UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

October 26, 2010

Mr. Kevin Bronson
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 05000293/2010004

Dear Mr. Bronson:

On September 30, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Pilgrim Nuclear Power Station (PNPS). The enclosed inspection report documents the results, which were discussed on October 13, 2010, with you and members of your staff.

The inspection examined activities performed 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). The finding was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV), consistent with Section 2.3.2.a of the NRC's Enforcement Policy. If you contest any NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the 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, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Donald E. Jackson, Chief
Projects Branch 5
Division of Reactor Projects

Docket No. 50-293
License No. DPR-35

Enclosure: Inspection Report 05000293/2010004
w/Attachment: Supplemental Information

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Sincerely,

/RA/

Donald E. Jackson, Chief
Projects Branch 5
Division of Reactor Projects

Docket No. 50-293
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w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-293
License No:	DPR-35
Report No:	05000293/2010004
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Pilgrim Nuclear Power Station (PNPS)
Location:	600 Rocky Hill Road Plymouth, MA 02360
Inspection Period:	July 1, 2010 through September 30, 2010
Inspectors:	M. Schneider, Senior Resident Inspector, Division of Reactor Projects (DRP) B. Smith, Resident Inspector, DRP R. Rolph, Health Physicist, Division of Reactor Safety (DRS) J. Trapp, Plant Support Branch 1, Branch Chief, DRS B. Yip, Physical Security Inspector, DRS
Approved By:	Donald E. Jackson, Chief Projects Branch 5 Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000293/2010004; 07/01/2010-09/30/2010; Pilgrim Nuclear Power Station; Maintenance Risk Assessments and Emergent Work Control.

The report covered a three-month period of inspection by the resident and region based inspectors. One Green non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." The cross-cutting aspect for the finding was determined using IMC 0310, "Components Within The Cross-Cutting Areas." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Initiating Events

Green. The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65 paragraph (a)(4) for Entergy's failure to manage a Yellow risk condition for an unplanned half-scram. Specifically, Entergy performed an incorrect risk assessment and thereby did not recognize an increase in risk to a Yellow condition had occurred, and as a result Entergy did not specify any risk management actions. Entergy entered this issue into their corrective action program, specified corrective actions to upgrade this risk to Yellow, and implemented appropriate risk management actions.

This finding was determined to be more than minor because Entergy did not consider the increase in Initiating Event likelihood where the outcome of the overall elevated plant risk put the plant into a higher risk management category, and thereby required additional risk management actions. In addition, the finding affected the Human Performance attribute of the Initiating Events cornerstone's objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. The inspectors performed an evaluation in accordance with IMC 0609, "Significance Determination Process," Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," because the finding related to Entergy's assessment and management of risk. The finding was determined to be of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the medium trip risk for the duration of the activity was less than 1.0 E-6 per year (approximately 1.0 E-9 per year). The inspectors determined that this finding had a cross-cutting aspect in the Human Performance cross-cutting area, Decision Making component, because when faced with an unexpected plant condition, Entergy did not correctly implement its systematic process to make a risk-significant decision. [H.1(a)] (Section 1R13)

REPORT DETAILS

Summary of Plant Status

Pilgrim Nuclear Power Station (PNPS) began the inspection period operating at 100 percent power. On July 15, 2010, operators reduced power to 50 percent to perform a thermal backwash of the main condenser. Pilgrim returned to 100 percent power on July 16, 2010. On July 19, 2010, operators reduced power to 88 percent for a control rod pattern adjustment and returned to 100 percent power later the same day. On August 1, 2010, operators reduced power to 48 percent for an unplanned backwash of the main condenser due to a large deposition of mussels in the main condenser. Pilgrim returned to 100 percent power on August 2, 2010. On August 3, 2010, operators reduced power to 89 percent for a control rod pattern adjustment and returned to 100 percent power later the same day. On August 17, 2010, operators reduced power to 48 percent to perform a thermal backwash. Pilgrim returned to 100 percent power on August 18, 2010. On August 20, 2010, operators reduced power to 87 percent for a control rod pattern adjustment and returned to 100 percent power later the same day. Operators maintained the reactor at or near 100 percent power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Seasonal Susceptibility

a. Inspection Scope (1 sample)

The inspectors performed a review of seasonal weather preparations during the week of July 4, 2010, to evaluate the site's readiness for the onset of hot weather. The inspectors reviewed the readiness of three risk-significant plant areas, which included the Reactor Building, the Turbine Building, and the Control Room. The inspection 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 Reactor Building, Turbine Building, associated fan rooms, and the Control Room to determine the adequacy of equipment protection from the effects of hot outside temperatures. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings were identified.

.2 External Flooding

a. Inspection Scope (1 sample)

The inspectors reviewed the Pilgrim plant design and procedures for coping with the design basis probable maximum flood during the week of August 23, 2010. The inspectors reviewed the "Storm Flooding Protection" section of the Updated Final Safety Analysis Report (UFSAR) and operating procedures for mitigating external flooding conditions during severe weather. The inspectors also performed a walkdown of the site to determine if all susceptible flooding conditions had been considered in the plant design, and whether operating procedures could be reasonably carried out to mitigate flooding concerns. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

.3 Imminent Adverse Weather

a. Inspection Scope (1 sample)

During the week of August 30, 2010, Hurricane Earl was tracking to impact the Pilgrim plant late in the week. The inspectors reviewed Entergy's preparations for the hurricane and the high winds expected to accompany the storm. The inspectors reviewed Entergy's severe weather procedures including operations during severe weather, coastal storm preparation, and high winds (hurricane) procedures. The inspectors also conducted a walkdown of the outside areas including the switchyard to determine if loose debris or other material could become airborne in the presence of high winds and thereby potentially impact safety related equipment. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns (71111.04Q)

a. Inspection Scope (3 samples)

The inspectors performed three partial system walkdowns during this inspection period. The inspectors reviewed the documents listed in the Attachment to determine the correct system alignment. The inspectors performed a partial walkdown of each system to determine if the critical portions of the selected systems were correctly aligned in accordance with procedures, and to identify any discrepancies that may have had an effect on operability. The walkdowns included selected control switch position verifications, valve position checks, and verification of electrical power to critical components. In addition, the inspectors evaluated other elements, such as material condition, housekeeping, and component

labeling. The following systems were reviewed based on their risk significance for the given plant configuration:

- High Pressure Coolant Injection (HPCI) System with Reactor Core Isolation Cooling (RCIC) System Out of Service for Maintenance;
- RCIC System Following Maintenance on the HPCI System; and
- "A" Core Spray System Following Maintenance and Testing.

b. Findings

No findings were identified.

