspect Service Water Suction Bays For Silt; September 23, 2011
- WO200150845; (SR) RHR Heat Exchangers B and D Performance Testing; June 9, 2008
- WO200353931; (4Y) RHR Heat Exchangers B and D Performance Testing; August 19, 2010

- WO199800826; RHR B/D HX Inspection Summary; April 6, 1999
- CR G202-2009-51792; 3" ESW Piping, Erosion Corrosion Exam EC-145; January 9, 2009
- CR 2011-01460; Diving Inspection of Intake and Discharge Structures; September 1, 2011
- CR 2005-03007; Unacceptable Results during Fill and Vent of ESW B; April 4, 2005
- CR 2008-48686; Performance Testing of RHR 'B' Loop; October 29, 2008
- CR 2009-54928; Procedure Issues with SOI-P45/49 Section 7.8 Fill and Vent; March 6, 2009
- CR 2010-87210; Air Binding in B/D RHR Heat Exchangers; December 16, 2010
- R46-018; Design Basis Heat Load and Required ESW flow for the Division 1 and 2 DGJW HXs; July 12, 2002
- R46-12; Evaluation of Heat Transfer Coefficient And Minimum Required Wall Thickness for Division 1 & 2 DG Jacket Water Heat Exchangers 1R46-B0002A/B; July 9, 1999
- P45-081; NPSH and Submergence Requirements for the ESW pumps; September 28, 2004
- ECP08-0288-002; Removal of TM ECP08-0288-001; January 3, 2008
- P45-084; Determine Allowable Silt And Zebra Mussel Accumulations in ESW and SW Intake SSC's; May 12, 2005
- Calculation E12-089; Required ESW Flow for the RHR Hx; Revision 3
- DI-220; Perry Nuclear Power Plant RHR Heat Exchanger Performance Program; November 11, 2011
- E12-102 Rev 1; RHR System Heat Exchanger "B" Loop Performance Test Evaluation; December 17, 2008
- E12-102 Rev 2; RHR System Heat Exchanger "B" Loop Performance Test Evaluation; August 12, 2010
- OE11388; Air Binding of Residual Heat Removal - Heat Exchangers Due to Extended Operation of ESW; September 14, 2000
- OE11968; (Update to 11388) Air Binding of RHR Heat Exchangers on the Tube Side; March 6, 2001
- SOI-E12; Residual Heat Removal System; Revision 56
- NOP-ER-2006; Service Water Reliability Management Program; October 31, 2007
- EMARP-0011; Emergency Service Water System Monitoring Program; February 5, 2009
- PTI-R46-P0001-B; Div. 2 Diesel Generator Jacket Water Heat Exchanger Performance; November 20, 2009
- SOI-P45/P49; Emergency Service Water and Screen Wash Systems; September 15, 2011
- ARI-H13-P877-0002; Division 2 power; September 5, 2008
- ARI-H13-P604-0001; Process Radiation Monitoring Panel; August 8, 2007
- GMI-0023; Inspection of Fresh Water Systems for Clams And Mussels; August 10, 2006
- ONI-P40; ESW or SW Suction Path Blockage; July 23, 2011
- NOP-ER-2007; Underground Piping And Tanks Integrity Program; December 1, 2011
- PTI-R35-P0001; Cathodic Protection Monthly Rectifier And Anode Terminal Box Check; November 30, 2011
- ARI-H13-P604-0001-D3; ESW LOOP A PRCS RAD MON RAD HIGH; Revision 5
- IOI-15; Seasonal Variations; September 16, 2010
- ARI-H13-P601-0017-H6; ESW B DISCH STRAINER STAR DIFF PRESS HI; Revision 12
- ARI-H13-P601-0016-D1; ESW TO DIESEL HEAT EXCHANGER FLOW LOW; Revision 15
- ARI-H13-P601-0017-H5; ESW TO RHR A HX'S FLOW LOW; Revision 12
- ARI-H13-P601-0017-F6; ESW FROM ECC HX B FLOW LOW; Revision 12
- ARI-H13-P601-0017; RHR B and C; Revision 12
- PER 89-450; RHR Heat Exchanger Differential Pressure; September 27, 1989

