



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

July 23, 2012

Mr. Robert Smith
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

**SUBJECT: PILGRIM NUCLEAR POWER STATION - NRC INTEGRATED INSPECTION
REPORT 05000293/2012003**

Dear Mr. Smith:

On June 30, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Pilgrim Nuclear Power Station (PNPS). The enclosed inspection report documents the inspection results, which were discussed on July 18, 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.

This report documents one NRC-identified finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of its very low safety significance, and because it has been entered into your corrective action program (CAP), the NRC is treating this finding as a non-cited violation (NCV), consistent with Section 2.3.2 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a written response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at PNPS. In addition, if you disagree with the cross-cutting aspect assigned to the finding 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 I, and the NRC Senior Resident Inspector at PNPS.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) will be available electronically for public inspection in the

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Sincerely,

/RA/

Ronald R. Bellamy, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Docket Nos.: 50-293
License Nos.: DPR-35

Enclosure: Inspection Report 05000293/2012003
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.: 50-293

License Nos.: DPR-35

Report No.: 05000293/2012003

Licensee: Entergy Nuclear Operations, Inc.

Facility: Pilgrim Nuclear Power Station (PNPS)

Location: 600 Rocky Hill Road
Plymouth, MA 02360

Dates: April 1, 2012 through June 30, 2012

Inspectors: M. Schneider, Senior Resident Inspector, Division of
Reactor Projects (DRP)
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J. D'Antonio, Operations Engineer, DRS

Enclosure

Approved By: Ronald R. Bellamy, Chief
Reactor Projects Branch 5
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000293/2012003; 04/01/2012–06/30/2012; Pilgrim Nuclear Power Station; Flood Protection Measures

This report covered a three-month period of inspection by resident inspectors and announced inspections performed by regional inspectors. The inspectors identified one finding of very low safety significance (Green) which was a non-cited violation (NCV). 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 aspect for the finding was determined using IMC 0310, "Components Within Cross-Cutting Areas." Findings for which the SDP does not apply may be Green, or may 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.

Cornerstone: Mitigating Systems

Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control", because Entergy did not verify the adequacy of the design of the Motor Control Center (MCC) B-18 enclosure. Specifically, Entergy had not previously evaluated the susceptibility of MCC B-18 to internal flooding from a potential pipe break by the use of calculational methods or by the performance of design reviews. Entergy entered this issue in the corrective action program (CR-PNP-2012-1351).

The performance deficiency was determined to be more than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone's objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings" and IMC 0609 Appendix A, Exhibit 2, "Mitigating Systems Screening." The finding was determined to be of very low safety significance (Green) because the finding was a design deficiency and did not represent a loss of system and/or function or the loss of a single train for greater than its Technical Specification outage time. The finding does not have a cross-cutting aspect since the verification of the MCC B18 design is not indicative of current licensee performance. Entergy's current design change procedures require an evaluation of flooding vulnerabilities for new modifications. (Section 1R06)

REPORT DETAILS

Summary of Plant Status

Pilgrim Nuclear Power Station (Pilgrim) began the inspection period operating at 100 percent reactor power. On April 13, 2012, operators reduced reactor power to 80 percent to support a control rod pattern adjustment and maintenance on the 'A' Reactor Feedpump. Pilgrim returned to 100 percent reactor power later that same day. On May 22, operators reduced reactor power to 50 percent to perform a thermal backwash of the main condenser. During the downpower, condenser vacuum degraded and operators initiated a manual scram of the reactor before vacuum had degraded to the turbine generator trip setpoint. Pilgrim entered a forced outage to investigate and correct the cause of the degrading condenser vacuum. On May 27, Pilgrim returned to 100 percent reactor power. On June 25, operators reduced reactor power to 50 percent to perform a thermal backwash of the main condenser. On June 26, Pilgrim returned to 100 percent reactor power. On June 27, operators reduced reactor power to 80 percent to perform a control rod pattern adjustment and returned to 100 percent reactor power later that same day. On June 30, operators reduced reactor power to 35 percent to investigate a generator field ground alarm and remained at 35 percent reactor power through the end of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 2 samples)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of severe weather preparations during the weekend of June 9. The inspectors evaluated the site's readiness for the onset of the hurricane season, including the readiness of three risk-significant systems, the intake structure, the Emergency Diesel Generators (EDGs), and the Station Blackout (SBO) Diesel Generator. The inspectors also performed a walkdown of areas adjacent to the switchyard, the Unit Auxiliary Transformer, Shutdown Transformer, and Main Transformer. The inspectors examined selected equipment and supporting structures to determine if they were configured in accordance with Entergy procedures and if adequate controls were in place to ensure functionality of the systems. The inspectors performed partial walkdowns of the intake structure, the EDG enclosures, and the SBO enclosure to determine the adequacy of equipment protection from the effects of hurricanes. Documents reviewed for each section of this inspection report are listed in the Attachment.

b. Findings

No findings were identified.

.2 Summer Readiness of Offsite and Alternate Alternating Current (AC) Power Systems

a. Inspection Scope

The inspectors performed a review of plant features and procedures for the operation and continued availability of the offsite and alternate AC power system to evaluate readiness of the systems prior to seasonal high grid loading. The inspectors reviewed Entergy's procedures affecting these areas and the communication protocols between the transmission system operator and Entergy. This review focused on changes to the established program and the material condition of the offsite and alternate AC power equipment. The inspectors assessed whether Entergy established and implemented appropriate procedures and protocols to monitor and maintain availability and reliability of both the offsite AC power system and the onsite alternate AC power system. The inspectors evaluated the material condition of the associated equipment by reviewing open work orders and walking down portions of the offsite and AC power systems.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial System Walkdowns (71111.04Q – 4 samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- 'A' EDG during maintenance on the High Pressure Coolant Injection (HPCI) system and with severe weather pending
- HPCI system following a plant startup
- Both trains of the Standby Liquid Control system
- SBO Diesel Generator following switchyard maintenance on 345 kV Line 355

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the Updated Final Safety Analysis Report (UFSAR), technical specifications (TS), work orders (WO), condition reports (CR), and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance or their intended safety functions. The inspectors also performed field walkdowns of accessible portions of the systems to verify that system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether Entergy had properly identified equipment issues and entered them into the corrective action program (CAP) for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

1R05 Fire Protection

.1 Resident Inspector Quarterly Walkdowns (71111.05Q – 5 samples)

a. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that Entergy controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that fire protection identification and suppression equipment were available for use as specified in the area pre-fire plan, and that passive fire barriers were maintained in good material condition. The inspectors also verified that station personnel implemented compensatory measures for out of service, degraded, or inoperable fire protection equipment, as applicable, in accordance with procedures.

- Fire Area 1.9, Fire Zone 1.15, Standby Liquid Control System Room
- Fire Area 1.10, Fire Zone 1.23, Standby Gas Treatment System Room
- Fire Area 3.1, Fire Zone 3.1, Main Control Room
- Fire Area 4.3, Fire Zone 4.3, 'A' Train EDG
- SBO Generator Enclosure

b. Findings

No findings were identified.

.2 Fire Protection – Drill Observation (71111.05A – 1 sample)

a. Inspection Scope

The inspectors observed an announced fire drill in the one story Butler Building. The drill was performed in accordance with procedure EN-TQ-125, Rev 1, "Fire Brigade Drills." The inspectors observed performance of the fire brigade personnel to determine whether Entergy's fire fighting pre-plan strategies were utilized, the pre-planned drill scenario was followed, and the drill objectives were met. The inspectors confirmed that protective clothing and breathing apparatus were donned; sufficient firefighting equipment was brought to the scene; the fire brigade leader's fire fighting directions were clear; and communications with the plant operators and between fire brigade members were effective. The inspectors observed the drill critique to determine whether areas to improve fire brigade performance were identified.

b. Findings

No findings were identified.

1R06 Flood Protection Measures (711111.06 – 2 samples)

.1 Internal Flooding Review

a. Inspection Scope

The inspectors walked down the 23' elevation of the Reactor Building and associated flood propagation pathways to assess the effectiveness of Entergy's internal flood control measures. In addition, the inspectors walked down the outside and inside of the safety related motor control centers located on the 23' elevation of the Reactor Building. The inspectors assessed the condition of curbing and selected flood pathways on the 23' elevation of the Reactor Building. The inspectors also evaluated whether potential sources of internal flooding were analyzed.

b. Findings

Introduction: The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control", because Entergy did not verify the adequacy of the design of the Motor Control Center (MCC) B-18 enclosure. Specifically, Entergy had not previously evaluated the susceptibility of MCC B-18 to internal flooding from a potential pipe break by the use of calculational methods or by the performance of design reviews.

Description: The inspectors reviewed the internal flooding evaluation contained in Pilgrim Design Change (PDC) 84-18, Revision 18, "Environmental Enclosures for Motor Control Centers." PDC 84-18 discusses de-energization caused by two sources of flooding, external and internal. It concluded that flooding could cause multiple grounds and short circuits to the safety related breaker cubicles. Concerning internal flooding, PDC 84-18 discusses that "rupture of process lines within the enclosure could provide the second source of flooding. The lines are generally of small diameter and any rupture could be readily detected prior to flooding to significant levels. This detection can be accomplished by routine operator inspection (tours) or inclusion of a leak detection system in the MCCs as is presently planned."

The inspectors inquired about flood detection and found that no leak detection system had been installed. Operator tours are performed within each MCC once per shift (12 hours). The inspectors then questioned the bases for this time period being acceptable to detect rising water level from an internal flood in the MCC enclosure, including whether a calculation had been performed to ascertain how long it would take for the volume of the enclosure to flood with water to the lowest breaker cubicles. Entergy determined that no calculation or review had been performed. Entergy walked down each MCC (D7, D8, D9, B17, B18, and B20) for potential sources of internal flooding in addition to the process lines discussed in PDC 84-18, and generated condition report CR-PNP-2012-1351 to document that a 2 inch demineralized water line transverses through MCC B-18 which contains 'B' train safety-related breakers. A drawing review was then performed, however, Entergy was unable to determine where this demineralized water line was located in a drawing or schematic. Entergy also determined that no drain exists in MCC B-18 and that the 2 inch line cannot be isolated by operator action. Entergy evaluated the immediate operability of systems potentially affected by the postulated flooding scenario and performed an additional evaluation and seismic calculation of the pipe. Per their evaluation, the pipe would withstand the

maximum acceleration from a design basis seismic event and thus not rupture during the event. The inspectors reviewed Entergy's operability evaluation and determined the conclusion was reasonable.

