



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

May 6, 2009

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

SUBJECT: PILGRIM NUCLEAR POWER STATION - NRC INTEGRATED INSPECTION  
REPORT 05000293/2009002

Dear Mr. Bronson:

On March 31, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Pilgrim Nuclear Power Station (PNPS). The enclosed inspection report documents the results, which were discussed on April 8, 2009, 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.

The report documents two NRC-identified findings of very low safety significance (Green). Both of these findings were determined to involve violations of NRC requirements. However, because the findings are of very low safety significance and the findings have been entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest these NCVs, 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 of Region I; the Director, Office of Enforcement; and the NRC Resident Inspectors at PNPS. In addition, if you disagree with the characterization of any 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 Resident Inspectors at PNPS. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

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Sincerely,

**/RA/**

Mel Gray, Chief  
Projects Branch 2  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000293/2009002  
w/Attachment: Supplemental Information

cc w/encl:

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Commonwealth of Massachusetts, Secretary of Public Safety

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-293

License No: DPR-35

Report No: 05000293/2009002

Licensee: Entergy Nuclear Operations, Northeast (Entergy)

Facility: Pilgrim Nuclear Power Station (PNPS)

Location: 600 Rocky Hill Road  
Plymouth, MA 02360

Inspection Period: January 1, 2009 through March 31, 2009

Inspectors: M. Schneider, Sr. Resident Inspector, Division of Reactor Projects (DRP)  
M. Davis, Acting Sr. Resident Inspector, DRP  
B. Smith, Resident Inspector, DRP

Approved By: Mel Gray, Chief  
Projects Branch 2  
Division of Reactor Projects

Enclosure

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## SUMMARY OF FINDINGS

IR 05000293/2009-002; 01/01/2009 - 03/31/2009; Pilgrim Nuclear Power Station; Maintenance Effectiveness and Operability Evaluations.

The report documents the results of a three-month period of inspection by the resident inspectors. Two Green findings were identified, both of which were determined to be non-cited violations (NCVs). The significance for 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 each finding was determined using IMC 0305, "Operating Reactor Assessment Program." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

**Cornerstone: Mitigating Systems**

- Green. The inspectors identified a non-cited violation (NCV) of very low safety significance of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because Entergy personnel did not establish and maintain measures to monitor critical design parameters to assure that equipment and processes essential to the safety-related function of the emergency diesel generator (EDG) air start system were adequate. Specifically, Entergy did not establish adequate measures to assure that an adequate supply of air was available to the air receivers for a minimum of two cold engine starts without recharging. This resulted in the "A" EDG being inoperable on March 8, 2009. Entergy entered this issue into their corrective action program (CAP) for resolution as CR-PNP-2009-00807. The immediate corrective actions included establishing compensatory requirements to increase the monitoring frequency for the air start system critical parameters.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the finding affected the reliability of the EDG to ensure a minimum of two cold engine starts without recharging to help mitigate the consequences of design basis events. The inspectors determined that the finding is of very low safety significance (Green) because it is not a design or qualification deficiency, did not represent a loss of safety function, and did not screen as potentially risk significant due to external events.

There is no cross-cutting aspect identified for this finding because the inspectors determined that the performance deficiency is not reflective of current plant performance. The monitoring frequencies of the EDG air start system critical parameters were established for an extended period and prior to this problem there had not been recent issues with monitoring EDG air start capability. (Section 1R12)

- Green. The inspectors identified an NCV of very low safety significance of Technical Specification 5.4.1 “Procedures,” because Entergy personnel did not adequately implement procedure requirements in accordance with EN-MA-133, “Control of Scaffolding.” Specifically, personnel did not erect scaffold in accordance with procedure EN-MA-133 and maintain the minimum distance erection requirements for safety-related equipment or alternatively perform engineering evaluations that concluded the equipment will not be impacted by the scaffolds. Entergy entered this issue into their CAP for resolution as CR-PNP-2009-00064, implemented prompt actions to correct the scaffolds, and performed engineering evaluations to assess the affect of the scaffolds on the safety-related equipment.

The finding is more than minor because it is associated with the external factors attribute of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, the finding is similar to example 4.a in Appendix E of IMC 0612 in that personnel did not routinely perform engineering evaluations for scaffolds constructed less than the minimum allowed distance to safety-related equipment. The inspectors determined that the finding is of very low safety significance (Green) because the scaffold issues identified were not a design or qualification deficiency, did not represent a loss of safety function, and did not screen as potentially risk significant due to external events.