Condition Reports Generated During the Inspection

- CR 2012-03304; NRC ID: Triennial Heat Sink Inspection – 89 13 Heat Exchanger Performance Trending Methodology; March 1, 2012
- CR 2012-03308; NRC ID Heat Sink Inspection: Discoloration on RHR B/D heat Exchangers; March 1, 2012
- CR 2012-03303; NRC ID Heat Sink Inspection; Less Than Adequate Engineering Rigor Observed; March 1, 2012
- CR 2012-03258; NRC ID – Heat Sink: RHR HX Maximum Tube Side Pressure Drop Documentation; March 1, 2012
- CR 2012-03279; NRC ID – Heat Sink: Calculation P45-T08 for Determining 1P45N0103A/B Alarm Setpoint References Non-Existent Input from FRC 10090; March 1, 2012
- CR 2012-03155; NRC ID: Triennial Heat Inspection – Typographical Error in Procedure PTI-R46P0001B div 2 EDG Jacket Water Heat Exchanger Performance; February 29, 2012
- CR 2012-03128; NRC ID Heat Inspection: ESW Backup Air Bottles; February 28, 2012
- CR 2012-03121; NRC ID Heat Sink Inspection: Walkdown Excessive Leakage from ESW A Pump Packing; February 28, 2012
- CR 2012-03202; NRC Triennial Heat Sink Inspection: Inadequate Evaluation of Air Binding in RHR Heat exchanger; February 29, 2012

1R11 Licensed Operator Requalification Program

- Simulator Exercise Guide OTLC-3058201206_PY-SGC1; Cycle 6 2012 Evaluated Scenario C1; Revision 0; dated January 3, 2012
- CR 2012-00658; Activity to Perform “line kill” on RFPT “B” Casing Drain Line was Unsuccessful; dated January 14, 2012
- SVI-N31-T1151; Main Turbine Valve Exercise Test; Revision 6; dated February 4, 2012
- SVI-C85-T1314; Turbine Bypass Valve Operability Test; Revision 7; dated February 4, 2012
- CR 2012-01953; Scram Announcement Noted During Training Delayed Critical Actions Required to Stabilize the Plant; dated February 6, 2012

1R12 Maintenance Effectiveness

- NOP-ER-3004; FENOC Maintenance Rule Program; Revision 1
- PYBP-PES-001; Maintenance Rule Reference Guide; Revision 12
- Perry Nuclear Power Plant Health Report 2011-04 – Diesel Generators
- Maintenance Rule Basis Document, System R43, R44, R45, R46, R47, R48; Revision 1
- CR 2012-01925; Division 1 DG Exceeded 75% Of Maintenance Rule Hours Limit; dated February 5, 2012
- CR 2011-07010; Div-1 AOT/Div 1 New Sub Cover Box’s And Not A 1 for 1; dated December 17, 2011
- CR 2011-06949; Div.1 AOT – 6 Rocker Arm Swivel Pads Found To Not Function As Designed; dated December 16, 2011
- CR 2012-02077; Documentation Of As-found Condition Of Pre-identified Crack On Div II Right Bank Turbo Intercooler Support Gusset Plate; dated February 28, 2012
- CR 2012-02035; Revision 1 To Previously Evaluated 10 CFR 21 Report For EMD Diesel Jacket Water Pumps; dated February 8, 2012
- CR 2012-02534; Second PMD For Div 1 DFG Air Compressor Overhaul; dated February 16, 2012
- Summary of Work Orders on Division 1 Diesel Generator failures from January 2010 through March 2012

- Perry Nuclear Power Plant Health Report 2011-04 – Diesel Generator Building Ventilation
- Maintenance Rule Basis Document, System M43; Revision 0
- CR 2012-03589; Guide Arm Damaged During 1M43F0030B Removal in Support of 1M43C0001B Work; dated March 7, 2012
- CR 2012-03648; Division III Supply Fan PY-1M43C0002C Replacement Fan Wheel Hub Bushing Different Than Original; dated March 8, 2012
- CR 2012-03686; Hydramotor Damaged; dated March 9, 2012
- CR 2012-03797; Relay Chattering After Fan Hub Replacement; dated March 12, 2012