.2 Complete System Walkdowns (71111.04S)

a. Inspection Scope (1 sample)

The inspectors completed a detailed review of the Station Blackout (SBO) Emergency Diesel Generator (EDG) system to assess the functional capability of the system. The inspectors performed a walkdown of the system to determine whether the critical components, such as valves and breakers, were aligned in accordance with operating procedures, and to assess the material condition of valves, piping, and other supporting equipment. The inspectors discussed system health with the system engineer, reviewed the system's Maintenance Rule status, and performed a review of outstanding maintenance work orders to determine whether the deficiencies significantly affected the SBO EDG system function. The inspectors also reviewed condition reports from the past year to determine whether SBO EDG equipment problems were being identified and appropriately resolved. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

Fire Protection - Tours (71111.05Q)

a. Inspection Scope (5 samples)

The inspectors performed walkdowns of five fire protection areas during the inspection period. The inspectors reviewed Entergy's fire protection program to determine the fire protection design features, fire area boundaries, and combustible loading requirements for the selected areas. The inspectors walked down these areas to assess Entergy's control of transient combustible material and ignition sources. In addition, the inspectors evaluated the material condition and operational status of fire detection and suppression capabilities and fire barriers. The inspectors then compared the existing condition of the areas to the fire protection program requirements to determine whether all program requirements were met. The documents reviewed during this inspection are listed in the Attachment. The fire protection areas reviewed were:

- Fire Area 1.21, Fire Zone 1.21, "A" Reactor Building Closed Cooling Water (RBCCW) Pumps/Heat Exchanger Room;
- Fire Area 1.10, Fire Zone 1.22, "B" RBCCW Pumps/Heat Exchanger Room;
- Fire Area 1.9, Fire Zone 1.1, "A" Residual Heat Removal and Core Spray Pumps Quadrant;
- Fire Area 1.10, Fire Zone 1.10A, Traversing In-Core Probe Room; and
- Fire Area 1.10, Fire Zone 1.4, High Pressure Coolant Injection Control Panel Room.

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)

Internal Flooding Inspection

Inspection Scope (1 sample)

The inspectors walked down the "A" RBCCW pump room and associated flood propagation pathways to assess the effectiveness of Entergy's internal flood control measures. The inspectors assessed the condition of the RBCCW floor drain to the torus room, curbing, selected flood pathways, and the flood door separating the "A" and "B" RBCCW rooms. The inspectors also evaluated whether potential sources of internal flooding were analyzed. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope (1 sample)

The inspectors reviewed one sample of Entergy's program for maintenance, testing, and monitoring of risk significant heat exchangers (HXs) to assess the capability of the HXs to perform their design functions. The inspectors assessed whether the HX program conformed to Entergy's commitments at Pilgrim related to NRC Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment." In addition, the inspectors evaluated whether potential common cause heat sink performance problems could affect multiple HXs in mitigating systems or result in an initiating event. Based on risk significance and prior inspection history, the "A" RBCCW Heat Exchanger was selected for detailed review by the inspectors.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope (1 sample)

The inspectors observed licensed operator performance during a simulator as-found Licensed Operator Requalification training evaluated scenario on July 26, 2010. The inspectors observed crew response to a scenario which included a steam release into the secondary containment. The inspectors assessed the licensed operators' performance to determine if the training evaluators adequately addressed observed deficiencies. The inspectors reviewed the applicable training objectives from the scenario to determine if they had been achieved. In addition, 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. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q)

Inspection Scope (2 samples)

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 paragraph (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). The documents reviewed during this inspection are listed in the Attachment. Items reviewed included the following:

- "C" Salt Service Water Pump Experiencing High Vibrations; and
- Station Blackout Emergency Diesel Generator System.

b. Findings

No findings were identified.

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

a. Inspection Scope (5 samples)

The inspectors evaluated five maintenance risk assessments for planned and emergent maintenance activities. The inspectors reviewed maintenance risk evaluations, work

schedules, and control room logs to determine if concurrent maintenance or surveillance activities adversely affected the plant risk already incurred with out-of-service components. The inspectors evaluated whether Entergy took the necessary steps to control work activities, minimized the probability of initiating events, and maintained the functional capability of mitigating systems. The inspectors assessed Entergy's risk management actions during plant walkdowns. The documents reviewed during this inspection are listed in the Attachment. The inspectors reviewed the conduct and adequacy of maintenance risk assessments for the following maintenance and testing activities:

- Yellow Risk for Planned Testing for Reactor Core Isolation Cooling;
- Green Risk for Emergent Half Scram and Diesel Fire Pump Out of Service;
- Yellow Risk during Calibration of the "A" Emergency Diesel Generator Temperature Switch;
- Yellow Risk during Reactor Building Closed Cooling Water Support Bolt Replacement; and
- Yellow Risk during the week of August 30, 2010, due to the Shutdown Transformer and Station Blackout Emergency Diesel Generator Out of Service and the onset of Hurricane Earl.

b. Findings

Introduction: The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65 paragraph (a)(4) for Entergy's failure to identify and manage a Yellow risk condition for an unplanned half-scram. Specifically, an incorrect risk assessment resulted in Entergy not recognizing an increase in risk to a Yellow condition, and therefore no risk management actions were taken.

Description: On July 26, 2010, operators received an unplanned half-scram on the "B" channel of their Reactor Protection System (RPS) and determined the cause was a failure of the power supply to that channel. During the event, Entergy's Diesel Fire Pump was out of service for scheduled maintenance. In addition, Entergy had input into their Equipment Out of Service (EOOS) risk assessment model an increase in Loss of Offsite Power risk (LOOP risk low) for an ongoing upgrade project to their 345 kilovolt (kV) relay protection scheme. Following the half-scram, Entergy performed a risk assessment and concluded that they remained green for their equipment configuration and initiating event inputs.

The inspectors inquired with operations about the adequacy of the emergent risk assessment. Specifically, the inspectors noted that the likelihood for a reactor scram had increased due to one half ("B" channel) of the scram channels being placed in the trip condition. Following the discussion, operations performed a second risk assessment and input an increase in the trip likelihood (Trip risk medium in EOOS) into their model. Operations concluded that their risk characterization was now Yellow for their equipment configuration and the additional initiating event input. Entergy then implemented risk management actions for the Yellow condition, which included protecting the Vital Motor-Generator Set Room.

Analysis: The performance deficiency associated with this finding is that Entergy performed an incorrect risk assessment for an emergent half scram and, as a result, did not take risk management actions as specified by 10 CFR 50.65(a)(4). Traditional Enforcement did not

apply as the issue did not have actual or potential safety consequence, had no willful aspects, nor did it impact the NRC's ability to perform its regulatory function.

A review of NRC Inspection Manual Chapter (IMC) 0612, Appendix E, "Minor Examples," identified that Section 7, Maintenance Rule, Example e, reflected a similar more than minor example. This finding was determined to be more than minor because Entergy did not consider the increase in Initiating Event likelihood, where the outcome of the overall elevated plant risk put the plant into a higher risk management category and thereby required additional risk management actions. In addition, the finding affected the Human Performance attribute of the Initiating Events cornerstone's objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. The inspectors performed an evaluation in accordance with IMC 0609, "Significance Determination Process," Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," because the finding related to Entergy's assessment and management of risk. The finding was determined to be of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the medium trip risk for the duration of the activity was less than 1.0 E-6 per year (approximately 1.0 E-9 per year).