This finding has a cross-cutting aspect in the area of Human Performance because Entergy’s supervisory and management staff did not provide adequate oversight of workers or communicate expectations to workers to ensure scaffold erection requirements were fully understood (H.4.c of IMC 305). (Section 1R15)

B. Licensee-Identified Violations

None.

## REPORT DETAILS

Summary of Plant Status

Pilgrim Nuclear Power Station (PNPS) operated at or near 100 percent reactor power during the inspection period with the following exceptions: On February 4, 2009, Entergy operators reduced reactor power to 75 percent as requested by the Independent System Operator- New England (ISO-NE) due to work on the offsite grid and resumed full power the same day. On February 12, 2009, operators reduced reactor power to 54 percent as requested by ISO-NE due to work on the offsite grid and resumed full power the following day. On February 22, 2009, operators reduced reactor power to 75 percent to perform a rod pattern adjustment and resumed full power the same day. On March 16, 2009, operators reduced reactor power to 72 percent to perform a rod pattern adjustment and resumed full power the same day. Operators maintained the reactor at 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 – 2 samples).1 Seasonal Susceptibilitya. Inspection Scope

The inspectors reviewed actions taken by Entergy personnel in preparation for the onset of cold weather during the week of January 19, 2009. The inspectors reviewed procedure 8.C.40, Seasonal Weather Surveillance, and verified selected steps were completed. The inspectors walked down selected areas addressed in the procedure to determine if heat tracing as well as ventilation systems were properly working. The inspectors walked down portions of the intake structure, salt service water pump area and the technical support center emergency diesel generator room. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Impending Winter Storma. Inspection Scope

On February 3, 2009, a winter storm warning was in affect for the surrounding areas of the site. The inspectors reviewed Entergy's preparations for the impending winter storm as well as for the high winds expected to accompany the storm. The inspectors reviewed procedure 2.1.37, Coastal Storm Preparations and Actions. The inspectors conducted a tour of the plant grounds and the switchyard to determine if loose debris or other material could become airborne in the presence of high winds or if snow accumulation could impact

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safety-related equipment. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns (71111.04Q - 4 samples)

a. Inspection Scope

The inspectors performed four partial system walkdowns during this inspection period. The inspectors reviewed the documents listed in the Attachment to determine the correct system alignment. The inspectors conducted 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 discrepancies that may adversely impact operability. The walkdowns included selected switch and 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 documents reviewed during the inspection are listed in the Attachment.

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

- Core spray (CS) "A" while CS "B" was out of service for maintenance;
- Reactor core isolation cooling (RCIC) following maintenance on the RCIC alternate shutdown panel;
- Residual heat removal (RHR) "A" with RHR "B" out of service; and
- "B" emergency diesel generator (EDG) with the "A" EDG out of service.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown (71111.04S – 1 sample)

a. Inspection Scope

The inspectors completed a detailed review of the salt service water (SSW) system to verify the functional capability of the system. The inspectors conducted a walkdown of the system to determine whether the critical components, such as valves, switches, and breakers were aligned in accordance with procedures and to identify discrepancies that could impact system operability. The inspectors discussed system health such as material condition and vibration trending data with the system engineer to determine whether known deficiencies significantly affected the SSW system function. The inspectors also reviewed condition reports (CRs) to determine whether SSW equipment problems were being

identified and appropriately resolved. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

Fire Protection - Tours (71111.05Q - 5 samples)

a. Inspection Scope

The inspectors performed walkdowns of five fire protection areas during the inspection period. The inspectors reviewed Entergy's fire protection program to determine the required fire protection design features, fire area boundaries, and combustible loading requirements for the selected areas. The inspectors walked down areas to assess Entergy's control of transient combustible material and ignition sources. The inspectors also evaluated the material condition and operational status of fire detection and suppression capabilities, fire barriers, and related compensatory measures. The inspectors then compared the existing condition of the areas to the fire protection program requirements to determine whether program requirements were met. In addition, the inspectors reviewed Entergy's response and contingency plan for backup fire fighting capabilities from January 8 to January 9, 2009, following a fire system pipe rupture near the Health Physics check point. The fire system pipe rupture on January 8, 2009, degraded portions of the station's fire water system. The documents reviewed during the inspection are listed in the Attachment. The fire protection areas reviewed were the following:

- Multiple fire areas affected by the fire system pipe rupture on January 8, 2009;
- Fire Area 1.9, Fire Zone 1.11 - east side on elevation 51' and reactor water cleanup equipment area;
- Fire Area 1.10, Fire Zone 1.28 - recirculation pump motor generator set room;
- Fire Area 1.21, Fire Zone 1.21- reactor building closed cooling water (RBCCW) pump room; and
- Fire Area 1.10, Fire Zone 1.3 - high pressure coolant injection (HPCI) pump room.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07 – 1 sample)

a. Inspection Scope

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" turbine building closed cooling water (TBCCW) heat exchanger was selected for detailed review by the inspectors. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