1R13 Maintenance Risk Assessments and Emergent Work Control

- NOP-OP-1007; Risk Management; Revision 12
- CR 2012-00205; NOP-OP-1007 Orange Activity Risk Entered for AEGTS 'A' – Documentation of Additional Required Actions; dated January 5, 2012
- FTI-E0010; Channeling and Dechanneling of Fuel Bundles in the Fuel Preparation Machine; Revision 3
- NOP-WM-2502; Contractor Procedure Review and Acceptance; Revision 1
- 246-GP-13; Channel Section Retrieval; Revision 3
- NOBP-OP-0007; Conduct of Infrequently Performed Tests or Evolutions; Revision 3
- NOP-OP-1002; Conduct of Operations; Revision 5
- ALARA Plan from WO 200268158; Revision 0
- Management Alignment and Ownership Meeting Packet – Wednesday – March 14, 2012
- Management Alignment and Ownership Meeting Packet – Thursday – March 15, 2012
- NOP-OP-4010; Determination of Radiological Risk; Revision 0
- eSOMS Clearance PY-P11-0006; Condensate Storage Tank Cleaning; Revision 0
- NOBP-OP-0007; Conduct of Infrequently Performed Tests or Evolutions; Revision 4
- NOP-OP-1007; Risk Management; Revision 13
- WO 200474516; Clean Thermal Trip Unit Edge Connector; Revision 0
- eSOMS Narrative Logs; dated March 19, 2012
- CR 2012-04016; Missed Opportunity to Reduce on line PRA Work Risk During the Forced Outage; dated March 15, 2012
- CR 2012-04043; CST Diving Activities Were Planned for 1100 3/15/12, But Did Not Commence as Planned Due To More Pre-Dive Setup Required; dated March 15, 2012
- CR 2012-04113; CS Workers, Associated With Cleaning the CST, Did Not Have Their Radiological Access Request & Briefing Sheet Filled Out for Their High Rad Entry Brief; dated March 16, 2012
- CR 2012-04128; NRC Identified: NRC Questioned Why CST Diving Is Not an IPTE and Documentation of Decision; dated March 16, 2012
- CR 2012-04299; Condensate Storage Tank Cleaning Taking Longer and Expending More Radioactive Filters Than Expected; dated March 20, 2012
- CR 2012-04440; Order not Ready to Work per PWIS; dated March 22, 2012
- CR 2012-04669; Orange Risk Activity not Effectively Managed; dated March 28, 2012
- WO 200471855; Repair Damaged Cable on Control Rod Drive Transponder Box 14-55; dated March 21, 2012
-

1R15 Operability Determinations and Functionality Assessments

- NOP-OP-1009; Operability Determinations and Functionality Assessments; Revision 3
- ODMI from CR 2011-06069; Operation of the Nuclear Closed Cooling System (P43/NCC) with Elevated Isotopic Activity; dated January 6, 2012

- CR 2012-01765; NCC Contamination ODMI (Rev 1) Comments from Plant Operations Review Committee; dated February 2, 2012
- PFA from CR 2012-01668; Functionality of the Nuclear Closed Cooling (NCC) System Should Be Assessed Due to Elevated Activity Levels; dated February 9, 2012
- CR 2012-02662; Request Setpoint Change For 0D17-K0607 NCC HX Outlet Radiation Monitor; dated February 20, 2012
- CR 2012-02949; Categorization of Potential Leakage Into NCC; dated February
- CR 2012-02077; Documentation of As-found Condition of Pre-identified Crack on Div II DG Right Bank Turbo Intercooler Support Gusset Plate; dated February 8, 2012
- ODMI Summary Sheet for Suppression Pool Clean-up Leakage Pressurizing High Pressure Core Spray Suction Piping from the Fuel Pool Cooling and Clean-up System; dated February 3, 2012
- CR 2012-00283; HPCS Pump Suction Pressure Hi/Lo Alarm Received on 1/6/2012; dated January 7, 2012
- PMI-0001; Preventative Maintenance of Vane Axial Fans; Revision 6
- CR 2011-00789; Cracks Discovered in DIV 3 DG RM SUPP FAN 2C; dated October 18, 2011
- Prompt Operability Determination for CR 12-03521 for Diesel Generator Fan Hub Issues; dated March 10, 2012
- Procurement Package – 100072922; EDG Fan Assembly Hub Wheels; Revision 1
- CR 2012-03521; Cracks in DIV 2 DG RM SUPPLY FAN 1B; dated March 6, 2012
- CR 2012-03748; Questions Regarding Application of NOP-OP-1009; dated March 9, 2012
- CR 2012-03757; Crack Identified in Div 1 EDG Room Supply fan 1A; dated March 10, 2012
- CR 2012-03775; Broken Hub on Diesel Fan; dated March 11, 2012
- CR 2012-03999; As Found Condition of 1M43C0002A Fan Hub; dated March 14, 2012
- CR 2012-04034; PY-1M43C0001C, “DIV 3 DG RM FAN 1C” Fan Hub Crack; dated March 15, 2012
- ODMI 2012-003929; Leak at the Bottom of the 5A Intermediate Pressure Feedwater Heater (IN27B0001A); Revision 0
- CR 2012-03929; ODMI for Tracking per NOP-OP1010 4.2.6 “Leak at the Bottom of the 5A Intermediate Pressure Feedwater Heater (IN27B0001A)” ; dated March 14, 2012
- CR 2012-04750; Request for PFA not entered into Narrative Log; dated March 29, 2012