The inspectors determined that this finding had a cross-cutting aspect in the Human Performance cross-cutting area, Decision Making component, because when faced with an unexpected plant condition, Entergy did not correctly implement its systematic process to make an appropriate risk-significant decision. [H.1(a)]

Enforcement: 10 CFR 50.65 paragraph (a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," states, in part, that "...the licensee shall manage the increase in risk that may result from the proposed maintenance activities." Contrary to the above, on July, 26, 2010, Entergy incorrectly assessed the increased risk that resulted from an emergent condition. As a result, Entergy did not recognize the Yellow risk condition and thus did not take any risk management actions. Corrective actions included Entergy upgrading their risk characterization to Yellow and taking risk management actions which included protecting the Vital Motor-Generator Set Room. Because of the very low safety significance and because it has been entered into the corrective action program (CR-PNP-2010-3440), the NRC is treating this as a non-cited violation (NCV), consistent with Section 2.3.2 a of the NRC's Enforcement Policy. **(NCV 05000293/2010004-01, Failure to Manage a Yellow Risk Condition for an Unplanned Half Scram)**

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (5 samples)

The inspectors reviewed five operability determinations associated with degraded or non-conforming conditions to determine if the operability determination was justified and if the mitigating systems or barriers remained available such that no unrecognized increase in risk had occurred. The inspectors also reviewed compensatory measures to determine if the compensatory measures were in place and were appropriately controlled. The inspectors reviewed Entergy's performance against related Technical Specifications and Updated Final Safety Analysis Report requirements. The documents reviewed during this inspection are listed in the Attachment. The inspectors reviewed the following degraded or non-conforming conditions:

- CR-PNP-2010-2264, Scram Discharge Volume West Not Drained Alarm;
- CR-PNP-2010-2355, Lack of Board Certified Rated Capacities for Safety Relief Valves;
- CR-PNP-2010-2935, High Pressure Coolant Injection Steam Admission Valve Packing Leak;
- CR-PNP-2010-2594, Reactor Building Closed Cooling Water Suction Header for Both Loops Show Signs of Degradation; and
- CR-PNP-2010-2645, Buried Condensate Storage Tank Transfer Piping Indications.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Modification to Modify Drain Piping to Facilitate Validating the Integrity of the Main Stack Drain Line

a. Inspection Scope (1 sample)

The inspectors reviewed Temporary Modification EC 23807, "Modify Drain Piping to Facilitate Validating the Integrity of the Main Stack Drain Line," to determine whether the integrity of Secondary Containment had been degraded through the modification. The inspectors reviewed Control Room drawings, calculations, work orders, and limiting condition of operation logs to ensure the temporary modification did not adversely affect the integrity of secondary containment. The inspectors reviewed the annotated drawings to determine whether they properly reflected the temporary modification. The inspectors also walked down the High Pressure Coolant Injection Control Panel Room to review the installed modification. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

.2 Temporary Modification to Gag AO-N-98 in the Open Position

a. Inspection Scope (1 sample)

The inspectors reviewed Temporary Modification EC 23892, "Gag AO-N-98 in the Open Position," to determine whether the performance capability of the Standby Gas Treatment (SBGT) System had been degraded through the modification. The inspectors reviewed Control Room and procedural drawings, relevant condition reports, and work orders to ensure the temporary modification did not adversely affect the SBGT system. The inspectors reviewed the annotated drawings to determine whether they properly reflected the temporary modification. The inspectors also walked down the Traversing In-Core Probe room to review the installed modification. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope (6 samples)

The inspectors reviewed six samples of post-maintenance tests during this inspection period. The inspectors reviewed these activities to determine whether the post-maintenance test adequately demonstrated that the safety-related function of the equipment was satisfied given the scope of the work performed, and that operability of the system was restored. In addition, the inspectors evaluated the applicable test acceptance criteria to verify consistency with the associated design and licensing bases, as well as Technical Specification requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. The documents reviewed during this inspection are listed in the Attachment. The following maintenance activities and their post-maintenance tests were evaluated:

- Voltage Balance Relay Replacement for Relay 160-609 on the "B" Emergency Diesel Generator;
- "C" Salt Service Water Pump Rebuild;
- Replace Reactor Building Closed Cooling Water Temperature Control Valve Linkage;
- Electric Fire Pump Replacement;
- Temporary Modification to Gag Open AO-N-98; and
- Station Blackout Emergency Diesel Generator, Shutdown Transformer and A8 Bus Relay Maintenance.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (5 samples)

The inspectors witnessed five surveillance activities and/or reviewed test data to determine whether the testing adequately demonstrated equipment operational readiness and the ability to perform the intended safety-related functions. The inspectors reviewed selected prerequisites and precautions to determine if they were met, and if the tests were performed in accordance with the procedural steps. Additionally, the inspectors evaluated the applicable test acceptance criteria for consistency with associated design bases, licensing bases, and Technical Specification requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. The documents reviewed during this inspection are listed in the Attachment. The following surveillance tests were evaluated:

- Control Rod Weekly Exercise;
- High Pressure Coolant Injection Quarterly In-Service Test (IST);
- Station Blackout Emergency Diesel Generator Test;
- Core Spray Keepfill Check; and
- Reactor Coolant System (RCS) Leakage Detection.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

Cornerstone: Emergency Preparedness

a. Inspection Scope (1 sample)

The inspectors observed licensed operator "as-found", simulator training on July 26, 2010. The inspectors evaluated the operating crew activities related to an accurate and timely classification and notification of a site area emergency. Additionally, the inspectors assessed the ability of training evaluators to adequately address operator performance deficiencies identified during the exercise. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

2. RADIATION SAFETY (RS)

Cornerstone: Occupational/Public Radiation Safety

2RS06 Gaseous and Liquid Effluent Treatment (71124.06)

a. Inspection Scope

During the period July 12, 2010 through July 15, 2010, the inspectors performed the following activities to verify the gaseous and liquid effluent systems are maintained, and discharges and conditions are controlled in accordance with applicable regulatory requirements and Pilgrim procedures.

Inspection Planning

The inspectors reviewed the Effluent and Waste Disposal 2008 Annual Report. The inspectors noted no anomalous results and reviewed the effluent monitor operability issues reported. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR) and descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths. The inspectors reviewed the changes made to revision 10 of Pilgrim's Offsite Dose Calculation Manual (ODCM). The inspectors verified there were no systems

contaminated with licensed material that were previously uncontaminated. The inspectors reviewed reported groundwater monitoring results, and changes to the Pilgrim written program for identifying and controlling contaminated spills/leaks to groundwater. The inspectors reviewed reports and procedures for the effluent program.