Resident Inspector Quarterly Review (71111.11Q – 1 sample)

a. Inspection Scope

The inspectors observed one sample of licensed operator requalification testing on January 12, 2009. Specifically, the inspectors observed crew response to an accident scenario involving the loss of the main transformer and "B" emergency diesel generator followed by a loss of offsite power, and a subsequent loss of coolant accident. The inspectors assessed the testing to determine if the training evaluators adequately addressed observed deficiencies regarding crew response and the use of emergency operating procedures and emergency action level classification and notification procedures. In addition, the inspectors conducted a simulator fidelity review to determine if the arrangement of the simulator instrumentation and controls closely paralleled that of the control room. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q – 2 samples)

a. Inspection Scope

The inspectors reviewed performance-based problems that involved structures, systems, and components (SSCs) to assess the effectiveness of maintenance activities. When applicable, the reviews focused on:

- Proper Maintenance Rule scoping in accordance with 10 CFR 50.65;
- Characterization of reliability issues;
- Changing system and component unavailability;
- 10 CFR 50.65(a)(1) and (a)(2) classifications;
- Identifying and addressing common cause failures;
- Trending of system flow and temperature values;
- Appropriateness of performance criteria for SSCs classified (a)(2); and

- Adequacy of goals and corrective actions for SSCs classified (a)(1).

The inspectors also reviewed system health reports, maintenance history, and Maintenance Rule basis documents. The inspectors evaluated maintenance effectiveness and monitoring activities to the requirements of 10 CFR 50.65. The documents reviewed during this inspection are listed in the Attachment. The following Maintenance Rule samples were reviewed:

- “A” emergency diesel generator starting air motors; and
- Reactor building closed cooling water system.

b. Findings

Introduction: The inspectors identified a non-cited violation (NCV) of very low safety significance (Green) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” because Entergy personnel did not establish and maintain measures to monitor critical design parameters to assure that equipment and processes essential to the safety-related function of the emergency diesel generator (EDG) air start system were adequate. Specifically, personnel did not establish sufficient measures to monitor critical design parameters for the EDG air start system to ensure that an adequate quantity of air would be available in the air receivers to perform a minimum of two cold engine starts without recharging the air receivers.

Description: On March 8, 2009, Pilgrim operators declared the “A” EDG inoperable because the starting air pressures for both air receiver tanks decreased below the minimum required pressure of 225 pounds per square inch (psi). An operator identified the two air receiver tanks at 200 psi while performing a training exercise in the EDG room. The pressure in the tanks decreased because the control power fuse blew on the air compressor. Normally, the air compressor operates automatically to maintain the pressure in the air receiver tanks between 235 and 250 psi to ensure that an adequate supply of air is available to perform a minimum of two cold engine starts without recharging the receivers. The two cold engine starts without air recharging is the design function of the air start system to maintain the starting capability of the EDG. Generally, operators perform a surveillance to monitor the air compressor and air receiver tanks’ parameters on a weekly basis.

During inspection follow-up, the inspectors reviewed operator logs, EDG surveillance procedures, alarm response procedures, condition reports, and the daily round entries. The inspectors determined that personnel did not provide sufficient monitoring for the EDG air start system’s critical parameters to ensure that an adequate quantity of air is available in the air receivers to perform a minimum of two cold engine starts without recharging the receivers. The inspectors observed that there is not an alarm to alert operators of a low pressure condition in the air receiver tanks. The inspectors determined that the low pressure alarm located downstream of the air receiver tanks and after a pressure reducing valve monitors the delivery pressure to the air start motors, but does not ensure that the air receiver tanks remain above their minimum required pressure of 225 psi.

Additionally, the inspectors determined that the frequency of procedurally required operator

checks and surveillances do not assure the critical parameters of the EDG air start system remain in specification to assure operability. Specifically, the inspectors determined that without an air receiver tank low pressure alarm, the EDG air start system leak rate acceptance criteria described in plant procedures allows the air receivers to leak at a rate that can render the EDG air start system inoperable for a period of time when considering the frequency of operator monitoring. For example, with the specified air start system leak rate acceptance criterion of 18.8 psi in four hours and an initial air receiver pressure of 250 psi, if operator rounds are not performed within eight hours and there is a malfunction of the air compressor, the air receiver tanks would drop below the minimum required pressure of 225 psi. The inspectors determined that performing operator checks once a week does not ensure that the design function of the air start system is met because there is an opportunity for the pressure in the tanks to decrease below their minimum required pressure without operators' knowledge as evidenced in the case with the blown fuse.