Analysis: The inspectors determined that Entergy did not verify the adequacy of the design of MCC B-18 by use of calculational methods or by the performance of design reviews with respect to ensuring that safety-related equipment would be adequately protected from a postulated internal flood within MCC B-18. In addition, the inspectors determined that the performance deficiency was reasonably within Entergy's ability to foresee and correct. This conclusion was based on available opportunities to review internal flooding scenarios including a Seismic Quality Utility Group (SQUG) review performed in the 1990's. This condition did not impact the regulatory process and did not contribute to any actual consequences; therefore, Traditional Enforcement did not apply. The performance deficiency was determined to be more than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone's objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings" and IMC 0609 Appendix A, Exhibit 2, "Mitigating Systems Screening." The finding was determined to be of very low safety significance (Green) because the finding was a design deficiency and did not represent a loss of system and/or function or the loss of a single train for greater than its Technical Specification outage time. The finding does not have a cross-cutting aspect since the verification of the MCC B18 design is not indicative of current licensee performance. Entergy's current design change procedures require an evaluation of flooding vulnerabilities for new modifications.

Enforcement: 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures shall be established to assure that the design basis be correctly translated into specifications, drawings, procedures, and instructions and that these measures shall provide for verifying or checking the adequacy of design by the performance of design reviews, or by the use of alternate or simplified calculational methods. Contrary to the above, Entergy did not verify the adequacy of the design of MCC B-18 with respect to internal flooding nor was the design basis translated into specifications or drawings. Entergy's corrective actions included evaluating the design basis of MCC B-18 by use of calculational methods. Future corrective actions include Entergy performing a comprehensive plant-wide review of their design basis with respect to seismic and flooding issues and, if needed, reconstituting their design basis following this review. Because this finding is of very low safety significance, and Entergy has entered it into their corrective action program (CR-PNP-2012-1351), this violation is being treated as an NCV, consistent with the NRC's Enforcement Policy. **(NCV 05000293/2012003-01, Failure to Verify the Adequacy of the Design of MCC-B18 with Respect to Internal Flooding)**

.2 Underground Cable Inspection

a. Inspection Scope

The inspectors reviewed one sample of flood protection measures affecting cables located in underground manholes. The inspectors selected cable pits '1', '3', and 'L' that contain underground safety and non-safety related power cables. The inspectors monitored Entergy's maintenance inspection and dewatering activities associated with

each manhole to evaluate the as-found condition and corrective actions. The inspectors assessed the condition of power cables, splices, and supports. The inspectors also reviewed Entergy's Cable Reliability Program.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program (71111.11Q – 2 samples)

.1 Regualification Review by Resident Inspectors

a. Inspection Scope

The inspectors observed licensed operator simulator training on April 30, 2012, which included Loss of Feedwater Heating, Operating Basis Earthquake, Loss of Offsite Power, and SBO Scenarios. The inspectors evaluated operator performance during the simulated events and verified completion of risk significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the Control Room Supervisor (CRS). The inspectors verified the accuracy and timeliness of the emergency classifications made by the Shift Manager and the technical specification action statements identified by the Shift Control Room Engineer and the CRS. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems. Finally, the inspectors performed a simulator fidelity review to determine if the arrangement of the simulator instrumentation, controls, and tagging closely paralleled that of the control room.

b. Findings

No findings were identified.

.2 Main Control Room Review by Resident Inspectors

a. Inspection Scope

The inspectors observed main control room activities during a control rod pattern adjustment, the loss of the 23 kV offsite line, a thermal backwash and subsequent reactor scram, and a second thermal backwash. See section 4OA3 for specific discussion of these activities. The inspectors reviewed procedural guidance for station power changes and the power maneuver plan, and observed control room conduct, and control of these evolutions.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – 2 samples)a. Inspection Scope

The inspectors reviewed the two samples listed below for items such as: (1) appropriate work practices; (2) identifying and addressing common cause failures; (3) scoping in accordance with 10 CFR 50.65 paragraph (b) of the Maintenance Rule; (4) characterizing reliability issues for performance; (5) trending key parameters for condition monitoring; (6) charging unavailability for performance; (7) classification and reclassification in accordance with 10 CFR 50.65 paragraphs (a)(1) or (a)(2); and (8) appropriateness of performance criteria for structures, systems, and components (SSCs)/functions classified as paragraph (a)(2) and/or appropriateness and adequacy of goals and corrective actions for SSCs/functions classified as paragraph (a)(1).

- Main Feedwater Check Valve Functional Failure Evaluation
- Reactor Core Isolation Cooling Motor Operated Valve Functional Failure Evaluation

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 5 samples)a. Inspection Scope

The inspectors reviewed station evaluation and management of plant risk for the maintenance and emergent work activities listed below to verify that Entergy performed the appropriate risk assessments prior to removing equipment for work. The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that Entergy personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When Entergy performed emergent work, the inspectors verified that Operations personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work and discussed the results of the assessment with the station's probabilistic risk analyst and Operations personnel to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Yellow Risk during Analog Trip System Unit Calibration
- Yellow Risk for Cable Spreading Room Halon Out-of-Service
- Yellow Risk for the High Pressure Coolant Injection System Out-of-Service
- Yellow Risk for the Startup Transformer Out-of-Service and Condensate Storage Tank Diving
- Shutdown Risk for Forced Outage 19-4

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 5 samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions:

- 'B' EDG governor speed setting is incorrect
- High Pressure Coolant Injection Turbine Exhaust Check Valve 2301-CK-74 not seating properly
- Motor Control Center B-14 may be overloaded during operation of three Reactor Building Closed Cooling Water pumps
- Recirculation Pump 'A' seal leakage alarm received
- Security Diesel to support Appendix R emergency lighting oil pressure, oil temperature, and coolant temperature out of band

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations to assess whether technical specification (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 UFSAR to Entergy 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 by Entergy. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 3 samples)

.1 Temporary Modification to Remove Thermal Overloads for Salt Service Water (SSW) Pumps A, B, C, D, and E

a. Inspection Scope

The inspectors reviewed temporary modification Engineering Change (EC) 31958, 31959, 31960, 31953, and 31957, "Jumper out thermal overload heater trip for SSW pumps P-208-A, B, C, D, & E", to determine whether the performance capability of the SSW system had been degraded through the modification. The inspectors reviewed Control Room drawings, relevant condition reports, and work orders to ensure the temporary modification did not adversely affect the SSW system. The inspectors reviewed the annotated drawings to determine whether they properly reflected the temporary modification. The inspectors also walked down the SSW breaker cubicles to review the installed modification.

b. Findings

No findings were identified.

.2 Permanent Modification to Add Isolation Valves to Turbine Building Closed Cooling Water (TBCCW) Supply to 'C' Reactor Feedwater Pump (RFP) Mechanical Seals

a. Inspection Scope

The inspectors evaluated a modification to add isolation valves to Pilgrim's TBCCW supply to the 'C' RFP mechanical seals. This will be implemented by engineering change EC5000034329, Rev. 0, "Add Isolation Valves for TBCCW Cooling Water Jackets to Feed Pump P-103C Mechanical Seal Cartridges." The inspectors verified that the design bases, licensing bases, and performance capability of the affected systems would not be degraded by the modification. In addition, the inspectors reviewed modification documents associated with the design change.

b. Findings

No findings were identified.

.3 Permanent Modification to Increase Condensate Pump Motor P-101A Alarm Setpoint

a. Inspection Scope

The inspectors reviewed permanent modification ERCN 05110052, "Increase Condensate Pump Motor P-101A Alarm Setpoint", to determine whether the licensing basis and performance capability of the P-101A Condensate pump had been degraded through the modification. The inspectors reviewed the change notice package and attachments, maintenance rule SSC basis document for the Condensate and Feedwater systems, and interviewed the electrical, mechanical, and system engineers responsible for the modification.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 5 samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedures to verify that the procedures adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure was consistent with the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- Replace 'A' Reactor Water Clean-Up pump seal
- Replace 'B' Reactor Building Closed Cooling Water pump seal
- Replace High Pressure Coolant Injection (HPCI) Gland Seal Vacuum Pump Motor
- Replace HPCI Electronic Governor Regulator
- Replace the magnetic assembly and armature of Relay 16A-K8A affecting the Recirculation pump trip logic

b. Findings

No findings were identified.

1R20 Refueling and Outage Activities (71111.20 – 1 sample)

Forced Outage 19-4

a. Inspection Scope

The inspectors reviewed the outage plan and shutdown risk assessments for a forced outage performed from May 22 through May 25, 2012. The outage was performed following a reactor scram due to degrading condenser vacuum. During this outage, the inspectors observed plant shutdown and start-up, as well as the outage activities listed below:

- Hot Shutdown Cooling Control
- Shutdown Risk Assessment and Risk Management
- Implementation of TSs
- Outage Control Center Activities
- Plant Startup
- Licensee identification and resolution of problems.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 7 samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant structures, systems, and components (SSCs) to assess whether test results satisfied TS, the UFSAR, and Entergy's procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied. Upon test completion, the inspectors considered whether the test results supported that equipment was capable of performing the required safety functions. The inspectors reviewed the following surveillance tests.