Walk-downs and Observations

The inspectors walked down accessible components of the gaseous and liquid discharge systems. The inspectors verified the equipment configuration and flow paths aligned with the UFSAR. The inspectors observed the equipment physical condition. The inspectors determined no condition surveillance records exist for areas that are not readily accessible. The inspectors walked-down the filtered ventilation systems and verified there were no degraded High Efficiency Particulate Assemblies or charcoal banks, improper alignment, or system installation issues that would impact performance, or the effluent monitoring capability, of the effluent system. The inspectors observed sampling and analysis of the main stack ventilation. The inspectors verified that no changes have been made to effluent release points. The inspectors observed the simulated sampling and analysis of a Treated Water Tank (TWT) for release.

Sampling and Analysis

The inspectors verified liquid effluent sampling includes provisions for sample line flushing, vessel recirculation, and composite sampling during a release. The inspectors reviewed two release packages for releases made with monitoring equipment out of service. The inspectors verified that compensatory sampling was performed consistent with the ODCM. The inspectors verified Pilgrim is not routinely relying on the use of compensatory sampling in lieu of adequate system maintenance. Liquid releases are performed on an infrequent basis. The inspectors reviewed the inter-laboratory comparison program to verify the quality of the radioactive effluent sample analyses, and that the program included hard-to-detect isotopes.

Instrumentation and Equipment

The inspectors reviewed the methodology Pilgrim uses to determine the main stack and reactor building vent flow rates. The inspectors verified the flow rates used are consistent with the ODCM values. The inspectors reviewed surveillance test results for the standby gas treatment and the control room environmental filters system to verify they met Technical Specification acceptance criteria.

Dose Calculations

The inspectors verified there were no significant changes in the reported dose values compared to the previous Radiological Effluent Release Report. The inspectors reviewed two (2) liquid release permits to verify that projected doses to members of the public are accurate and based on representative samples. There were no gaseous release packages to review. The inspectors reviewed the analysis used to determine hard-to-detect radionuclides. The inspectors verified these radioisotopes were included in the source term. The inspectors reviewed the changes made for Revision 10 of the ODCM since the last inspection. The inspectors reviewed the latest Land Use Census and verified that no

changes were needed to the dose calculations. The inspectors verified for the release packages review, the calculated doses were within the 10 CFR Part 50, Appendix I and Technical Specification dose criteria. The inspectors verified there were no abnormal releases during this inspection period.

Groundwater Protection Implementation (GPI)

The inspectors reviewed the monitoring results of the GPI Initiative to verify Pilgrim has implemented their program as intended and to identify any anomalous results. The inspectors verified that no entries were made into the 10 CFR 50.75 (g) file during this inspection period. The inspectors verified there were no leaks or spills during this inspection period. The inspectors could not evaluate discharges from onsite surface water bodies because Pilgrim has no onsite surface water bodies. The inspectors verified that the results of groundwater monitoring are included in the Annual Radiological Effluent Release Report. The inspectors noted that Pilgrim has no new discharge points.

Problem Identification and Resolution

The inspectors reviewed Pilgrim self-assessments, audits, and special reports related to the radiological effluent treatment system to determine if identified problems were entered into the corrective action program. The inspectors verified that problems identified were put into the corrective action program and corrective actions were appropriate.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES [OA]

4OA1 Performance Indicator (PI) Verification (71151)

.1 Cornerstone: Mitigating Systems

a. Inspection Scope (3 samples)

The inspectors reviewed 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 was Nuclear Energy Institute (NEI) 99-02, Revision 6, "Regulatory Assessment Performance Indicator Guidelines." The documents reviewed during the inspection are listed in the Attachment. The following performance indicators were reviewed:

- High Pressure Injection System from the third quarter of 2009 through the second quarter of 2010 [MS07];
- Heat Removal System from the third quarter of 2009 through the second quarter of 2010 [MS08]; and
- Residual Heat Removal System from the third quarter of 2009 through the second quarter of 2010 [MS09].

b. Findings

No findings were identified.

.2 Cornerstone: Occupational/Public Radiation Safety

Radiological Effluent Technical Specification (RETS) /Offsite Dose Calculation Manual (ODCM) Radiological Effluent Occurrences [PR01]

a. Inspection Scope (1 sample)

The inspectors reviewed relevant effluent release reports for the period January 1, 2009 through December 31, 2009, for issues related to the public radiation safety performance indicator, which measures radiological effluent release occurrences that exceed 1.5 milli-rem/quarter whole body or 5.0 milli-rem/quarter organ dose for liquid effluents; 5 milli-rads/quarter gamma air dose; 10 milli-rads/quarter beta air dose; and 7.5 milli-rads/quarter for organ dose for gaseous effluents. This inspection activity represents the completion of one sample relative to this inspection area; completing the annual inspection requirement.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (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 (CR), 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

No findings were identified.

.2 Annual Sample: Operator Workarounds

a. Inspection Scope (1 sample)

The inspectors performed the annual review of operator workarounds to verify Entergy was identifying operator workaround problems at an appropriate threshold and entering them into the corrective action program. The inspectors reviewed identified workarounds to determine whether the mitigating system function was affected, whether the operator's ability to implement abnormal and emergency operating procedures was affected, and whether

appropriate procedures had been updated to reflect actual plant conditions. The inspection was accomplished through personnel interviews, plant tours, and review of station documents. The documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

No findings were identified. Operator workarounds have been identified and entered into the corrective action program for resolution. No unrecognized impacts to operator or system performance were identified, and corrective actions have been implemented to restore the affected systems.

4OA3 Event Follow-up (71153)

.1 Release of Hydrogen Gas to the Environment

a. Inspection Scope (1 sample)

On August 25, 2010, Entergy identified an increase in generator hydrogen gas usage following the return to service of a hydrogen seal oil system vacuum pump. Operators isolated the vacuum pump and generator hydrogen makeup returned to normal. Operations reviewed reporting requirements and notified the State of Massachusetts due to the release of hydrogen gas greater than the reportable quantity of 10 lbs. (approximately 20 lbs. was released). Operations also notified the Nuclear Regulatory Commission Headquarters Operations Officer. The inspectors reviewed Entergy's actions, procedures, notification requirements, and applicability of emergency action level guidance.

b. Findings

No findings were identified.

.2 Operator Performance During Main Condenser Backwash

a. Inspection Scope (1 sample)

The inspectors observed operators perform a backwash on August 1, 2010. Specifically, the inspectors observed an unplanned plant downpower to 48 percent reactor power to support the backwash of the main condenser due to fouling. The inspectors reviewed procedural guidance for station power changes and the power maneuver plan, and observed control room conduct and control of the evolution. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

4OA5 Other Activities

.1 (Closed) Temporary Instruction 2515/173, Review of the Implementation of the Voluntary Industry Groundwater Protection Initiative (GPI)

a. Inspection Scope

During the period July 12, 2010, through July 15, 2010, an NRC assessment was performed of Pilgrim's GPI program to determine whether Pilgrim implemented the voluntary Industry Groundwater Protection Initiative, dated August 2007 (Nuclear Energy Institute (NEI) 07-07, ADAMS Accession Numbers ML072610036 and ML072600292). The inspectors interviewed personnel, performed walkdowns of selected areas as needed and reviewed documentation.