<u>1R18 Plant Modifications</u>

- ECP 10-0067; Condensate Mini-flow Line Replacement; Revision 2
- WO 200404491; Implement ECP 10-0067-01 For CNDS Min. Recirculation Flow Valve 1N21F0245; dated February 24, 2012
- CR 2012-02729; ECP 10-0067 Rev 1 For PY-1N21F0245 Required A Revision During Implementation To Make Corrections To The Tubing Configuration; dated February 21, 2012
- CR 2012-02478; Misposition: Broken Valve Handle On PY-1P12F0731 Closes Valve, Seal Water Valve For 1N21F0245, dated February 15, 2012
- ECP 04-0270-00; Addition of an Alternative Decay Heat Removal (ADHR) System, Large Bore Service Water System Piping; Revision 0
- ECP 04-0270-01; Addition of an ADHR System, Pre-outage ADHR System Tie-ins; Revision 0
- Regulatory Applicability Determination 05-04616 for ECP 04-0270-00; Revision 1
- ECP 04-0270-05; Addition of Filter to Service Water System for ADHR; Revision 0

<u>1R19 Post-Maintenance Testing</u>

- SVI-M15-T1240A; Annulus Exhaust Gas Treatment System Train A Flow and Filter Operability Test; Revision 6; dated January 7, 2012

- WO 200256861; Replace Actuator; dated January 7 , 2012
- WO 200218344; Replace Hydromotor; dated January 7, 2012
- WO 200333313; MERP Replace Utility Station w/ NUS; dated January 7, 2012
- WO 200326453; Replace Disconnect Switch EF1B08-L with Approved Equivalent; dated January 7, 2012
- PTI-M15-P0002-A; AEGT Train A Flow System Functional Test; Revision 5; dated January 7, 2012
- WO 200326424; Replace Size 2 Starter; dated January 8, 2012
- CR 2012-00364; AEGTS Flow at 1M15K060A Flow Meter Noted 150 cfm Higher Than Actual Flow by Traverse; dated January 9, 2012
- CR 2012-00764; Order 200414346 Has The Wrong Grease Listed In The Work Steps For The Lubrication Of The Replacement HPCS Water Leg Pump Motor; dated January 17, 2012
- WO 200414376; Lube Water Leg Pump/Motor Inspect Coupling
- WO 200417153; Replace Normally Energized Agastat Relay 1G43-074G
- WO 200329022; “New PM” Replace Motor
- SVI-E22-T2002; HPCS Waterleg Pump and Associated Valves Cold Shutdown Operability Test; Revision 17; dated January 21, 2012
- PTI-E51-P0003; RCIC Terry Turbine Overspeed Trip Test; Revision 8; dated February 3, 2012
- WO 200464506; Change Oil/Filter/Inspect RCIC Turbine; Revision 0; dated January 31, 2012
- WO 200416982; Clean/Inspect RCIC Governor Valve Linkage; Revision 0; dated January 29, 2012
- PTI-E51-T2001; RCIC Pump and Valve Operability Test; Revision 36; dated February 5, 2012
- Drawing 302-0632-00000; Reactor Core Isolation Cooling System; Revision LL
- Drawing 302-0631-00000; Reactor Core Isolation Cooling System; Revision EE
- WO 200473748; Replace Hub on 1M43C0002C; Revision A1
- WO 200495661; Replace Hub on 1M43C0001B; Revision A2
- CR 2012-03767; Div 1 DG Rm Supply Fan 1A Recirc Air Damper Failed to Operate; dated March 11, 2012
- CR 2012-03840; Miscommunication of Emergency Diesel Generator Ventilation Fan Air Flow Compensation Requirements; dated March 12, 2012
- CR 2012-3919; Incomplete PMT Documentation in Work Order Results in Delay in Restoring M43 1A Fan; dated March 13, 2012
- CR 2012-03974; OCC Improvement Opportunity Identified in Establishing PMT Requirements for M43 Diesel Generator Building Fans; dated March 14, 2012
- CR 2012-04022; Human Error Precursor During Diesel Fan Post Maintenance Testing; dated March 15, 2012
- CR 2012-04123; The Post Maintenance That Is Required in FTI-F-0036 Attachment 2 Was Not Specified in the 1M43 Fan Hub Replacement Orders; dated March 16, 2012
- CR 2012-04275; Immediate Investigation for Service Water Pump ‘B’ Breaker Trip during Post Maintenance Testing; dated March 28, 2012
- CR 2012-04503; Vendor Thermocouples for Service Water Pump ‘B’ are Rolled; dated March 24, 2012
- CR 2012-04297; Service Water Pump ‘B’ Failed to Start During PMT; dated March 20, 2012
- CR 2012-04275; Breaker XH1203 for SW Pump ‘B’ did not Close on Demand; dated March 20, 2012
- CR 2012-04434; Secondary Disconnect in Cubicle XH1203 is Damaged; dated March 22, 2012
- Immediate Investigation for CR 2012-04275, Service Water Pump Breaker Trip; dated March 28, 2012