- 'B' Control Room High Efficiency Air Filtration system monthly surveillance
- Drywell to Suppression Chamber Vacuum Breaker leakage rate test
- HPCI biennial inservice test (IST)
- Logic System Functional Test of the 'B' EDG
- Low Pressure Coolant Injection System Loop B operability IST
- Reactor Coolant Leakage Detection surveillance
- Standby Gas Treatment System Exhaust Fan Logic Test

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness (EP)

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

a. Inspection Scope

The Nuclear Security Incident Response (NSIR) headquarters staff performed an in-office review of Pilgrim Nuclear Power Station Emergency Plan, Revision 38, located under ADAMS accession number ML 12053A206 as listed in the Attachment. Entergy transmitted the Emergency Plan revision to the NRC pursuant to the requirements of 10 CFR 50.47(b). The NRC review was not documented in a safety evaluation report and does not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06 – 1 sample)

Simulator Training Evaluation

a. Inspection Scope

The inspectors observed a licensed operator requalification training simulator exercise on April 30, 2012. The inspectors evaluated operator performance in the simulator for a Loss of Feedwater heating, Earthquake, Loss of Offsite Power, and Station Blackout which required the declaration of an alert and subsequent escalation to a Site Area Emergency.

b. Findings

No findings were identified.

2. RADIATION SAFETY (RS)

Cornerstones: Occupational and Public Radiation Safety

2RS01 Radioactive Hazard Assessment and Exposure Controls (71124.01)

a. Inspection Scope

On May 22, the inspector observed radiation protection technicians respond to a plant trip. The trip was manually initiated by operators due to a decreasing vacuum in the main condenser. The inspector observed technicians promptly implement procedure 6.1.220, entitled, "Radiological Controls for High Risk Evolutions." Actions taken by the technicians included conducting radiological surveys of the hydraulic control units (HCU) and measuring dose rates, airborne concentrations, and contamination levels in various plant areas. Following these actions, radiation protection supervision determined if increased monitoring was needed for the affected areas, revising Radiation Work Permits to reflect any changes in dose rates, and changing electronic dosimeter alarm set points. Implementation of these controls was reviewed against the criteria contained in 10 CFR Part 20, TSs, and Entergy's procedures.

Additionally, the inspector observed activities related to returning the 'B' Condensate Storage Tank (CST) to service following the plant trip. The 'B' CST was initially removed from service for cleaning. The inspector attended the job planning meeting, and reviewed the Radiation Work Permit (RWP) (2012-0091) and associated As Low as is Reasonably Achievable (ALARA) Plan (CST-AP-1), to determine if the radiological controls were appropriate for removing contaminated equipment and filters from the tank, and for performing tank closure inspections.

b. Findings

No findings were identified.

2RS03 In-Plant Airborne Radioactivity Control and Mitigation (71124.03)

This area was inspected May 21–24, to verify in-plant airborne concentrations were being controlled consistent with ALARA principles and that respiratory protection devices are properly used and maintained. The inspector used the requirements in 10 CFR Part 20; the guidance in Regulatory Guide 8.15, "Acceptable Programs for Respiratory Protection;" Regulatory Guide 8.25, "Air Sampling in the Workplace;" NUREG-0041, "Manual of Respiratory Protection Against Airborne Radioactive Material," TSs; and Entergy's procedures required by TSs as criteria for determining compliance.

.1 Inspection Planning

a. Inspection Scope

The inspector reviewed the UFSAR to identify areas of the plant designed as potential airborne radiation areas and any associated ventilation systems or airborne monitoring instrumentation. This review included instruments used to identify changing airborne radiological conditions such that actions to prevent an unplanned exposure could be

taken. The review included an overview of the respiratory protection program and a description of the types of devices used. The inspector reviewed the UFSAR, TSs, and emergency planning documents to identify location and quantity of respiratory protection devices stored for emergency use. The inspector reviewed Entergy's procedures for maintenance, inspection, and use of respiratory protection equipment including self-contained breathing apparatus, as well as procedures for air quality maintenance and for qualifying workers for using respirators. The inspector reviewed reported performance indicators to identify any related to unintended dose resulting from intakes of radioactive material.

b. Findings

No findings were identified.

.2 Engineering Controls

a. Inspection Scope

The inspector reviewed Entergy's use of permanent and temporary ventilation to determine whether Entergy uses ventilation systems as part of its engineering controls to control airborne radioactivity. The inspector reviewed procedural guidance for use of installed plant systems to reduce dose and assessed whether the systems are used, to the extent practicable, during high-risk activities.

The inspector selected the Control Room High Efficiency Air Filtration system (CRHEAFS) and evaluated whether operating parameters were consistent with maintaining concentrations of airborne radioactivity in the control room below the concentrations of an airborne area. The inspector reviewed related surveillance procedures, High Efficiency Particulate Absolute (HEPA)/charcoal filter test data, and test flow measurements to determine if operability criteria were met. The inspector walked down this system to assess material condition and its present operating configuration. The inspector determined that the system alert and high alarm set points for the associated radiation monitors, RM-1705-16 and RIS-1815-2A, were properly established. The inspector observed a control room operator walk through the actions to be taken should RM-1705-16 alarm.

The inspector reviewed airborne monitoring protocols by selecting three installed systems used to monitor and warn of changing airborne concentrations in the turbine building, reactor building, and on the refuel floor. The inspector observed a technician perform operability checks on these monitors which included AMS-4 monitors located in the Station Service Red Line (No. 2823), Refuel Floor area (No. 103), and reactor building truck lock (No. 2687). The inspector reviewed the calibration records and daily source check data for these instruments to determine if the alarm set points and sampling flow were properly established.

The inspector assessed Entergy's alpha monitoring and control program. The inspector evaluated the plant areas where alpha contamination was identified, the threshold criteria for alpha contamination levels for implementing various radiological controls, and the action levels for alpha-emitting airborne radio-nuclides requiring bioassay evaluations.

b. Findings

No findings were identified.

.3 Use of Respiratory Protection Devices

a. Inspection Scope

The inspector reviewed records of air testing for refilling self-contained breathing apparatus (SCBA) bottles to determine that the air used in these devices meets or exceeds Grade D quality.

The inspector selected five individuals, representative of each operating shift and assessed whether they were deemed qualified to use the devices by successfully passing an annual medical examination, respirator fit-test and relevant respiratory protection training. In addition, the inspector observed an individual being fit tested. The inspector confirmed that the tested individual had an annual medical examination, and completed relevant respiratory protection training. The inspector also reviewed training materials for using these respiratory protection devices.

b. Findings

No findings were identified.

.4 Self-Contained Breathing Apparatus (SCBA) for Emergency Use

a. Inspection Scope

The inspector reviewed the status and surveillance records of selected SCBAs staged in-plant for use during emergencies. The inspector reviewed Entergy's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions.

The inspector chose three SCBAs staged for use in the control room and two SCBAs staged for use in the operation support center. The inspector observed a technician perform monthly operational inspections of these SCBAs. The inspector assessed the physical condition of the device components and reviewed records of equipment inspection, maintenance, and testing of the vital components, including periodic air cylinder hydrostatic testing. The inspector determined that personnel assigned to refill bottles were trained and qualified for that task.

The inspector determined whether appropriate mask sizes and types are available for use. The inspector determined that on-shift operators had no facial hair that would interfere with the sealing of the mask to the face and that vision correction mask inserts were readily available.

b. Findings

No findings were identified.

.5 Problem Identification and Resolution

a. Inspection Scope

The inspector evaluated whether problems associated with the control and mitigation of in-plant airborne radioactivity were being identified by Entergy at an appropriate threshold and were properly addressed for resolution in Entergy's corrective action program. The inspector assessed whether the corrective actions were appropriate for a selected sample of problems involving airborne radioactivity and were appropriately documented by Entergy.

b. Findings

No findings were identified.

2RS04 Occupational Dose Assessment (71124.04)

This area was inspected May 21–24, to ensure occupational dose is appropriately monitored and assessed. The inspector used the requirements in 10 CFR Part 20; the guidance in Regulatory Guide 8.13, "Instructions Concerning Prenatal Radiation Exposures"; Regulatory Guide 8.36, "Radiation Dose to Embryo Fetus"; Regulatory Guide 8.40, "Methods for Measuring Effective Dose Equivalent from External Exposure"; TSs; and Entergy's procedures, required by TS, as criteria for determining compliance.

.1 Inspection Planning

a. Inspection Scope

The inspector reviewed the results of the Pilgrim radiation protection program audits and focus area self-assessments (FASA) related to internal and external dosimetry. The inspector reviewed the most recent Nuclear Utility Procurement Issues Committee (NUPIC) audit of Entergy's dosimetry provider/processor to determine the status of the vendor's National Voluntary Laboratory Accreditation Program (NVLAP).

A review was conducted of Entergy's procedures associated with dosimetry operations, including issuance/use of external dosimetry, assessment of internal dose, and evaluation of and dose assessment for radiological incidents.

The inspector evaluated Entergy's procedural requirements for determining when external dosimetry and internal dose assessments are required.

b. Findings

No findings were identified.

.2 External Dosimetry

a. Inspection Scope

The inspector determined that Entergy's dosimetry vendor, Landauer Inc., was NVLAP accredited and that the approved irradiation test categories for the optically stimulated luminescence (OSLD) personnel dosimeter used is consistent with the types and energies of the radiation present and the way the dosimeter is being used.

The inspector evaluated the onsite storage of dosimeters before issuance, during use, and before processing/reading. The inspector also reviewed the guidance provided to radiation workers with respect to care and storage of dosimeters.

The inspector assessed the use of electronic personal dosimeters to determine if Entergy uses a "bias factor" to address the response of the electronic personal dosimeter as compared to the dosimeter of legal record for situations when the electronic personal dosimeter is used to assign dose and whether the bias factor is based on sound technical principles.

The inspector reviewed the calibration records for electronic dosimeters in use to confirm the calibrations were current and appropriately performed.

b. Findings

No findings were identified.

.3 Internal Dosimetry

Routine Bioassay (In Vivo)

a. Inspection Scope

The inspector reviewed procedures used to assess the dose from internally deposited radionuclides using passive whole body counting equipment (FastScan). The inspector evaluated whether the procedures addressed methods for differentiating between internal and external contamination, the criteria for release of contaminated individuals, determining the route of intake and the assignment of dose.