GPI Objective 1.1 – Site Hydrology and Geology

The inspectors verified that a hydrology and geologic study was performed by an outside contractor to determine the predominant groundwater flow characteristics and gradients. The inspectors verified the study was reviewed by a knowledgeable utility employee. The inspectors verified that potential pathways have been identified for groundwater migration from on-site locations to off-site locations through groundwater. The inspectors verified that a five (5) year frequency has been established in Pilgrim procedures for periodic review of the hydrogeologic studies. The inspectors verified that no changes were required to the Updated Final Safety Analysis Report.

GPI Objective 1.2 – Site Risk Assessment

The inspectors verified that Pilgrim has identified structures, systems, and components (SSCs) that involve or could reasonably be expected to involve licensed material and for which there is a credible mechanism for licensed material to reach groundwater. The inspectors verified that the Pilgrim corrective action program will be used to identify and track corrective actions.

GPI Objective 1.3 – On-Site Groundwater Monitoring

The inspectors verified Pilgrim has considered the placement of monitoring wells down gradient from the plant but within the site boundary. The inspectors verified that Pilgrim considered placing sentinel wells closer to structures, systems or components (SSCs) that have the highest potential for inadvertent releases that could reach groundwater. The inspectors verified that Pilgrim has established sampling and analysis protocols, including analytical sensitivity in site procedures. The inspectors verified that a formal written program has been established for long term groundwater monitoring. The inspectors verified that the Offsite Dose Calculation Manual has not been revised to include groundwater monitoring as the monitoring locations are not included in the Radiological Environmental Monitoring Program (REMP). The inspectors verified that the analytical capabilities are periodically reviewed as part of the analytical cross check program. The inspectors verified that a long-term program has been established in Pilgrim procedures for the groundwater monitoring wells. The inspectors verified a frequency has been established in Pilgrim procedures for the periodic review of the groundwater monitoring program.

GPI Objective 1.4 – Remediation Process

The inspectors verified that written procedures have been established outlining the decision making process for the remediation of leaks and spills or other instances of inadvertent releases. The inspectors verified that an evaluation was performed of the potential for detectible levels of licensed material from planned releases of liquids and/or airborne materials.

GPI Objective 1.5 – Record Keeping

The inspectors verified that a record keeping program has been established to meet the requirements of 10 CFR 50.75 (g).

GPI Objective 2.1 – Stakeholder Briefings

The inspectors verified by discussion with Pilgrim staff and review of documentation that initial briefings have been conducted with designated State and Local officials of the site specific GPI program. The inspectors verified Pilgrim has considered including additional information or updates on groundwater protection in the annual reports for the State and Local officials.

GPI Objective 2.2 – Voluntary Communications

The inspectors verified that Pilgrim procedures establish communication protocols for communicating leaks and spills to State and Local officials. The inspectors verified that the ODCM establishes communication protocols for groundwater samples exceeding REMP reporting criteria.

GPI Objective 2.3 – Thirty Day Reports

The inspectors verified that groundwater samples are analyzed and compared to the standards and limits contained in the ODCM. The inspectors verified that no thirty day special reports for groundwater monitoring have been submitted to the Nuclear Regulatory Commission (NRC).

GPI Objective 2.4 – Annual Reporting

The inspectors verified that appropriate changes have been made to appropriate Pilgrim procedures to support the 2006 performance. The inspectors verified that all groundwater sample results are included in the Annual Radiological Effluent Release Report (ARERR). The inspectors verified that no groundwater samples taken as part of the GPI are part of the REMP program. The inspectors verified that, at the time of this inspection, no water sample results exceeded REMP reporting thresholds since the implementation of the GPI.

GPI Objective 3.1 – Perform a Self Assessment of the GPI Program

The inspectors verified that an independent individual performed the initial self assessment of the groundwater program prior to the implementation of the GPI and another self assessment performed in 2009. The inspectors verified that self assessments are specified every five years per Pilgrim procedures. The inspectors verified that the self assessment included an evaluation of all of the GPI objectives. The inspectors verified the self assessments are documented in accordance with Pilgrim procedures.

GPI Objective 3.2 – Review the Program Under the Auspices of NEI

The inspectors verified an independent individual performed an initial review after the initial assessment. The inspector verified that Pilgrim procedures require a periodic review of the GPI program every five years.

b. Findings and Assessments

No findings were identified. Implementation of the Industry GPI is voluntary. Under the final Initiative, each site was to have developed an effective, technically sound groundwater protection program by August 2008. The inspectors identified that, at the time of this inspection, Pilgrim had not taken action on all groundwater initiative objectives (as outlined in the Temporary Instruction) as follows:

GPI Objective 1.2

Pilgrim has identified SSCs that involve or could reasonably be expected to involve licensed material and for which there is a credible mechanism for licensed material to reach groundwater. However, Pilgrim has not identified work practices that involve or could reasonably be expected to involve licensed material and for which there is a credible mechanism for licensed material to reach groundwater. Pilgrim has not established a relative risk for the SSCs identified. Pilgrim has not identified existing leak detection methods for each SSC and work practice that involve or could reasonably be expected to involve licensed material and for which there is a credible mechanism for licensed material to reach groundwater.
Pilgrim has not identified potential enhancements to leak detection systems or programs. Pilgrim has not identified potential enhancements to prevent spills or leaks from reaching groundwater. Pilgrim has a written long term program; however, it has not been formalized.

GPI Objective 1.4

Pilgrim has not documented an evaluation of the decommissioning impacts resulting from remediation activities or the absence of remediation activities. However, a draft procedure has been written about the subject.

In the 2007/2008 period, in accordance with the voluntary Groundwater Protection Initiative (NEI-07-07), Pilgrim installed four monitoring wells (MW-201, 201, 203, and 204) that were located to detect potential radioactive material leakage from underground structures, systems, and components (SSCs). These wells, and two other existing monitoring wells (MW-3 and MW-4), were incorporated into Pilgrim's groundwater protection program, and

have been sampled on a quarterly basis. The samples are split with the Massachusetts Department of Public Health (MDPH). These wells have not indicated any condition perceived as an indicator of leakage from any SSC.