Analysis: The inspectors identified a performance deficiency related to Entergy personnel not establishing and maintaining adequate measures to monitor critical design parameters for the EDG air start system such that an adequate supply of air is available for a minimum of two cold engine starts without recharging. This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the absence of an air receiver tank low pressure alarm combined with frequency of operator monitoring of the air start system's critical parameters affected the reliability of the "A" EDG starting air system. The inspectors evaluated this finding using IMC 0609 Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because it is not a design or qualification deficiency, did not represent a loss of safety function, and did not screen as potentially risk significant due to external events.

There is no cross-cutting aspect identified for this finding because the inspectors determined that the performance deficiency is not reflective of current plant performance. The monitoring frequencies of the EDG air start system critical parameters were established for an extended period and prior to this problem there had not been recent issues with monitoring EDG air start capability.

Enforcement: 10 CFR 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures shall be established for the selection and review for the suitability of application of materials, parts, equipment, and process that are essential to the safety-related functions of the structures, systems and components. Contrary to the above, prior to March 08, 2009, Entergy personnel did not adequately consider the suitability of alarms and processes that monitor critical parameters for the EDG air start system to ensure an adequate supply of air is available for a minimum of two cold engine starts without recharging the air receivers. Entergy took corrective action to increase the monitoring frequency for the air start system critical parameters suitable to their alarm design. Because this issue is of very low safety significance (Green) and was entered into Entergy's CAP as CR-PNP-2009-00807, this violation is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 05000293/2009002-01, Failure to Establish and Maintain Adequate Measures to Monitor Critical**

**Parameters of the EDG Air Start System)**1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 6 samples)a. Inspection Scope

The inspectors evaluated six on-line 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 verified the appropriate use of Entergy's risk assessment tool, Equipment Out of Service (EOOS), and entry into appropriate risk categories. The inspectors evaluated whether Entergy personnel 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 the inspection are listed in the Attachment. The inspectors reviewed the adequacy of maintenance risk assessments for the following maintenance and testing activities:

- Emergent maintenance when the 120V AC safety bus (Y2) was powered by the backup B-15 power supply with reactor core isolation cooling (RCIC) out of service;
- Planned maintenance with RCIC out of service due to alternate shutdown panel testing;
- Planned maintenance on the high pressure coolant injection system and the "A" turbine building closed cooling water heat exchanger;
- Planned maintenance on the "B" residual heat removal system motor operated valves;
- Planned maintenance on the electric fire pump and station blackout diesel; and
- Planned maintenance when A6 electrical bus was inoperable due to load shed testing.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - 5 samples)a. Inspection Scope

The inspectors reviewed five operability determinations associated with degraded or non-conforming conditions to determine if the operability determinations were justified and if the mitigating systems or those affecting barrier integrity 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 for conformance to applicable Technical Specifications (TS) and UFSAR requirements. The documents reviewed during the inspection are listed in the Attachment. The inspectors reviewed the following degraded or non-conforming conditions:

- CR-PNP-2009-00064, Scaffolding erected in "B" residual heat removal/torus room in

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- violation of clearance requirements;
- CR-PNP-2009-00097, Bolts on torus access hatch found not fully tight;
- CR-PNP-2009-00360, "A" EDG abnormal damper position issue;
- CR-PNP-2009-00560, High pressure coolant injection steam admission valve (MO-2301-3) failed to fully close on demand; and
- CR-PNP-2009-00234, EDG day tank enclosures colder than expected.

b. Findings

Introduction: The inspectors identified a non-cited violation of very low safety significance (Green) of Technical Specification 5.4.1 "Procedures," because Entergy personnel did not implement procedure requirements in accordance with EN-MA-133, "Control of Scaffolding." Specifically, personnel did not erect scaffolds in accordance with procedure EN-MA-133 and maintain minimum distance erection requirements from safety-related equipment or alternatively perform engineering evaluations that conclude the equipment will not be impacted by the scaffolds.