The inspector reviewed the whole body count process to determine if the frequency of measurements were consistent with the biological half-life of the radionuclides available for intake. The inspector reviewed routine internal dose assessments obtained using whole body counting. Whole body counting results for personnel performing work during the spring 2011 refueling outage (RFO) were reviewed.

The inspector reviewed Entergy's evaluation for use of its portal radiation monitors as a passive monitoring system. The inspector determined that the instrument minimum detectable activities were adequate to determine the potential for internally deposited radionuclides.

The inspector selected four routine whole body counts and evaluated whether the counting system used had sufficient counting time/low background to ensure

appropriate sensitivity for the radionuclides of interest. The inspector reviewed the instrument's calibration records and radionuclide library used for the counting system to determine that it included the gamma-emitting radionuclides that exist at the site. The inspector evaluated how Entergy accounts for hard-to-detect radionuclides in their internal dose assessments.

b. Findings

No findings were identified.

Special Bioassay (In Vitro)

a. Inspection Scope

The inspector reviewed and assessed the adequacy of Entergy's program for performing urinalyses and fecal analyses of radionuclides including the collection and storage of samples. The inspector reviewed the dose assessment for divers, performing activities in the torus during the spring 2011 refueling outage. The inspector reviewed the results of the urinalysis for tritium intakes and associated dose calculations.

b. Findings

No findings were identified.

Internal Dose Assessment – Airborne Monitoring

a. Inspection Scope

The inspector reviewed Entergy's program for dose assessment based on airborne monitoring and calculations of derived air concentrations. The inspector determined that sampler flow rates and collection times for air sampling equipment were adequate to allow appropriate lower limits of detection to be obtained for the tracking of the Derived Air Concentrations (DAC). The inspector also reviewed the adequacy of procedural guidance to assess internal dose from inhalation of tritium.

b. Findings

No findings were identified.

.4 Special Dosimetric Situations

Declared Pregnant Workers

a. Inspection Scope

The inspector assessed how Entergy informs workers of the risks of radiation exposure to the embryo/fetus, the regulatory aspects of declaring a pregnancy, and the specific process to be used for monitoring and controlling exposure to a declared pregnant worker (DPW). Entergy had no declared pregnant workers during this inspection period.

b. Findings

No findings were identified.

Dosimeter Placement and Assessment of Effective Dose Equivalent for External Exposures

a. Inspection Scope

The inspector reviewed Entergy's methodology for monitoring external dose in non-uniform radiation fields or where large dose gradients exist. The inspector evaluated Entergy's criteria for determining when alternate monitoring, such as use of multi-badging, is to be implemented. The inspector reviewed selected dose assessments performed using multi-badging to evaluate whether the assessments were performed consistent with Entergy procedures and dosimetric standards.

b. Findings

No findings were identified.

Shallow Dose Equivalent

a. Inspection Scope

The inspector reviewed the procedures for calculating shallow dose equivalent adequacy. The inspector evaluated Entergy's method for calculating shallow dose equivalent from distributed skin contamination and for discrete radioactive particles, using the VARSKIN computer code and as directed by procedure EN-RP-203, "Dose Assessment."

b. Findings

No findings were identified.

Neutron Dose Assessment

a. Inspection Scope

The inspector evaluated Entergy's neutron dosimetry program, including dosimeter types and radiation survey instrumentation. Methods to monitor neutron dose included timing of work activities in measured neutron dose rates, and use of the CR-39 track etch chip in a personnel dosimeter. The inspector reviewed the results for determining neutron dose to personnel working in areas having neutron dose fields; e.g., working near the down-comers in the torus, or working near electrical penetrations near the drywell.

b. Findings

No findings were identified.

.5 Problem Identification and Resolution

a. Inspection Scope

The inspector assessed whether problems associated with occupational dose assessment are being identified by Entergy at an appropriate threshold and are properly addressed for resolution in the Entergy corrective action program. The inspector assessed the appropriateness of the corrective actions for a selected sample of problems documented by Entergy involving occupational dose assessment.

b. Findings

No findings were identified.

4. **OTHER ACTIVITIES**

4OA1 Performance Indicator (PI) Verification (71151 – 3 samples)

Cornerstone: Mitigating Systems and Barrier Integrity

a. Inspection Scope

The inspectors reviewed Performance Indicator (PI) data to determine the accuracy and completeness of the reported data. The review was accomplished by comparing reported PI data to confirmatory plant records and data available in plant logs, CRs, Licensee Event Reports (LERs), and NRC inspection reports. The acceptance criteria used for the review included Nuclear Energy Institute (NEI) 99-02, Revision 6, "Regulatory Assessment Performance Indicator Guidelines," and NUREG-1022, Revision 2, "Event Report Guidelines 10 CFR 50.73." The following performance indicators were reviewed:

- Barrier Integrity Cornerstone, Reactor Coolant System (RCS) Leakage from the first quarter of 2011 through the first quarter of 2012
- Barrier Integrity Cornerstone, Reactor Coolant Specific Activity from the first quarter of 2011 through the first quarter of 2012
- Mitigating System Cornerstone, Safety System Functional Failures from the first quarter of 2011 through the fourth quarter of 2011

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Review of Items Entered into the Corrective Action Program (CAP)

a. Inspection Scope

The inspectors performed a screening of each item entered into Entergy's corrective action program. This review was accomplished by reviewing printouts of each condition

report, attending daily screening meetings and/or accessing Entergy's database. The purpose of this review was to identify conditions such as repetitive equipment failures or human performance issues that might warrant additional follow-up.

b. Findings and Observations

No findings were identified.

.2 Annual Sample: Spent Fuel Pool Tell Tale Drain Leakage (1 sample)

a. Inspection Scope

The inspectors selected an issue involving leakage from Pilgrim's spent fuel pool liner tell tale drain as an inspection sample for in-depth review to assess the corrective actions taken by Entergy to address this long-standing issue. The leakage had been documented in multiple condition reports (CR) dating back to 1987. The most recent CR (CR-PNP-2011-5777) specified corrective actions, one of which was for Operations to institute an Operational Decision Making Issue with trigger points and associated actions to take if leakage exceeded certain thresholds.

The inspectors reviewed CRs, engineering evaluations, leakage data, and interviewed plant personnel to assess Entergy's problem identification, evaluation, and corrective action effectiveness with respect to their spent fuel pool tell tale drain leakage. Additionally, the inspectors reviewed the technical specifications and UFSAR to assess whether the leakage posed a threat to the minimum spent fuel pool water level during a loss of offsite power event. The inspectors subsequently walked down the spent fuel pool to assess its present condition.

b. Findings and Observations

No findings were identified.

Over the years at Pilgrim, there have been documented instances of spent fuel pool liner tell tale drain leakage. During Pilgrim's refueling outage (RFO-18) in 2011, system engineering detected a step change in leakage. Currently, leakage rates have been determined to be approximately 50ml/min. Entergy monitors leakage daily and has the make-up capability of 1,100 gal/min (approximately 4,163,000 ml/min) using their Condensate Transfer System.

Although leakage levels have been monitored and have been small compared to the volume in the pool and makeup capability, the issue has been long standing with no apparent fix in place nor any planned in the future. The inspectors, however, have concluded that since the issue is being monitored by system engineering and is captured in the corrective action program, Entergy's actions are appropriate.

.3 Annual Sample: Review of Spent Fuel Pool (SFP) Calculation Error Documented in CR-PNP-2012-2046 (1 sample)

a. Inspection Scope

The inspectors selected Condition Report, CR-PNP-2012-2046, which documented an incorrect support configuration assumption in a calculation supporting the re-rack basis for the Spent Fuel Pool. The inspectors assessed Entergy's operability evaluation, extent of condition review, and whether the planned or completed actions were appropriate. Additionally, the inspectors reviewed a revised calculation generated by Holtec and Entergy's assessment of the revised calculation. Finally, the inspectors utilized NRC Headquarters experts to support the technical reviews.

b. Findings and Observations

No findings were identified.

The inspectors determined that the immediate actions taken in response to this calculational error were appropriate. The inspectors and NRC Headquarters technical experts determined that the basis for the acceptability of the SFP contained in the operability evaluation of CR-PNP-2012-2046 was sound.

.4 Semi Annual Review of Trends

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, as required by Inspection Procedure 71152, "Problem Identification and Resolution," to identify trends that might indicate the existence of more significant safety issues. In this review, the inspectors included repetitive or closely-related issues that may have been documented by Entergy outside of the corrective action program, such as trend reports, PIs, major equipment problem lists, system health reports, maintenance rule assessments, and maintenance or corrective action program backlogs. The inspectors also reviewed Entergy's corrective action program database to assess condition reports for their contribution to trends. The inspectors reviewed Entergy's quarterly trend reports to verify that Entergy personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

Implementation of the Operability Determination Process

Deficiencies in the Operability Determination Process have been discussed in NRC inspection reports (IR) 2011003 and subsequently IR 2011005 in the semi-annual trend section of these reports. The inspectors discussed these observations at the time of their occurrence, during quarterly exit meetings, and during semi-annual trend review discussions. CR-PNP-2011-0137 and CR-PNP-2011-1140 were written by the Operations Department in January and March of 2011, respectively, to assess operability shortfalls and to address programmatic areas for improvement. Further training in the latter half of 2011 was performed by the Operations department and

improvements were subsequently noted in the timeliness of initial calls, appropriate entries into TSSs, and conservative decision making.