In May 2010, Pilgrim installed six additional groundwater monitoring wells in response to an independent self-assessment that Entergy conducted relative to Pilgrim's implementation of the NEI-07-07 objectives. These wells were identified as MW-202(I), 205, 206, 207, 208(S), and 208(I). [Note: S and I refer to Shallow and Intermediate depth). On May 16, 2010, the first sample results for these six wells were reported. All indicated typically expected results, with the exception of MW-205, which indicated 5,300 picocuries per liter (pCi/l), tritium (H-3). Subsequent sampling on June 11 indicated 8,600 pCi/l; on June 21 indicated 11,000 pCi/l; and on June 30 indicated 8,400 pCi/l. Since that time, sample results from MW-205 have continued to vary; and the highest concentration measured to-date has been approximately 25,000 pCi/l.

Entergy has been keeping the Massachusetts Emergency Management Agency (MEMA) and the MDPH informed of these conditions, and has issued notifications to the NRC in accordance with 10 CFR 50.72. The licensee has frequently met with representatives of MEMA, MDPH, and NRC to discuss its plans and investigation process for determining the source of the tritium contamination. Additionally, NRC resident inspectors and region-based inspectors have been closely monitoring the licensee's plans, process, and progress in determining the cause and source of the contamination.

The NRC confirmed that Entergy established a technical team dedicated to the resolution of this matter, and has implemented appropriate and reasonable actions to determine the source and to resolve the condition. Frequent sampling of existing wells, development of additional monitoring wells, application of ground penetrating radar surveillance, implementation of leak detection techniques on suspected underground SSCs that are in the vicinity of MW-205, and development of additional hydrological data are continuing. NRC resident inspectors are closely following the licensee's onsite activities, and the licensee is frequently communicating its plans and progress to NRC and to appropriate representatives of the State of Massachusetts.

The NRC will continue to follow the licensee's performance closely to assure conformance with regulatory requirements, and to assure that public health and safety is maintained. Based on information reviewed to-date, the groundwater condition at Pilgrim has not, nor is expect to, result in any public health and safety consequence.

.2 Strike Contingency Plan (92709)

a. Inspection Scope

Entergy developed a Security Staffing Contingency Plan to ensure a sufficient number of qualified security officers were available to maintain Pilgrim's security plan in the event that the United Government Security Officers of America, Local 25 security officers engaged in a job action upon the expiration of their contract on October 1, 2010. Using the guidance contained in NRC Inspection Procedure 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 Security Staffing Contingency Plan content and the

actions needed to implement the plan, and a review to determine whether the number of qualified security officers needed for the proper implementation of Pilgrim's Security Plan would be available.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On July 15, 2010, the regional inspector conducted a Radiation Safety and closure of TI 2515/173 exit meeting. Bob Smith, Plant General Manager, attended the meeting. At the exit meeting, the inspectors confirmed that no proprietary information was provided to the inspectors for the inspection.

On October, 13, 2010, the resident inspectors conducted an exit meeting and presented the preliminary inspection results to Mr. Kevin Bronson, 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: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy personnel:

S. Bethay	Director, Nuclear Safety Assurance
R. Bowen	Chemistry Technician
K. Bronson	Site Vice President
G. Dechen	Engineer, Underground Pipes and Tanks
V. Fallacara	Engineering Director
W. Lobo	Licensing Engineer
J. Lynch	Licensing Manager
J. Macdonald	Assistant Operations Manager-Shift
T. McElhinney	Chemistry Manager
D. Noyes	Operations Manager
B. Panzarella	Chemistry Technician
J. Priest	Radiation Protection Manager
J. Scheffer	Chemistry Supervisor
K. Sejkora	Staff Chemist
R. Smith	General Manager, Pilgrim Operations

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

NCV 05000293/2010004-01	Failure to Manage a Yellow Risk Condition for an Unplanned Half Scram (Section 1R13)

LIST OF DOCUMENTS REVIEWED

Section 1R01

Procedure 2.2.40, Revision 31, Reactor Building Heating, Cooling, and Ventilation System
Procedure 2.1.42, Revision 10, Operation During Severe Weather
Master/Local Control Center Procedure No. 2 (M/L CC2) Abnormal Conditions Alert, Revision 14
Procedure 2.2.94, Revision 106, Seawater System
Procedure 2.4.149, Revision 10, Loss of Control Room Air Conditioning
Procedure 2.4.153, Revision 19, Loss of Turbine Building/Auxiliary Bay Area Ventilation
Procedure 8.C.40, Section 3, Revision 24, Warm Weather Surveillance
Procedure 2.1.37, Revision 26, Coastal Storm – Preparations and Actions
UFSAR, Section 2.4.4, Storm Flooding Protection
CR-PNP-2010-03006, NRC review of station response to the August 22-24 coast storm identified that Procedure 2.1.37, Coastal Storm Preparations and Actions, does not direct a preemptive walkdown of the site
NUREG-0654, Appendix 1, Basis for Emergency Action Levels for Nuclear Power Facilities
Procedure 5.2.2, Revision 31, High Winds (Hurricane)
Pilgrim Station Prep Checklist for Hurricane Earl

Section 1R04

Procedure 2.2.21, Revision 77, High Pressure Coolant Injection System
Procedure 2.2.22, Revision 71, Reactor Core Isolation Cooling System
Procedure 2.2.20, Revision 73, Core Spray
UFSAR Chapter 8.10, Blackout AC power Source
Procedure 2.2.146, Revision 40, Station Blackout Diesel Generator
Drawing M264, P&ID Station Blackout Diesel Generator Set
CR-PNP-2010-3320, SBO Valve has a position of "Factory Set" with no method to verify this Position in Procedure 2.2.146

Section 1R05

Procedure 8.B.17.1, Revision 18, Inspection of Fire Door Assemblies
Fire Hazards Analysis Section Fire Area 1.21, Fire Zone 1.21, "A" RBCCW Pumps/Heat Exchanger Room
Engineering Evaluation No. 3, Unprotected Structural Steel in part of wall barriers
Fire Hazards Analysis Section Fire Area 1.10, Fire Zone 1.22, "B" RBCCW Pumps/Heat Exchanger Room
Exemption Request No. 12, Exemption for Redundant Trains of Equipment Separated by a Three-Hour Barrier
Fire Hazards Analysis, Fire Zone Data Sheet for Fire Zone 1.10A
Procedure 8.B.17.2, Revision 12, Inspection of Fire Damper Assemblies
"Exemptions to Section III.G of Appendix R" Approval Letter dated December 18, 1984
"Correction to Exemption and Safety Evaluation Related to Section III.G of Appendix R" Approval Letter dated June 10, 1985
Procedure 5.5.2, Revision 46, Special Fire Procedure
CR-2010-2945, TIP Room Discrepancies

Fire Hazards Analysis Data Sheets for Fire Area 1.10, Fire Zone 1.4
EN-DC-161, Revision 4, Control of Combustibles
EC 23807, Modify Drain Piping to Facilitate Validating the Integrity of the Main Stack Drain Line