1R20 Forced Outage

- CR 2012-03231; Manual Reactor Scram 1-12-01 Occurred at 02:24 March 1, 2012; dated March 1, 2012
- Maintenance Rule Basis Document, System N43; Revision 0
- Event Notification; Manual Reactor Protection System Actuation Due to Automatic Turbine Runback; dated March 1, 2012
- Dwg 302-0361-00000; Generator Stator Winding Cooling Water System; Revision N
- CR 2012-02907; Gage Calibration task for N32 Presents too much Risk to On-Line Plant Operations to Perform as Written; dated February 24, 2012
- CR 2012-04166; Improvement Opportunities Identified During Critique of Stator Water Cooling Forced Outage; dated March 18, 2012
- CR 2012-03232; RWCU Backwash Transfer Pump has no Output; dated March 1, 2012
- CR 2012-03250; MCC F1D08 Transferred to its Emergency Source During the Plant Scram; dated March 1, 2012
- CR 2012-03284; Control Rod 54-23 had Position Indication Problems Post Reactor Scram; dated March 1, 2012
- CR 2012-03289; Post Event Performance Critique of I&C Following Generator Runback and Manual Scram; dated March 1, 2012
- CR 2012-03292; 12 Control Rods had Invalid Scram Times following the March 1st, 2012 Manual Scram; dated March 1, 2012
- CR 2012-03298; Determined that RWCU Backwash Pump Discharge Pressure is NOT low During Troubleshooting; dated March 1, 2012
- CR 2012-03309; RWCU Pumps A & B Tripped Following Reactor Scram; dated March 1, 2012
- CR 2012-03315; IRM A Failed to Insert Initially after Reactor Scram 1-12-01; dated March 1, 2012
- CR 2012-03316; After Scram, F1D08 will not Transfer Back to Normal Source; dated March 2, 2012
- CR 2012-03269; Blown Fuses on RFPT “A” Circuit; dated March 1, 2012
- CR 2012-03293; While Restoring 1N43R0050 to Service, Plant Received a Runback Signal; dated March 1, 2012

1R22 Surveillance Testing

- SVI-E21-T2001; Low Pressure Core Spray Pump and Valve Operability Test; Revision 24; dated January 6, 2012
- SVI-C41-T2001; Standby Liquid Control A Pump and Valve Operability Test; Revision 17; dated January 6, 2012
- SVI-P42-T2001B; Emergency Closed Cooling System B Pump and Valve Operability Test; Revision 11; dated February 11, 2012
- SVI-R43-T1217; Diesel Generator Start and Load Division 1; dated February 29, 2012
- SVI-C51-T0030-E; APRM E Channel Calibration for 1C51-K605E; Revision 12; dated March 19, 2012

1EP6 Drill Evaluation - Training Observation

- Simulator Exercise Guide OTLC-3058201206_PY-SGC1; Cycle 6 2012 Evaluated Scenario C1; Revision 0; dated January 3, 2012
- CR 2012-01952; Shift Manager Declared two Alerts During the Evaluated Simulator Session in Training; dated February 6, 2012

4OA1 Performance Indicator Verification

- NOBP-LP-4012-01, Rev 2; Unplanned Scrams per 7,000 Critical Hours; January 2011 through December 2011
- NOBP-LP-4012-02, Rev 3; Unplanned Scrams with Complications; January 2011 through December 2011
- NOBP-LP-4012-03, Rev 2; Unplanned Power Changes per 7,000 Critical Hours Input; January 2011 through December 2011