The inspectors, however, have continued to observe deficiencies in operability determinations in the past six months specific to the rigor and quality in initial determinations. In addition, CR-PNP-2012-2076 was written by the Operations Department discussing a potential emerging trend in the rigor of initial operability determinations. Additional training as a corrective action has been planned by Entergy to re-enforce the expectations for a complete assessment of operability, to address all elements of a condition statement found in CRs, and to correctly implement the process in accordance with procedure EN-OP-104, "Operability Determination Process." The inspectors concluded that the operability determination process improvements remain a work in progress and corrective actions and progress in response to this trend will continue to be evaluated.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153 – 5 samples)

.1 Operator Performance During a Downpower to Support a Control Rod Pattern Adjustment

a. Inspection Scope

The inspectors observed a planned downpower on April 13, to 80 percent reactor power to support a control rod pattern adjustment and maintenance on the 'A' Reactor Feedpump. The inspectors reviewed procedural guidance for station power changes and the power maneuver plan, and observed control room operator conduct and control of the evolution.

b. Findings

No findings were identified.

.2 Loss of 23kV Offsite Power Line

a. Inspection Scope

At approximately 10:27 a.m., on April 23, the 23 kilo-Volt (kV) feeder line to the Shutdown Transformer was lost momentarily. The operators responded by implementing procedure 2.4.23, "Loss/Degradation of 23 kV Line," Revision 16. Power was restored to the 23 kV Line and the procedure was exited approximately one-half hour later. The cause of the loss of the line was determined to be a corroded offsite lightning arrestor. The inspectors responded to the control room and confirmed that the control room was implementing actions to address the power loss. The inspectors also reviewed control room logs and operators compliance with applicable procedures.

b. Findings

No findings were identified.

.3 Operator Performance During a Downpower to Support a Thermal Backwash and Subsequent Reactor Scram

a. Inspection Scope

The inspectors observed a planned downpower on May 22, to 50 percent reactor power to support a thermal backwash of the main condenser. The inspectors reviewed procedural guidance for station power changes and the power maneuver plan, attended just in time training and the infrequently performed test or evolution briefing, and observed control room operator conduct and control of the evolution. During the downpower, condenser vacuum degraded and operators initiated a manual scram of the reactor before vacuum degraded to the turbine generator trip setpoint. The reactor scram was followed by Forced Outage 19-4 (See section 1R20).

b. Findings

No findings were identified.

.4 Operator Performance During Power Maneuvers to Support Main Condenser Thermal Backwash

a. Inspection Scope

The inspectors observed operators perform a thermal backwash of the main condenser on June 25 and 26. Specifically, the inspectors observed a planned downpower to approximately 50 percent reactor power to support the backwash. The inspectors reviewed procedural guidance for station power changes, the power maneuver plan, and observed the Infrequently performed test or evolution brief. The inspectors observed control room operator performance during the power maneuvers.

b. Findings

No findings were identified.

.5 Condensate Storage Tank 'A' and 'B' Diving Evolutions

a. Inspection Scope

The inspectors performed several observations of an infrequently performed evolution, Condensate Storage Tank 'A' and 'B' Diving, to support desludging and inspection activities during the months of May and June, 2012. The inspectors reviewed procedural controls for the activity and attended Infrequently Performed Test or Evolution briefings. The inspectors also reviewed condition reports generated during the evolution, observed radiological controls in place to support the diving, and discussed the activity with personnel involved in the dive(s).

b. Findings

No findings were identified.

4OA5 Other Activities

.1 IP 92709 Licensee Strike Contingency Plans, IP 92711 Continued Implementation of Strike Plans During an Extended Strike, and IP 92712 Resumption of Normal Operations After a Strike Qualifications and Training Records

a. Inspection Scope

Entergy developed a Staffing Contingency Plan to ensure a sufficient number of qualified personnel were available to continue operations in the event that the Utility Workers Union of America (UWUA), Local 369 personnel engaged in a job action upon the expiration of their contract on May 15, 2012. Using the guidance contained in NRC Inspection Procedure (IP) 92709, "Licensee Strike Contingency Plans," the inspectors reviewed Entergy's plans to address a potential job action at the site. The inspection included an evaluation of the Staffing Contingency Plan content and the actions needed to implement the plan; a review to determine whether the number of qualified personnel needed for the proper operation of the facility would be available; a review to determine if reactor operations would be maintained, as required, and; a review to determine if the plan complied with TS requirements and other NRC requirements. On May 15, Entergy and UWUA, Local 369 had not come to an agreement on a new contract. The existing contract was subsequently extended until a May 25 deadline. On May 25, Entergy and UWUA, Local 369 had not come to an agreement on a new contract and further extended the existing contract until June 5.

On June 5, Entergy and UWUA, Local 369 had not come to an agreement on a new contract. and engaged in a job action. Using the guidance contained in IP 92711, "Continued Implementation of Strike Plans during an Extended Strike," the resident inspectors, with supplemental inspectors from the Region 1 office, reviewed Entergy's long term implementation of the strike contingency plans and verified that operations were proceeding in a safe manner during the strike. The inspectors implemented continuous coverage as specified in IP 92711 and observed contingency crews for operations, maintenance, health physics, and chemistry. By June 30, the end of the inspection period, an agreement on a new contract between Entergy and UWUA, Local 369 had not been reached and the job action was still in place. The inspectors continued to implement IP 92711.

On July 7, Entergy and UWUA, Local 369 tentatively agreed to a new contract and union members approved the contract on July 8. During the reintegration of Entergy employees, the inspectors implemented IP 92712, "Resumption of Normal Operations After a Strike Qualifications and Training Records" and verified that operations were proceeding in a safe manner.

b. Findings

No findings were identified.

.2 Temporary Instruction 2515/182, Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks, Phase 1 (2515/182 - 1 Sample)

a. Inspection Scope

Entergy's buried piping, underground piping, and tanks program was inspected in accordance with paragraphs 03.01a through 03.01c of the Temporary Instruction, and was found to meet all applicable aspects of the Nuclear Energy Institute (NEI) document 09-14, Revision 1, as set forth in Table 1 of Temporary Instruction 2515/182.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On May 24, 2012, the inspector conducted a radiation protection exit meeting and presented the results to Mr. Jack Priest, Radiation Protection Manager. At the exit meeting, the inspector confirmed that no proprietary information was provided to the inspector.

The results of temporary instruction 2515/182 were presented to Mr. Robert Smith, Site Vice President, and other members of the Pilgrim staff on June 14, 2012. Entergy acknowledged the conclusions and observations presented. No proprietary information was removed from the Site at the conclusion of this inspection, and no proprietary information is contained in this report.

On July 18, 2012, the resident inspectors conducted an exit meeting and presented the preliminary inspection results to Mr. Robert Smith, and other members of the Pilgrim staff. The inspectors confirmed that proprietary information provided or examined during the inspection was controlled and/or returned to Entergy, and the content of this report includes no proprietary information.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION**KEY POINTS OF CONTACT**Entergy Personnel

G. Blankenbiller	Chemistry Manager
G. Bradley	Component Engineering
D. Brugman	Supervisor, ALARA/Technical Support
B. Chenard	System Engineering Manager
B. Clow	Radiation Protection Technician
S. Colburn	Supervisor Access Authorization and Fitness for Duty
J. Cox	Supervisor, Radiation Protection Operations
A. Dodds	Director, Nuclear Safety Assurance
J. Dreyfuss	General Manager Plant Operations
K. Drown	Nuclear Oversight Manager
V. Fallacara	Engineering Director
A. Felix	Auxiliary Operator
J. Fitzsimmons	Radiation Protection Supervisor
R. German	Senior Reactor Operator
R. Hargat	Senior Radiation Protection Technician – Respiratory Protection
J. House	Superintendent, Initial Operations Training
W. Lobo	Licensing Engineer
J. Lynch	Licensing Manager
J. Macdonald	Assistant Operations Manager-Shift
T. McElhinney	Training Manager
D. Mannai	Senior Manager, Nuclear Safety and Licensing
W. Mauro	Supervisor, Radiation Protection Support
J. Miketa	Senior Radiation Protection Technician – Respiratory Protection
W. Morrow	Radiation Protection Supervisor
A. Muse	Superintendent, Operations Training
D. Noyes	Operations Manager
J. Priest	Radiation Protection Manager
R. Smith	Site Vice President
J. Taormina	Maintenance Manager
M. Thornhill	Radiation Protection Supervisor
J. Whalley	Operations Shift Manager
T. White	Emergency Planning Manager

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATEDOpened and Closed

NCV 05000293/2012003-01

Failure to Verify the Adequacy of the Design of MCC-B18
with Respect to Internal Flooding (Section 1R06)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

1.4.4, New England power Grid Operations/Interfaces, Revision 21
1.5.22, Risk Assessment Process, Revision 12
2.1.14, Station Power Changes, Revision 105
2.4.144, Degraded Voltage, Revision 41
2.1.37, Coastal Storm – Preparations and Actions, Revision 30
2.1.42, Operation During Severe Weather, Revision 12
5.2.2, High Winds (Hurricane), Revision 32
5.3.31, Station Blackout, Revision 16
8.C.40, Seasonal Weather Surveillance, Revision 26
ENN-PL-158, Transmission Grid Interface and Compliance with NERC Standards, Revision 5

Condition Reports

CR-PNP-2010-1740
CR-PNP-2012-2557

Miscellaneous

Final Safety Analysis Report (FSAR), Section 8.5, Standby AC Power Source
FSAR, Section 8.10, Blackout AC Power Source
NRC GL-2006-02, Grid Reliability and the Impact on Plant Risk and the Operability of
Offsite Power
Regulatory Guide 1.155 Station Blackout

Section 1R04: Equipment Alignment

Procedures

2.2.146, Station Blackout Diesel Generator, Revision 42
2.2.21, High Pressure Coolant Injection, Revision 80
2.2.4, Standby Liquid Control System, Revision 46
2.2.8, Standby AC Power System (Diesel Generators), Revision 99
2.2.108, Diesel Generator Cooling and Ventilation System, Revision 108
8.9.1, Emergency Diesel Generator and Associated Emergency Bus Surveillance, Revision 125

Condition Reports

CR-PNP-2012-2471, During a walkdown by the NRC, a small amount of oil buildup under the
Standby Liquid Control Pump 'A' (P-207A) was noted.