Section 1R06

CR-PNP-2010-2594, Reactor Building Closed Cooling Water Suction header for both loops show signs of degradation and associated operability evaluation
Calculation S&SA 60, Revision 0, Flooding due to Emergency Core Cooling System Leakage Outside Containment
Calculation S&SA 61, Revision 1, Flood Level Calculations
Flood Propagation Pathway Charts
PNPS Probabilistic Safety Assessment IPE, Revision 1, Appendix E, Internal Flooding Analysis

Section 1R07

Generic Letter 89-13, Service Water System Problems Affecting Safety Related Equipment
Work Order (WO) 51674422, Tasks 1-3, "A" RBCCW HX Thermal Performance Test
Procedure 8.5.3.14.1, Revision 4, RBCCW Heat Exchanger Thermal Performance Test
Calculation M-710, Heat Exchanger Thermal Performance Testing

Section 1R11

As-Found Testing Scenario SES-171, Revision 1
Emergency Action Levels

Section 1R12

CR-PNP-2008-3736, P208C experienced high vibration and associated functional failure determination
CR-PNP-2010-2291, P208C experienced high vibration and was pulled to lock and associated functional failure determination
Maintenance Rule Basis Document for Salt Service Water System
Procedure EN-DC-205, Revision 2, Maintenance Rule Monitoring
UFSAR Chapter 8.10, Blackout AC Power Source
Procedure 2.2.146, Revision 40, Station Blackout Diesel Generator
Drawing M264, P&ID Station Blackout Diesel Generator Set
Condition Report List for Station Blackout Diesel Generator Issues Documented September 2009 through September 2010
Maintenance Rule Basis Document for Station Blackout Diesel Generator
SBO Diesel Generator System Health Report
SBO CR listing from September 2009 through September 2010

Section 1R13

Equipment Out of Service (EOOS) Tool
Risk Profile for week of July 4 – July 11, 2010
Risk Sheet for Medium Trip Risk for July 26, 2010

Risk Sheet for High Trip Risk for July 26, 2010
CR-PNP-2010-2584, Power Supply E/S 2229-BIL Blown Fuse 5-AF-30B
Work Week Schedules
Scheduler's Evaluation for Pilgrim the week of August 30, 2010
Compensatory Measures and Protected Area Sheet
Hurricane Earl Checklist
CR-PNP-2010-3440, Yellow Risk Condition Not Recognized

Section 1R15

CR-PNP-2010-2264, Scram Discharge Volume West Not Drained Alarm coming in the Control Room and associated Operability Evaluation
CR-PNP-2009-3385, Scram Discharge Volume Level Instrumentation Drifting High
ODMI Implementation Action Plan for LT-302-83D, Drifting Causing False High Level Indication, Revision 0
Alarm Response Procedure ARP-C905R-61, Revision 24
Procedure 8.M.1-32.4.1, Revision 0, Analog Trip System – Trip Calibration with Gross Fail Check Cabinet C2229-B2
CR-PNP-2010-2355, Lack of Board Certified Rated Capacities for Safety Relief Valves
CR-PNP-2010-2935, HPCI Steam Admission Valve Packing Leak
EN-OP-104, Revision 4, Operability Determination Process
Technical Specification 3.5.C, HPCI System
CR-PNP-2010-2594, Reactor Building Closed Cooling Water Suction header for both loops show signs of degradation and associated operability evaluation
CR-PNP-2009-3338, RBCCW suction header piping show corrosion is in need of mitigation
CR-PNP-2001-9145, Degraded piping on RBCCW Loop A suction piping
Mechanical Calculations, Evaluation of RBCCW suction header piping calculation M-1036, Revision 0
CR-PNP-2010-2645, Indications identified on Condensate Transfer Buried Piping
P&ID M209, Revision 67, Condensate and Demineralized Water Storage and Transfer Systems
CST System Safety Function Sheets

Section 1R18

EC 23892, Gag AO-N-98 in the Open Position
CR-PNP-2010-2716, Damper AO-N-98 found with blade not functioning properly
Procedure 8.C.4, Revision 22, Routine Running of SBGT System
Drawing M294, SBGT System
Technical Specification 3.7.B, SBGT System and Control Room High Efficiency Air Filtration System
Drawing M294, Heating, Venting and Air Conditioning SBGT System Control Diagram
UFSAR, Section 5.3, Secondary Containment System
EN-DC-134, Attachment 9.1, Design Verification Checklist
EN-LI-100, Process Applicability Determination for Temporary Modification to Gag AO-N-98 in the Open Position
UFSAR 5.3, Secondary Containment System
UFSAR 7.18, Reactor Building Isolation and Control System
Control Room Technical Specification Logs

Temporary Modification EC 23807, Modify Drain Piping to Facilitate Validating the Integrity of the Main Stack Drain Line
10 CFR Part 50.59, Screen for EC 23807
WO 244934, Installation of TMOD EC 23807
P&ID M210, Augmented Off Gas
Calculation C15.0.3381, Revision 3, Leakage Permitted for Secondary Containment
CR-PNP-2010-3285, Total known leakage for secondary containment was miscalculated

Section 1R19

WO 002122652, Task 4, Relay 160-609 Relay Replacement
Procedure 3.M.3-51, Revision 26, Electrical Termination Procedure
WO 00222652, Tasks Postwork Test for 160-609 Replacement
Procedure EN-WM-107, Revision 2, Post Maintenance Testing
Procedure 3.M.3-1, Revision 127, A5/A6 Buses 4kV Protective Relay Calibration/Functional Test And Annunciator Verification
UFSAR, Section 8.5, Standby AC Power Source
Procedure 3.M.4-14.2, Revision 56, Salt Service Water Pumps Routine Maintenance
WO 00242322-01, Rebuild "C" SSW Pump
Equivalent Change EC 0000012107, SSW Pump "C" Bolted Connections
Design Engineering Evaluation Form for WO 242322
WO 002422322-14, Compliance Package
EC 23446, Revision 0, Attachment 1, Recommended Epoxy Injection Procedure
WO 00242332-03, SSW Pump "C" Post Work Testing
Procedure 8.5.3.2.1, Revision 22, Salt Service Water Pump Quarterly and Biennial (Comprehensive) Operability and Valve Operability Tests
WO 00245886-01, TV-3835 Failed Open
EN-MA-125, Revision 6, Troubleshooting Control of Maintenance Activities
CR-2010-2812, EN-MA-125 does not discuss Post Maintenance testing requirements
WO 00235076, Tasks 1 and 3, Replace Electric Fire Pump
Procedure 8.B.15, Revision 44, Functional Tests of Fire Pumps P-135, P-140, and P-181
Procedure 3.M.4-14, Revision 37, Rotating Equipment Inspection Assembly and Disassembly
Procedure EN-WM-107, Revision 2, Post Maintenance Testing
Vendor Manual V-0251, Revision 95, Lubrication Manual
EC 23892, Gag AO-N-98 in the Open Position
Procedure 8.C.4, Revision 22, Routine Running of Standby Gas Treatment System
CR-PNP-2010-2716, Damper AO-N-98 found with blade not functioning properly
Technical Specification 3.7.B, Standby Gas Treatment System and Control Room High Efficiency Air Filtration System
Final Safety Analysis Report, Section 5.3, Secondary Containment System
Final Safety Analysis Report, 7.18, Reactor Building Isolation and Control System
Procedure 8.7.6.2, 34, SGTS Single Train Operability Test
CR-PNP-2010-2789, Post Maintenance not in accordance with Temporary Modification Requirements
CR-PNP-2010-3073, Coil Mechanism for lockout relay 186 failed to unlatch with a trip signal Present
LCO Maintenance Planning Checklist
WO 52219838, Task 1, F15 Switchyard Ground Grid Visual Inspection