4OA2 Problem Identification and Resolution

- CR 2012-00098; Annulus Exhaust Gas treatment Charcoal Testing Schedule – Minimizing Out of Service Time; dated January 4, 2012
- CR 2012-01842; Inadequate Work Package Documentation of Work for Containment Coatings; dated February 3, 2012
- CR 2012-02121; Coatings Performed in Aux Building without VOC Evaluation or Work Order; dated February 9, 2012
- NOP-ER-3201; Control of Carbon Filter Contaminants; Revision 1
- PAP-1126; Ventilation Filter Testing Program (VFTP); Revision 0
- SVI-M15-T3015; Annulus Exhaust Gas Treatment Charcoal Adsorber Operability Test and Plenum Inspection; Revision 9; dated November 29, 2010 through December 5, 2011
- VOC Loading Spreadsheet; dated February 16, 2012
- CR 2011-05935; Personnel Contamination Events Trend for Construction Services; dated November 26, 2011
- CR 2011-06065; Negative Low Level Reactivity Event Trend for Control Rod System; dated November 29, 2011
- CR 2011-06492; Adverse Trend in PCEs with 5 in last 4 Weeks; dated December 7, 2011
- CR 2011-06740; Accountability Shortfalls in Station Work Management Process Implementation; dated December 13, 2011
- CR 2011-06979; Work Group Clearance Program Violation Trend; dated December 16, 2011
- CR 2011-96126; Site Protection Human Performance Trend Evaluation; dated June 8, 2011
- CR 2011-98228; Clearance Trend – Level 4 – Clearance Revisions Required; dated July 26, 2011

4OA3 Follow-up of Events and Notices of Enforcement Discretion

- LER 05000440/2011-002-01; Condition Prohibited by Technical Specifications and Plant Shutdown Due to Unit 1 Startup Transformer Issues; dated February 8, 2012
- 50.72 Event Report for Postulated Flooding Scenario Leads to Unanalyzed Condition ; dated December 7, 2011
- LER 05000440/2011-004-01; Flooding Calculation Deficiency Results in Unanalyzed Condition; dated March 15, 2012
- LER 05000440/2011-004-00; Flooding Calculation Deficiency Results in Unanalyzed Condition; dated January 16, 2012
- ONI-P41; Loss of Service Water; Revision 14
- ARI-H13-P970-0001-F8; Control Complex Laundry Sump Water Level Hi; Revision 16
- CR 2011-05217; Internal Flooding Calculation Assumptions Did Not Specify the Actions that Need to be Taken; dated November 10, 2011

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
AEGTS	annulus exhaust gas treatment system
APRM	average power range monitor
CAP	corrective action program
CR	condition report
CFR	*Code of Federal Regulations*
DG	diesel generator
EDG	emergency diesel generator
ESW	emergency service water
HPCS	high-pressure core spray
ICDPD	Incremental Core Damage Probability Deficit
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
LCO	limiting condition for operation
LER	licensee event report
LPCS	low-pressure core spray
NCV	non-cited violation
NEI	Nuclear Energy Institute
NOP	Nuclear Operating Procedure
NRC	Nuclear Regulatory Commission
PI	performance indicator
PM	post-maintenance
RHR	residual heat removal
RCIC	reactor core isolation cooling
SDP	Significance Determination Process
SPAR	Standardized Plant Analysis Risk
SUT	startup transformer
TS	Technical Specifications
USAR	Updated Safety Analysis Report

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

Sincerely,

/RA/

John B. Giessner, Chief
Branch 4
Division of Reactor Projects

Docket No. 50-440
License No. NPF-58

Enclosure: Inspection Report 05000440/2012002
w/Attachment: Supplemental Information

DOCUMENT NAME: G:\DRPIII\Perry\Perry 2012 002.docx
☐ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☐ Non-Sensitive
To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII							
NAME	JGiessner:dtp							
DATE	04/24/12							

OFFICIAL RECORD COPY

Letter to V. Kaminskas from J. Giessner dated April 24, 2012.

SUBJECT: PERRY NUCLEAR POWER PLANT NRC INTEGRATED INSPECTION REPORT 05000440/2012002

DISTRIBUTION:
Shawn Williams
RidsNrrPMPerry Resource
RidsNrrDorlLpl3-2 Resource
RidsNrrDirsIrib Resource
Chuck Casto
Cynthia Pederson
Jennifer Uhle
Steven Orth
Jared Heck
Allan Barker
Carole Ariano
Linda Linn
DRPIII
DRSIII
Patricia Buckley
Tammy Tomczak
ROPreports.Resource@nrc.gov