Description: On January 7, 2009, during a walkdown of equipment in safety-related areas, the inspectors identified several instances where erected scaffolding did not comply with the requirements of Entergy's scaffolding procedure EN-MA-133. Specifically, Entergy's scaffolding procedure requires all seismic scaffolding erected in safety-related areas to maintain at least a 2-inch clearance from safety-related equipment and a 3-inch clearance from expanding system components. In the event that scaffolding cannot be erected in accordance with the requirement stated above, an engineering evaluation is required. Contrary to the procedure, the inspectors identified the following scaffolds within the minimum allowed distance with no engineering evaluation:

- Less than 1" clearance between the scaffold and the "B" core spray pump body;
- Approximately 1/8" clearance between the scaffold and RBCCW pipe;
- Approximately 1/4" clearance between the scaffold and hand wheel of the RHR "B" pump discharge valve;
- Approximately 1/2" clearance between scaffold bracing and the RHR "D" pump motor lifting lug; and
- A ladder and scaffold knuckle were in direct contact with the torus shell at one location, the scaffold support was less than 1/2" to the torus saddle at another location, and at two more locations scaffolds were less than 1" away from the torus shell.

The inspectors communicated this concern to the on-duty shift manager. Entergy dispatched personnel to correct the scaffolding pole arrangement for the torus, requested engineering evaluations to assess the affect of the scaffolds on the plant equipment, and performed an extent of condition (EOC) walk down of other safety-related equipment areas. However, during a subsequent walkdown on March 26, 2009, the inspectors identified an additional scaffold not in accordance with Entergy's scaffold procedure. An erected scaffold in preparation for the refueling outage had been tied off to the "B" core spray safety-related pipe with no engineering evaluation performed. The inspectors determined that Entergy's procedural expectations were not well defined as operations, engineering, and supplemental workers were not fully familiar with the requirements of EN-MA-133. The inspectors concluded that the training and qualifications were inadequate in

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familiarizing personnel with plant guidelines as it relates to preventing impact damage during a seismic event to safety related equipment. Furthermore, Entergy supervisory personnel did not follow-up with pre-job briefings to reinforce seismic expectations and identify shortcomings in the training.

This finding is related to a weakness in Entergy's scaffold control program. The inspectors also identified that the procedure directs operations to review the potential effects of scaffold activities including review and inspection of long-term scaffolds in all risk significant areas. The torus shell scaffold had been erected since February 26, 2001. However, no 50.59 evaluation was performed as required by EN-MA-133. Entergy personnel entered these issues into their corrective action program for resolution, took actions to correct the scaffolds, and performed engineering evaluations to assess the affect of the scaffolds on the safety-related equipment. The evaluations determined that the scaffolds did not adversely affect the plant equipment.

Analysis. The inspectors identified a performance deficiency in that in some instances Entergy personnel did not implement station procedures when assembling scaffolding in safety-related areas of the plant. The finding is more than minor because it is associated with the external factors and equipment performance attributes of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The finding is also similar to example 4.a in Appendix E of IMC 0612 in that Entergy personnel did not routinely perform engineering evaluations for scaffolds constructed within the minimum allowed distance of safety related equipment. The inspectors evaluated this finding using IMC 0609 Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding is of very low safety significance (Green) because it is not a design or qualification deficiency, did not represent a loss of safety function, and did not screen as potentially risk significant due to external events.

This finding has a cross-cutting aspect in the area of Human Performance because Entergy supervisory and management personnel did not ensure oversight of work activities, including contractors, such that nuclear safety is supported. Specifically, Entergy personnel were not familiar with the requirements of EN-MA-133 due to Entergy's supervisory and management not effectively communicating and reinforcing expectations related to erection of scaffolds (H.4.c of IMC 0305).

Enforcement. Technical Specification 5.4.1, "Procedures", requires, in part, that written procedures be implemented as recommended in NRC Regulatory Guide (RG) 1.33, "Quality Assurance Program Requirements," Revision 2, Appendix A, February 1978. RG 1.33, Appendix A, Section 9 includes procedures for performing maintenance on safety-related equipment. Contrary to the above, since January 7, 2009, there were multiple examples where Entergy personnel and contractors did not implement procedure EN-MA-133, "Control of Scaffolding," requirements in that all seismic scaffolding is required to maintain at least a 2-inch clearance from safety related equipment or have an engineering evaluation performed. Entergy's corrective actions included restoring identified scaffolds into compliance with procedure EN-MA-133, performing engineering evaluations on all scaffolds found to be within clearance requirements, re-inspecting all existing scaffolds, and coaching operators to walk down existing scaffolds to identify any conditions adverse



to quality. Because this finding is of very low significance and Entergy entered it into their corrective action program (CR-PNP-2009-00050, CR-PNP-2009-00051, CR-PNP-2009-00064, and CR-PNP-2009-01086), this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 05000293/2009002-02: Failure to Implement Scaffolding Procedure Requirements)**