Technical Specifications

Technical Specification (TS) 3.5.C, HPCI System
TS Bases 3.5.C

Miscellaneous

Drawing M249, Standby Liquid Control, Revision 29
Drawing P&ID M264, Station Blackout Diesel Generator Set
FSAR Chapter 8.10 Blackout AC Power Source
UFSAR Section 6.4.1, High Pressure Coolant Injection System

Section 1R05: Fire Protection

Procedures

5.5.2, Special Fire Procedure, Revision 49
8.B.4.7, Fire Panel C221, Control Room Functional Test, Revision 9
8.B.17.2, Inspection of Fire Damper Assemblies, Revision 14
EN-TQ-125, Fire Brigade Drills, Revision 1

Condition Reports

CR-PNP-2012-1897, Water and Oil Mix Puddle was found under diesel engine
CR-PNP-2012-1929, Fire Brigade Equipment Degraded in Hydrant House #8
CR-PNP-2012-1954, NRC identified door from emergency diesel generator (EDG)
'A' Compressor Room to outside has a large severely corroded hole

Maintenance Orders/Work Orders

Work Order (WO) #52335449, Task 1 8.B.4.7 Att. 7 Pnl C221, Functional Test
WO#52313998, Task 1 8.B.17.2 Att. 10, Fire Damper Inspections

Miscellaneous

Fire Brigade Drill Scenario Dated 4/26/12
Fire Hazards Analysis
Fire Hazards Analysis, Fire Area 1.10, Fire Zone 1.23
Fire Hazards Analysis 89XM-1-ER-Q-E5
Hourly Fire Watch Logs
Special Fire Procedure 5.5.2, Revision 49

Section 1R06: Flood Protection Performance

Procedures

EN-DC-346, Cable Reliability Program, Revision 3
8.Q.4-1, MCC Enclosure Maintenance, Revision 17

Condition Reports

CR-PNP-2012-1351, No drawing or single reference exists that readily identifies the
 piping or systems that are within the envelope of the MCC enclosures
CR-PNP-2012-2039, Manholes MHL and Cable Pit 3 supports were found to have corrosion
CR-PNP-2012-2126, Cable Pit #1 as found condition of the cable support has rusted
 through and failed

Work Orders

52313351 Task 1, Perform Enclosure Leak Test, 2002
51525522 Task 1, Perform Enclosure Leak Test, 2007
00196956 Task 1, Perform Enclosure Leak Test, 2010

Miscellaneous

PDC 84-18, Revision 18, Environmental Enclosures for Motor Control Centers
Drawing M204M1, Revision E1, Relief Valve Arrangement for MCC Enclosures D7, D8, D9,
 B17, B18, & B20
Matrix for manhole inspections for degraded cables

Section 1R11: Licensed Operator Regualification Program

Procedures

2.1.14, Station Power Changes, Revision 107

Condition Reports

CR-PNP-2012-2007, Simulator deficiencies identified during a simulator scenario

CR-PNP-2012-2015, Expected trip of B-14 bus feeder during a simulator scenario

Miscellaneous

Licensed Operator Regualification Training Schedule

LORT/NRC Simulator Exam Scenario, SES-2012-02

Power Maneuver Plan for 4/13/2012

Simulator Training Event Notifications Associated with SES-2012-02 dated 4/30/2012

Section 1R12: Maintenance Effectiveness

Procedures

8.5.5.4, Reactor Core Isolation Cooling (RCIC) Motor Operated Valve Quarterly Operability Test, Revision 39

Condition Reports

CR-PNP-2012-29, Correction Action #5, RCIC MOV Functional Failure Evaluation

CR-PNP-2012-155, RCIC MOV Stroke Time Test Failure

CR-PNP-2012-2124, Review potential preconditioning aspects for AO-1301-34 surveillance conducted on January 10, 2012

CR-PNP-2012-5228, 'B' Feed Line outboard check valve through wall leak and associated root cause

Miscellaneous

Functional Failure Evaluations associated with CR-PNP-2012-5228

Part 9900: Technical Guidance, Maintenance – Preconditioning of Structures, Systems, and components before Performing Operability

Primary Containment System Maintenance Rule Basis Document

Primary Containment System Maintenance Rule Reliability and Availability Data

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

1.5.22, Risk Assessment Process, Revision 16

2.2.35, Condensate Storage & Transfer System, Revision 45

3.M.1-45, Outage Shutdown Risk Management, Revision 14

8.B.14, Fire Protection Technical Requirements, Revision 46

8.M.1-32.8, Analog Trip System Unit Calibration Cabinet C2233B Section B, Revision 30

EN-OP-116, Infrequently Performed Tests or Evolutions, Revision 9

Condition Reports

CR-PNP-2012-1377, Inadequate Risk Assessment for 8.M.1-32.6

CR-PNP-2012-1996, SUT pot fuse has fatigue crack

CR-PNP-2012-2022, Operations not present at IPTE brief

CR-PNP-2012-2683, Cable Spreading Room Halon Panel Trouble Alarm Received

Miscellaneous

NEV 05000293/2011003-03, Inadequate Risk Assessment for Planned Maintenance Testing on RCIC, SLC, and ATS Systems
OCC Meeting Minutes and Emergent Issues Lists
Risk profile for week of 4/23/12
Risk profile for week of 4/30/12
Risk profile for 6/21/12
Shutdown Risk Key Safety Function Checklist for 5/22 – 5/25
Work week schedule for 4/23/12
Work week schedule for 4/30/12

Section 1R15: Operability Determinations and Functionality Assessments

Procedures

2.1.12.1, Emergency Diesel Generator Surveillance, Revision 76
2.4.22, Failure of Recirculation Pump Seal, Revision 17
2.2.84, Reactor Recirculation System. Revision 104
3.M.3-61.5, Attachment 2E, 'B' Diesel Generator Post Overhaul Testing (LC), Revision 45
3.M.4-10, Valve Maintenance, Revision 39
8.7.1.5, Local Leak Rate Testing, 5/5/11, Revision 56
EN-OP-104, Operability Determination Process, Revision 5

Condition Reports

CR-PNP-2008-3462, Security DG engine parameters did not meet criteria
CR-PNP-2009-0005, Security diesel hour load, parameters outside criteria
CR-PNP-2009-0349, Acceptance criteria not met
CR-PNP-2009-0770, Security Diesel Generator outside acceptance criteria
CR-PNP-2009-4106, As found governor speed setting for 'B' EDG incorrect
CR-PNP-2011-4303, Jacket water temperatures did not rise to within band
CR-PNP-2011-4761, Coolant temperature and oil temperature
CR-PNP-2012-1750, Found 'B' EDG governor speed setting at 13.32
CR-PNP-2012-1753, 'B' EDG governor speed setting moved from 13.34 to 13.32
CR-PNP-2012-1938, Security Diesel Thermostat failure and operability evaluations
CR-PNP-2012-2015, MCCB14 Feeder Breaker B-2 tripped during a simulator scenario which operated 3 Reactor Building Closed Cooling Water (RBCCW) on B-14
CR-PNP-2012-2181, HPCI turbine exhaust line stop and check valve failed LLRT
CR-PNP-2012-2355, During condenser backwash seal leakage alarm received
CR-PNP-2012-2356, Disc returning to its seat for check valve 2301-CK-74 should be verified

Maintenance Orders/Work Orders

WO #51534256, Tasks 1 & 6, Perform detailed inspection and repair of check valve 2301-CK-74 and post work test

Miscellaneous

Identified Leakage Data for March 2012
P&ID M251, Sh.1, Recirculation Pump Instrumentation, Revision 22

Section 1R18: Plant Modifications

Procedures

EN-DC-134, Att. 9.1, Design Verification Cover Page, Revision 4

Condition Reports

CR-PNP-2011-2934, TBCCW in-leakage is likely from the Reactor Feedwater Pump Mechanical Seals

Miscellaneous

Condensate and Feedwater Maintenance Rule Basis Document

Engineering Change (EC) 34329, Revision 0, Add Isolation Valves for TBCCW Cooling

Water Jackets to Feed Pump P-103C mechanical Seal Cartridges Reference

CR-PNP-2011-2934 CA 8, 9, & 17 Recommendations

EC 34580, Base EC for SSW pump overload heater changes, P-208 A, B, C, D, & E, and
ECs 34581, 34582, 34583, 34584, & 34585

FSAR, Section 10.7, Salt Service Water System

FSAR, Section 11.8, Condensate and Feedwater System

Turbine Building Component Cooling System Maintenance Rule Basis Document

ERCN 05110052, 'Increase Condensate Pump Motor P-101A Alarm Setpoint'

Maintenance Rule Basis Document, 'Condensate (18), and Feedwater (06) Systems, Rev 1

Section 1R19: Post-Maintenance Testing

Procedures

2.2.30, Reactor Building Closed Cooling Water (RBCCW) System, Revision 73

2.2.83, Reactor Clean-up System, Revision 112

3.M.3-30, HFA Relays Removal/Installation and Testing Preventive Maintenance, Revision 29

3.M.3-51, Electrical Termination Procedure, Revision 28

3.M.4-13, Reactor Building Closed Cooling Water Pump Maintenance, Revision 10

3.M.4-14, Rotating Equipment Inspection Assembly & Disassembly, Revision 43

3.M.4-58, Rebuilding Reactor Water Clean-up Pumps P-204A and P-204B, Revision 17

8.5.3.1, Reactor Building Closed Cooling Water System Quarterly and Biennial Comprehensive
Operability, Revision 59

8.5.4.1, HPCI System Pump Biennial Comprehensive Operability, Revision 109

8.Q.3-4, 125/250V DC MCC and Breaker Panel Testing and Maintenance, Revision 53

EN-MA-125, Troubleshooting Control of Maintenance Activities, Revision 9

EN-WM-107, Post Maintenance Testing, Revision 4

Condition Reports

CR-PNP-2004-1099, P-204A Vent port not working as expected

CR-PNP-2011-2934, TBCCW In-leakage is likely from the reactor feedwater pump mechanical
seals