WO 52202875, Tasks 1 & 2, Cal & Functional of Breaker 152-801
Procedure 3.M.3-29.1, Revision 7, A8 Bus 4kV Protective Relay Calibration and Functional Testing
WO 52202876, Task 1, Cal & Functional Test of Breaker 152-802
WO 52220914, Task 1, Shutdown Transformer to A5 & A6 Tie Relays
WO 00209609, Task 1, Repair Pull Box 1A
WO 00164156, Task 1, Replace the SDT Hot Spot Indicator Heater

Section 1R22

Procedure 8.3.2, Revision 54, Control Rod Exercise
CR-PNP-2010-2389, Procedure is unclear in indication for verifying a coupling check
Procedure 8.5.4.1, Revision 105, HPCI System Pump and Biennial Comprehensive Operability
WO 52261114, Task 1, Perform 8.5.4.1, P-205 HPCI Operability and Flow Rate Test at 100 psig
WO 52263889 01, Manually start and load Blackout Diesel Generator
Procedures 8.9.16.1, Revision 41, Manually start and load Blackout Diesel via the Shutdown transformer
CR-PNP-2010-3073, Station Blackout Lockout Relay did not unlatch with a trip signal present
CR-PNP-2010-2253, Hot Water that flashed to a steamy-water mix present when keepfill check was performed
Procedure 8.5.2.15, Attachment 3, Revision 17, LPCI System and Core Spray System keepfill checks
Operability Evaluations for CR-PNP-2009-3312 and CR-PNP-2009-3348
Drywell Leakage 7-day Rolling Average Chart
Drywell Leakage Data Sheets
Procedure 2.1.5, Revision 204, Daily Surveillance Log
Daily Log Test #48, Log the Drywell Leakage (flow integrators) on Panel C20

Section 1EP6

NEI 99-02, Revision 6, Regulatory Assessment Performance Indicator Guideline
EN-EP-201, Revision 10, Performance Indicators
EP Performance Indicator Reporting and Information Form dated July 26, 2010

Section 2RS06

Procedures:

7.1.132	Obtaining Liquid Samples, Revision 13
7.3.25	Particulate and Iodine Monitoring at the Main Stack and Reactor Building, Revision 42
7.3.31	Tritium Sampling, Revision 22
7.3.37	Noble Gas Effluent Sampling, Revision 35
7.3.48	Airborne Effluent Monitoring of the Turbine Deck and Reactor Feed Pump Bay, Revision 17
7.9.12	Liquid Effluent Releases with RETDAS, Revision 5

Condition Reports:

CR-PNP-2008-01858	CR-PNP-2008-04014	CR-PNP-2009-03662
CR-PNP-2008-03074	CR-PNP-2009-01388	CR-PNP-2009-04660
CR-PNP-2008-03636	CR-PNP-2009-02951	CR-PNP-2010-00321
CR-PNP-2008-03991	CR-PNP-2009-03353	

Audits and Assessments:

QA-02/06-2009-PNP-01,	Combined Chemistry, Effluents, and Environmental Monitoring, September 16, 2009

Ventilation Surveillances

WO 51656607'A' CREFS	August 6, 2008
WO 51677838'B' CREFS	September 24, 2008
WO 51677839'B' SBGT	September 23, 2008

Release Permits

Liquid

2010001	'A' TWT	April 2, 2010
2010005	'B' TWT	April 6, 2010

Section 4OA1

MSPI Data Sheets from 3rd Quarter 2009 to 2nd Quarter 2010 for HPCI/RCIC
Control Room Logs
HPCI/RCIC Unavailability Data Spread Sheets
NEI 99-02, Revision 6, Regulatory Assessment Performance Indicator Guideline
Licensee Event Reports
NRC Inspection Reports
RHR System Health Report
NRC Performance Indicator Technique/Data Sheets for 3rd Quarter 2009 through 2nd quarter 2010

Section 4OA2

Compensatory Actions and Disabled Annunciator Logs
Pilgrim Operator Workarounds Aggregate Impact Report
Pilgrim Operator Compensatory Measures Report

Section 4OA3

Reactor Plant Event Notification 46206, Release of Hydrogen Gas to Environment and Notification to the State of Massachusetts
Procedure 1.3.22, Revision 19, Oil Spill Prevention, Control and Counter Measure Plan
EP-AD-600, Revision 15, Emergency Action Level Basis Document
NUREG 0654, Appendix 1, Emergency Action Level Guidelines for Nuclear Power Plants
Generator Auxiliaries Reference Text
Power Maneuver Plan

Procedure 2.1.14, Revision 102, Station Power Changes
Procedure 2.2.94.5, Revision 5, Main Condenser Backwash

Section 4OA5

Procedures

EN-CY-109 Sampling and Analysis of Groundwater Monitoring Wells, Revision 2
EN-CY-111 Radiological Groundwater Monitoring Program, Revision 0

Condition Reports

CR-HQN-2008-01055
CR-PNP-2007-04048
CR-PNP-2008-00911
CR-PNP-2008-02276
CR-PNP-2009-00879
CR-PNP-2009-03635
CR-PNP-2010-00256
CR-PNP-2010-00825
CR-PNP-2010-02075
CR-PNP-2010-02316

LIST OF ACRONYMS

ARERR	Annual Radiological Effluent Release Report
ALARA	As Low As Reasonably Achievable
ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
CR	Condition Report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EDG	Emergency Diesel Generator
GPI	Groundwater Protection Initiative
HPCI	High Pressure Coolant Injection
HX	Heat Exchanger
IMC	Inspection Manual Chapter
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PI	Performance Indicator
PNPS	Pilgrim Nuclear Power Station
RBCCW	Reactor Building Closed Cooling Water
RCIC	Reactor Core Isolation Cooling
RPS	Reactor Protection System
REMP	Radiological Environmental Monitoring Program
SBGT	Standby Gas Treatment
SBO	Station Blackout
SSC	Structure, System or Component
SSW	Salt Service Water
TWT	Treated Water Tank
UFSAR	Updated Final Safety Analysis Report
WO	Work Order