1R18 Plant Modifications (71111.18 – 1 sample)

a. Inspection Scope

The inspectors reviewed temporary modification engineering change (EC) 12705, Reconfigure Alternate Power Feed Leads for MO-1001-28A in MCC Unit 52M-2031, to determine whether the performance capability of the “A” residual heat removal Injection valve breaker had been degraded through the modification. The inspectors reviewed electrical drawings, relevant condition reports, procedures, and the 10 CFR 50.59 screening to ensure the temporary modification did not adversely affect the breaker’s electrical capability to provide power to the motor operated valve. The inspectors reviewed the updated electrical drawings to determine whether they properly reflected the temporary modification. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 – 7 samples)

a. Inspection Scope

The inspectors reviewed seven samples of post maintenance tests (PMT) during this inspection period. The inspectors reviewed these activities to determine whether the PMT adequately demonstrated the safety-related function of the equipment, 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 TS requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. The documents reviewed during the inspection are listed in the Attachment. The following maintenance activities and their post-maintenance tests were evaluated:

- Leak rate testing on the torus man way covers;
- “A” residual heat removal injection throttle valve (MO-1001-28A) maintenance;
- Replacement of the alternate shutdown panel reactor core isolation cooling flow controller;
- Adjustment and lubrication of EDG limit switches due to an abnormal damper position alarm;
- Re-sleeve of the “A” TBCCW heat exchanger
- “B” residual heat removal motor operated valve maintenance; and
- Reactor building closed cooling water seal replacement on the “C” pump.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 – 7 samples)a. Inspection Scope

The inspectors reviewed seven samples of surveillance activities 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 performance of surveillance activities to determine if the tests were performed in accordance with procedures. Additionally, the inspectors evaluated the applicable test acceptance criteria for consistency with associated design bases, licensing bases, and TS requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. The documents reviewed during the inspection are listed in the Attachment. The following surveillance tests were evaluated:

- RCIC high water level turbine trip/auto-restart logic test;
- RCIC surveillance from alternate shutdown panel;
- RBCCW “C” in-service testing surveillance;
- Reactor coolant system leakage detection surveillance;
- “A” EDG and associated emergency bus surveillance;
- High pressure coolant injection simulated automatic actuation, flow rate and cold quick start test; and
- “B” and “D” residual heat removal pump tests.

b. Findings

No findings of significance were identified.

**Cornerstone: Emergency Preparedness**1EP6 Drill Evaluation (71114.06 – 1 simulator training sample)a. Inspection Scope

The inspectors observed licensed operator requalification testing on January 12, 2009. The inspectors evaluated the operating crew activities related to accurate and timely classifications and notifications of emergency action level (EAL) declarations. Additionally, the inspectors assessed the ability of training evaluators to adequately address operator performance deficiencies identified during the exercise. The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

#### 4. OTHER ACTIVITIES (OA)

##### 4OA1 Performance Indicator (PI) Verification (71151)

###### Barrier Integrity Cornerstone (71151 - 1 sample)

###### a. Inspection Scope

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, system health reports, and NRC inspection reports. The acceptance criteria used for the review was Nuclear Energy Institute (NEI) 99-02, Revision 5, "Regulatory Assessment Performance Indicator Guidelines." The documents reviewed during the inspection are listed in the Attachment. The following performance indicator was reviewed:

- Reactor Coolant System Unidentified Leakage from the first quarter of 2008 through the fourth quarter of 2008.

###### b. Findings

No findings of significance were identified.

##### 4OA2 Identification and Resolution of Problems (71152)

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

###### a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and to identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of all items entered into Entergy's corrective action program. The review was accomplished by accessing Entergy's computerized database for condition reports, and attending condition report screening meetings.

###### b. Findings

No findings of significance were identified.

###### .2 Annual Sample: Review of Security Department Procedure Implementation (1 sample)

###### a. Inspection Scope

The inspectors focused on Entergy's problem identification, evaluation, and resolution of a potential adverse trend identified in security-related work practices and procedure compliance in the area of human performance. On September 12, 2008, inspectors completed a security baseline inspection at the PNPS (ADAMS Accession No. ML082940103). Three of the findings identified during the inspection had a cross-cutting aspect in the area of human performance. Entergy initiated condition reports (CR-PNP-2008-03584, CR-PNP-2008-03586, and CR-PNP-2008-03587) to resolve the issues. Entergy promptly corrected or compensated for these deficiencies, and before the inspectors left the site, Entergy complied with the applicable physical protection and security requirements within the scope of the inspection. In addition, Entergy initiated a condition report (CR-PNP-2008-03588) for the Security Department to evaluate if a potential trend existed in human performance.