CR-PNP-2012-2122, Procedure 3.M.4-14.3 requires clarification

CR-PNP-2012-2257, While performing work order #301432 (rebuild RWCU pump, P-204A) it
was found that the revision that was used in 3.M.4-14 attachment 3 was not the latest
revision

CR-PNP-2012-2109, 16A-K8A Relay did not energize as expected

CR-PNP-2012-2179, Repair for 16A-K8A Relay needs replacement magnetic assembly and
armature

Maintenance Orders/Work Orders

WO #00294924 01, Replace Mechanical Seal RBCCW Pump 'B' has a 50 DPM Mechanical Seal Leak
WO #00301432, Task 1, P-204A Leaking 70DPM from pump mechanical seal
WO #00305942, Tasks 2, 3, 4, 5, 6, 8 & 9, 16A-K8A Relay is Chattering
WO #298787, Tasks 1, 2 & 5, Replace X-203 (HPCI) EGR
WO #301504, Tasks 1 & 3, Inspect HPCI EGR and Remote Servo Piping
WO #313422, Tasks 1, 2 & 4, Replace P-223 Motor, HPCI Gland Seal Condenser Blower
WO #313611, Tasks 1, 2, 3 & 4, Received Overload on Breaker D912
WO #52313842, Tasks 1 & 2, HPCI Turbine Gland Seal Vacuum Pump Power Supply Testing
WO #52314356, Task 4, Troubleshoot Gland Seal Blower P-223 per EN-MA-125

Miscellaneous

Condensate and Feedwater Systems Maintenance Rule Basis Document
Final Safety Analysis Report (FSAR), Section 11.8, Condensate and Feedwater System
Plant Drawing M215, P&ID Cooling Water System Reactor Building, Revision 46
Plant Drawing M247, P&ID Reactor Water Clean-up System, Revision 53
Plant Drawing 2051-45-4, Reactor Water Clean-up Pump Section Assembly P-204 A/B, Revision 2
Turbine Building Component Cooling System Maintenance Rule Basis Document
Vendor Manual V2049, PSS Dura Seal Replacement Instructions

Section 1R20: Refueling and Outage Activities

Procedures

1.3.37, Post-Trip Reviews, Revision 29
1.3.63, Conduct of Event Review Meetings, Revision 25
2.1.1, Startup from Shutdown, Revision 176
2.1.4, Approach to Critical and Plant Heatup, Revision 30
2.1.7, Vessel Heatup and Cooldown, Revision 54
2.1.14, Station Power Changes, Revision 108
2.2.93, Main Condenser Vacuum System, Revision 65
2.2.94.5, Main Condenser Backwash, Revision 7
2.4.36, Decreasing Condenser Vacuum, Revision 31
ARP-C2C-A6, Condenser Vacuum, Revision 18

Condition Reports

CR-PNP-2012-2294, Steam leak on 16-HO-112A
CR-PNP-2012-2302, Received alarm Generator Field Ground (C3R-A4) during reactor scram
CR-PNP-2012-2303, Standby Gas Treatment, Train B remained running when a low flow signal was received
CR-PNP-2012-2304, Manual SCRAM due to degrading main condenser vacuum
CR-PNP-2012-2306, LV-3001 has a 20 DPM leak
CR-PNP-2012-2307, 54 DPM leak on LV-3066
CR-PNP-2012-2308, Packing leak on feed reg valve FV-642A
CR-PNP-2012-2309, Leak on vent valve cap for LS-3003B
CR-PNP-2012-2310, Water is draining down the west side of the condenser
CR-PNP-2012-2319, Unable to obtain Sequence of Event (SER) log from Plant Process Computer

CR-PNP-2012-2321, During post scram trip review it was discovered that the control room alarm printer is not printing alarms
CR-PNP-2012-2325, On the new plant process computer reactor water level points took about 15 seconds to track
CR-PNP-2012-2327, Alarm "Rod Withdrawal Block" in after mode switch to "REFUEL"
CR-PNP-2012-2329, Rod Worth Minimizer (RWM) rod block alarm would come in when CR-42-31 was selected

Miscellaneous

NRC 50.72, Event Notification Worksheet, EN#47945, Reactor Protection Actuation (Scram) – Low Condenser Vacuum
Outage Control Center Updates 5/22-5/25
OSRC Meeting 2012-009 Minutes
P&ID M210, Air Ejection and Off-Gas System, Revision 70
Pilgrim Station Scram Report
Power Maneuver Plan – Man.C-19-19, May 23, 2012
Reactor Startup and Criticality Template Instructor Guide

Section 1R22: Surveillance Testing

Procedures

1.3.6, Technical Specifications – Adherence and Clarifications, Revision 24
2.5.2.71, Radwaste Collection System Revision 32
8.A.2, Drywell to Suppression Chamber Vacuum Breaker Leakage Rate Test, Revision 34
8.A.15, HPCI System Integrity Surveillance, Revision 16
8.C.6, Test of Control Room Environmental System, Revision 18
8.I.1, Administration of Inservice Pump and Valve Testing, Revision 19
8.I.1.1, Inservice Pump and Valve Testing Program, Revision 22
8.M.2-2.10.8.6, Diesel Generator 'B' Initiation by Loss of Offsite Power Logic, Revision 41
8.M.3-18, Standby Gas Treatment System Exhaust Fan Logic Test and Instrument Calibration, Revision 48
8.5.2.2.2, LPCI System Loop B Operability – Pump Quarterly and Biennial (Comprehensive) Flow Rate Tests and Valve Tests, Revision 46
8.5.4.1, HPCI System Pump Biennial Comprehensive Operability, Revision 109

Condition Reports

CR-PNP-2012-1358, Need to evaluate whether removing both trains of SBGT is necessary for Procedure 3.M.3-18
CR-PNP-2012-1979, WO #52408181 went past its late date
CR-PNP-2012-2288, Procedure 8.A.2 Data Issues
CR-PNP-2012-2536, Received reactor water cleanup non-regenerative heat exchanger outlet temperature high while establishing flow through the 'B' residual heat removal (RHR) heat exchanger
CR-PNP-2012-2577, Data recorded in incorrect section of the procedure data table

Maintenance Orders/Work Orders

WO #00313422, Task 10, Operations Post Work Test, Replace P-223
WO #52408181, Task 1, Perform 8.C.6, Control Room Environment System

Technical Specifications

Technical Specification 4.7.B.1, Standby Gas Treatment System and Control Room
High Efficiency Air Filtration System Surveillances
Technical Specifications Section 4.0.3, Surveillance Requirement Applicability

Miscellaneous

Data Sheets for RCS Leakage Data for April 2011 to March 2012
Drywell Leakage Graphs for unidentified and identified leakage
Plant Drawing M227 Sheet 1, Containment Atmospheric Control System, Revision 59

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Miscellaneous

Pilgrim Nuclear Power Station Emergency Plan, Revision 38

Section 1EP6: Drill Evaluation

Miscellaneous

Emergency Action levels
LORT/NRC Simulated Exam Scenario, SES-2012-02
Simulator Training Event Notifications Associated with SES-2012-02

Sections 2RS03: In-Plant Airborne Radioactivity Control and Mitigation

Procedures

2.2.46, Control Room, Cable Spreading Room, and Computer Room Heating, Ventilation,
and Air Conditioning System
6.1-220, Radiological Controls for High Risk Evolutions
6.7.1-202, PNPS Emergency Use Respiratory Protection Equipment Inspection
7.1.30, HEPA Filter and Charcoal Cell Performance Test Program
7.1.44, Sampling of Charcoal Cells in Standby Gas Treatment and Control Room Environmental
Filter Systems for Methyl Iodide Testing
7.22.44, DOP Testing of Portable HEPA Units
8.7.2.7, Measure Flow and Pressure Drop Across Control Room High Efficiency Air Filtration
System (CRHEAFS)
EN-RP-131, Air Sampling
EN-RP-402, DOP Challenge Testing of HEPA Vacuums and Portable Ventilation Units
EN-RP-404, Operation and Maintenance of HEPA Vacuum Cleaners and HEPA
Portable Ventilation Units
EN-RP-501, Respiratory Protection Program
EN-RP-502, Inspection and Maintenance of Respiratory Protection Equipment
EN-RP-503, Selection, Issue, and Use of Respiratory Protection Equipment
EN-RP-504, Breathing Air
EN-RP-505, Portacount Respiratory Fit Testing

Condition Reports (Airborne Controls related (71124.03))

2012-00159	2012-02234	2011-00708
2012-01567	2011-2896	
2012-02098	2011-2037	
2012-02128	2011-1928	
2012-01696	2011-1825	

Nuclear Oversight Audit and Field Observations

QA-14/15-2011-PNPO-1, Radiation Protection and RadWaste
Radiation Protection Monthly Trend Report for April 2012
Radiation Protection Quarterly Trend Report for 1st Quarter 2012

Miscellaneous Reports

AMS-4 Daily Operational Check forms May 2012
Breathing Air Compressor Air Quality Data for March, 2012
Drawing M286-19, Heating, Ventilation, & Air Conditioning Temperature Control Diagram for
Cont. Rm, Cable Spreading Rm, and Comp Rm
Calibration Record for AMS-4 Monitors, Nos. 2823, 103, 2687,
Calibration Record for Control Room Vent Monitor, RM-1705-16
Calibration Record for Control Room Area Monitor, RIS-1815-2A
In-Place Testing of Nuclear Air Cleaning Systems, dated 2/15/2011
NPRO Relief Checklist for Run Time Tracking on CRHEAFS
Portable HEPA system test records
Radioiodine Penetration/Efficiency Test Reports for "A" and "B" CRHEAFS
Respiratory Protection Practical Factors Guide
Respirator User Qualification Status (SCBA Task Qualification Matrix)
SCBA regulator, alarms, air tank test records and monthly inspection records for May 2012
System Health Report for Control Room High Efficiency Air Filtration System (CRHEAFS)