The inspectors reviewed Entergy's associated apparent cause evaluation, extent of condition review, and proposed short-term and long-term corrective actions. The inspectors conducted interviews with site personnel and reviewed site-specific procedures, memos, standing orders, and shift turnover notes. In addition, the inspectors reviewed the PNPS security plan and security post orders to ensure that applicable physical protection and security requirements identified in these documents complied with regulatory requirements.

b. Findings and Observations

No findings of significance were identified. Entergy used a "why staircase" methodology in the apparent cause evaluation to determine if a trend or additional corrective actions were needed. The apparent cause evaluation determined that the issues involved individual accountability. The inspectors determined that Entergy performed an adequate review of the issues and implemented the appropriate corrective actions. The corrective actions were aligned with the apparent cause evaluation and included a review of additional work departments. The inspectors concluded that Entergy had taken appropriate action in accordance with station procedures and the corrective action program. The inspectors also determined that the apparent cause evaluation and subsequent corrective action follow-up were appropriate.

4OA3 Event Follow-up (71153 – 2 samples)

.1 Operator Response to Unplanned Inoperability of the Torus

a. Inspection Scope

On January 12, 2009, 2:01 p.m., operators declared the torus inoperable due to the discovery of loose bolts on one of the two torus manway covers. Specifically, fourteen of forty-four bolts were found to be "hand-tight", or less than the specified 45 foot-pounds of torque required, on the east manway cover. After discovery of the degraded manway cover, Entergy staff declared the torus inoperable and entered TS 3.7.A.2.a.3, "Primary Containment Integrity – Blind Flanges and Manways," which requires the plant to be in cold shutdown within 24 hours. Entergy staff performed an extent of condition review subsequent to the discovery which included verifying the other manway cover, the north manway. Three of the forty-four bolts on the north manway cover were found to be less

than the specified 45 foot-pounds of torque required. Entergy proceeded to torque each bolt on both local manway covers to the required 45 foot-pounds of torque, and then conducted an individual leak rate test on both manways to determine the torus leakage. Entergy determined there was no leakage and exited TS 3.7.A.2.a.3 at 10:57pm. In addition, Entergy personnel conducted a past operability evaluation and determined that the torus would have met its design function with the as-found condition of "hand-tight" bolts.

The inspectors reviewed the technical specifications, control room logs, risk profile, and interviewed operations, engineering, and maintenance personnel. The inspectors reviewed the basis for declaring the torus operable by reviewing the subsequent leak rate testing performed after the bolts were tightened. The inspectors also reviewed Entergy's past operability evaluation to determine whether the torus safety function was maintained considering the bolts in an as-found condition of "hand-tight." The documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 (Closed) LER 05000293/2008-004-00, High Pressure Coolant Injection System (HPCI) Inoperable Due to Undervoltage Relay Failure in Valve Power Supply Circuit (1 sample)

a. Inspection Scope

On October 21, 2008, the control room received a motor control center (MCC) D9 trouble alarm. Operators noted that the HPCI injection valve indicator light was extinguished. After further investigation, operators discovered that the 125V DC valve control power circuit for the normally closed HPCI injection valve was deenergized due to an undervoltage relay failure in the 250V DC power feed to the valve motor operator. HPCI was declared inoperable and Technical Specification (TS) 3.5.C was entered at 7:44pm. The TS allowed outage time is 14 days provided that the reactor core isolation cooling system and the low pressure injection system are both operable or be in cold shutdown within 24 hours. Entergy personnel took corrective actions to replace the undervoltage relay and HPCI was returned to service at 4:04am on October 22, 2008. Additional corrective actions by Entergy included performing an undervoltage relay destructive failure analysis and an engineering evaluation on installed DC power motor operated valve undervoltage relays. Entergy's root cause and failure analysis identified that the relay was the correct relay verified by the receipt inspection, the temperature was within its operating parameters, and the relay did not display any unusual external indications. The relay was not discolored and there were no maintenance activities in October that would have had a direct impact on this failure. The analysis further stated the cause to be an isolated premature component failure due to a manufacturing defect, specifically damage to a single coil wire. This was identified in Entergy's corrective action program as CR-PNP-2008-03338. This LER is closed.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with Entergy security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours. These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples and were considered an integral part of the inspectors' normal plant status reviews and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On April 8, 2009, the resident inspectors conducted an exit meeting and presented the preliminary inspection results to Mr. Kevin Bronson, Site Vice President, and other members of the Pilgrim staff. The inspectors confirmed that no proprietary information was retained from this inspection period.