Sections 2RS04: Occupational Dose Assessment

Procedures

EN-RP-201, Dosimetry Administration
EN-RP-202, Personnel Monitoring
EN-RP-203, Dose Assessment
EN-RP-204, Special Monitoring Requirements
EN-RP-205, Pre-Natal Monitoring
EN-RP-206, Dosimeter of Legal Record Quality Assurance
EN-RP-208, Whole Body Counting/In-Vitro Bioassay
EN-RP-210, Area Monitoring Program

Condition Reports - Dose Assessment related (71124.04)

2012-01718	2012-00722	2012-00199
2012-01677	2012-00750	
2012-01668	2012-00358	
2012-1108	2012-00250	

Quality Assurance Audit and Field Observations:

QA-14/15-2011-PNPO-1, Radiation Protection and RadWaste
Radiation Protection Monthly Trend Report for April 2012
Radiation Protection Quarterly Trend Report for 1st Quarter 2012

Miscellaneous Reports:

Calibration of the Canberra FastScan Whole Body Counting System, 06/16/2011
DAC-Hr Timekeeping forms for Tritium Exposure
Daily, Weekly, Monthly Whole Body Counter Operability Checks
EDE Dosimetry Evaluation Forms
Neutron Dose Tracking Forms

NUPIC Audit of Landauer Inc. (Dosimetry Supplier/Processor)
Radiation Protection Program Focused Self-Assessment, LO-PNPLO-2011-0085
Random Whole Body Counting Data for 1st Quarter 2012

Section 40A1: Performance Indicator Verification

Procedures

7.3.11, Reactor and Hotwell Water Analysis Preparation, Revision 35
EN-LI-114, Attachment 9.2, Performance Indicator Process for Pilgrim Safety System Functional Failure Data Submittals from 1st Quarter 2011 through 4th Quarter 2011
EN-LI-114, Performance Indicator Process Data Sheets, Revision 4

Condition Reports

CR-PNP-2011-2993, Adequacy of Maintenance Rule Functional Failure questioned
CR-PNP-2011-3210, Drywell to Torus Vacuum Breakers exceed Maintenance Rule unavailability

Technical Specifications

3.6.B, Coolant Chemistry
3.6.C, Primary System Boundary Coolant Leakage

Miscellaneous

2011 Licensee Event Reports
Data Sheets for RCS Leakage January 2011 through March 2012
Drywell Leakage Identified and Unidentified Table
Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guidelines", Revision 6
NUREG 1022, "Event Report Guidelines 10 CFR 50.73", Revision 2
Performance Indicator Total Iodine Tabulated Data

Section 40A2: Identification and Resolution of Problems

Condition Reports

CR-PNP-1987-0563, Spent Fuel Pool Liner Drain leakage
CR-PNP-1990-0312, Fuel Pool System leakage 100 dpm
CR-PNP-1994-0122, Fuel Pool Liner Drain Valve leakage increased to greater than 300 dpm
CR-PNP-2007-3443, The Fuel Pool Liner Telltale Drain is leaking 13 drops per minute
CR-PNP-2011-2066, Drain Line 1 was leaking approximately 100 dpm
CR-PNP-2011-5777, Constant flow emanating from 19-HO169E
CR-PNP-2012-1750, EDG "B" Governor Speed Setting Set Incorrectly
CR-PNP-2012-1938, Security Diesel Parameters out of normal band during run
CR-PNP-2012-2015, Potential Exists for B14 Bus to overload with three RBCCW pumps in service
CR-PNP-2012-2046, Holtec advised PNPS of an error in the assumption for Spent Fuel Pool Calculations

Technical Specifications

4.0, Design Features
4.3, Fuel Storage

Miscellaneous

Final Safety Analysis Report (FSAR), Chapter 10.3, Spent Fuel Storage
1st Quarter 2012 Trend Assessment Report
Operational Decision Making Issue, Spent Fuel Pool Tell Tale Leakage

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

Procedures

1.3.37, Post-Trip Reviews, Revision 29
2.1.14, Station Power Changes, Revision 107
2.2.93, Main Condenser Vacuum System, Revision 65
2.2.94.5, Main Condenser Backwash, Revision 7
2.2.94.5, Main Condenser Backwash, Revision 9
2.4.A.23, Loss/Degradation of 23kV Line, Revision 16
2.4.36, Decreasing Condenser Vacuum, Revision 31
ARP-C2C-A6, Condenser Vacuum, Revision 18
EN-MA-133, Control of Scaffolding, Revision 8
Temporary Procedure TP 12-004, Condensate Storage Tanks Desludging, Underwater Inspections, and Repairs, Revision 0

Condition Reports

CR-PNP-2012-2258, Gasket material missing from 'B' CST access cover
CR-PNP-2012-2303, Standby Gas Treatment, Train B remained running when a low flow signal was received
CR-PNP-2012-2304, Manual SCRAM due to degrading main condenser vacuum
CR-PNP-2012-2306, LV-3001 has a 20 DPM leak
CR-PNP-2012-2307, 54 DPM leak on LV-3066
CR-PNP-2012-2308, Packing leak on feed regulating valve FV-642A
CR-PNP-2012-2309, Leak on vent valve cap for LS-3003B
CR-PNP-2012-2310, Water is draining down the west side of the condenser
CR-PNP-2012-2384, Contingency plan restoration timeline was exceeded
CR-PNP-2012-2500, Discrepancies noted in EN-RP-151, radiological diving
CR-PNP-2012-2501, Diving personnel did not follow procedure steps

Maintenance Orders/Work Orders

WO #51546879 01, Inspect Tank-105B Internals

Miscellaneous

Component/Plant Impact Sheet for Work Order (WO) 51546879-01
Control Room Logs
CST Project Contact List
Engineering Change (EC) 35540, Inspection and Repair of CST floor plates, Revision 0
NRC 50.72, Event Notification Worksheet, EN#47945, Reactor Protection Actuation (Scram) – Low condenser Vacuum
Pilgrim Station Scram Report
Power Maneuver Plan for 4/13/2012
Thermal Backwash Power Profile for 6/25/12 and Power Maneuver Plan
TP 12-005, Underwater Desludging of Immersion Areas in Radiologically Contaminated Environments, Revision 0
TP 12-007, Underwater Coating Repair, Revision 0

Section 40A5: Other Activities

Procedures

8.3.2, Control Rod Exercise, Revision 58

EN-DC-343, Buried Piping and Tanks Inspection and Monitoring Program, Revision 2

EN-DC-343, Buried Piping and Tanks Inspection and Monitoring Program, Revision 3

EN-DC-343, Underground Piping and Tanks Inspection and Monitoring Program, Revision 4

EN-DC-343 Atch 9.5, Long Term Inspection Plan Non-Contaminated Piping

CEP-UPT-0100 R 0, Underground Piping and Tanks Inspection Monitoring

CEP-BPT-0100 R 0, Buried Piping and Tanks Inspection and Monitoring

SEP-UIP-PNPS R 1, Underground Components Inspection Plan

Condition Reports

CR-PNP-2007-0021, Perform Corrosion Risk Eval of high and medium impact buried sections

CR-PNP-2012-2515, Condition Summary of Cathodic Protection self assessment

CR-PNP-2012-2516, Condition Summary of underground Piping and Tanks self-assessment

Miscellaneous Documents:

Strike Contingency Plans

Daily Contingency Meeting Minutes

Reintegration Plan

Control Room Logs

Power Maneuver Plans

Operation Crew Watchbills

NRC Inspection Procedure 92709, Licensee Strike Contingency Plans

NRC Inspection Procedure 92711, Continued Implementation of Strike Plans During an
Extended Strike

NRC Inspection Procedure 92712, Resumption of Normal Operations after a Strike

Qualifications and Training Records

Emergency Response Organization Staffing Plans

DRP/DRS Policy 37/1030, NRC Preparations for Potential Licensee Strike

Event Notifications

EN-EP-S-002-MULTI R 0, Buried Piping and Tanks General Visual Inspection Fuel Pipes

EN-EP-S-002-MULTI R 0, Buried Piping and Tanks General Visual Inspection Water Pipes

Entergy Buried Piping/Tanks Action Plan, Revision 6

Entergy Underground Piping/Tanks Action Plan, Revision 7

NEI 09-14 (Rev 1), December 2010; Guideline for the Management of Underground Piping and
Tank Integrity

NEI 09-14 (Rev 2), March 2011, Industry Approach for Development of Inspection Plans that
Establish Reasonable Assurance of Structural and Leakage Integrity of Buried Piping

NRC Temporary Instruction 2515/182, 11/17/11; Review of the Implementation of the Industry
Initiative to Control Degradation of Underground Piping and Tanks

Project Summary Report R 1, Aug 2010 Risk Ranking for Radiological Material Leak Prevention
to Groundwater of above and Underground Structures, Systems and Components
Section A6 (Pilgrim)

LIST OF ACRONYMS

AC	alternating current
ADAMS	Agencywide Documents Access and Management System
ALARA	as low as is reasonably achievable
CA	corrective action
CAP	corrective action program
CFR	Code of Federal Regulations
CR	condition report
CRS	control room supervisor
CST	condensate storage tank
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EDG	emergency diesel generator
EP	Emergency Preparedness
FSAR	Final Safety Analysis Report
HPCI	high pressure coolant injection
HX	heat exchangers
IMC	inspection manual chapter
IR	inspection report
IST	inservice test
KV	kilovolt
LER	licensee event report
MCC	motor control center
NCV	non-cited violation
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PDC	Pilgrim design calculation
PI	performance indicator
PNPS	Pilgrim Nuclear Power Station
RBCCW	reactor building closed cooling water
RCS	reactor coolant system
RCIC	reactor core isolation cooling
RFO	refueling outage
RS	radiation safety
SCBA	self contained breathing apparatus
SDP	Significance Determination Process
SSC	structure, system, or component
SSW	salt service water
TBCCW	turbine building closed cooling water
TS	technical specifications
UFSAR	Updated Final Safety Analysis Report
WO	work order