ATTACHMENT: SUPPLEMENTAL INFORMATION

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee personnel:

K. Bronson	Site Vice President
R. Smith	General Manager Pilgrim Operations
S. Bethay	Director, Nuclear Safety Assurance
B. Sullivan	Director, Engineering
D. Noyes	Operations Manager
J. MacDonald	Assistant Operations Manager
J. Lynch	Licensing Manager
S. Wollman	Engineering Supervisor
B. Chenard	Shift Manager

**LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

Opened and Closed

05000293/2009002-01	NCV	Failure to Establish and Maintain Adequate Design Measures to Monitor Critical Parameters of the EDG Air Start System (Section 1R12)
05000293/2009002-02	NCV	Failure to Implement Scaffolding Procedure Requirement (Section 1R15)

Closed

05000293/2008004-00	LER	High Pressure Coolant Injection (HPCI) Inoperable Due to Undervoltage Relay Failure in Valve Power Supply Circuit (Section 4OA3.2)
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## LIST OF DOCUMENTS REVIEWED

### **Section 1R01**

Procedure 8.C.40, Revision 22, Seasonal Weather Surveillance  
Procedure 2.1.37, Revision 25, Coastal Storm Preparations and Actions

### **Section 1R04**

Control Room Logs  
Procedure 2.2.20, Revision 70, Core Spray  
Procedure 2.2.32, Revision 79, Salt Service Water System  
Pilgrim Training Manual, "Sea and Salt Service Water Systems"  
PI&D M212 Sh. 1, Service Water System  
Procedure 5.3.3, Revision 26, Loss of All Service Water  
Procedure 5.3.26, Revision 24, RPV Injection During Emergencies  
Procedure 3.M.1-15, Revision 43, Vibration Monitoring for Preventive Maintenance and Balancing  
CR 2007-04783  
CR 2008-02341  
Procedure 8.5.5.6, Revision 26, RCIC Pump and Valve Operability from Alternate Shutdown Panel  
System Manual Drawings  
Piping and Instrumentation Diagrams M245 & M246, RCIC System  
Procedure 2.2.19, Revision 99, Residual Heat Removal  
Drawing M241, Revision 07, Residual Heat Removal System P&ID  
SDBD-10, Revision 2, PNPS Design Basis Document for the Residual Heat Removal (RHR)  
System  
Procedure 2.2.8, Revision 94, Standby AC Power System (Diesel Generator)  
Procedure 2.1.12.1, Revision 67, Emergency Diesel Generator Surveillance  
Drawing M219, Revision 22, Diesel Generator Air Start System P&ID  
Drawing M259, Revision 10, Diesel Generator Turbo Air Assist System P&ID  
SDBD-61, Revision 1, Emergency Diesel Generator and Auxiliary Systems

### **Section 1R05**

UFSAR 10.8.4.2, Firewater Supply System  
Procedure 2.4.54, Revision 22, Loss of All Fire Suppression Pumps or Loss of Redundancy in the  
Fire Water Supply System  
Procedure 8.B.14, Revision 41, Fire Protection Technical Requirements  
Procedure 8.B.12, Revision 32, Fire Protection System Flow Tests  
Exemption Request #8, No Intervening Combustibles Between Trains  
Exemption Request #9, Fixed Suppression Exemption Where Alternate Shutdown Capability  
Exists  
Procedure 5.5.2, Revision 40, Special Fire Procedure  
Drawing A-319, Reactor & Turbine Building Floor Plan 51'0" & 74'3" Fire Barrier System  
Engineering Evaluation #24, Floor Barrier has Inoperable Dampers  
Procedure 8.B.29, Revision 10, Inspection of Fire Barriers  
Procedure 8.B.17.1, Revision 19, Inspection of Fire Door Assemblies  
Procedure 2.2.29, Revision 26, Smoke and Heat Detection Systems



89XM-1-ER-Q, Revision 7, Updated Fire Hazards Analysis  
CR-PNP-2009-00399  
Procedure EN-DC-161, Revision 3, Control of Combustibles

**Section 1R07**

Procedure 3.M.4-99, Revision 15, TBCCW HX Tube, Channel Cover, Channel Shell, and Partition  
Plate Repair  
Procedure 2.2.31, Revision 48, TBCCW System  
Tube sheet mapping M11-16-2, sheet 2  
CR-PNP-2009-00468  
CR-PNP-2009-00475

**Section 1R11**

LORT/NRC Simulator Exam Scenario SES-177, Loss of Transformer Cooling, LOOP, Small LOCA  
and Loss of "B" Emergency Diesel Generator

**Section 1R12**

Procedure EN-DC-203, Revision 1, Maintenance Rule Program  
Procedure EN-DC-204, Revision 1, Maintenance Rule Scope and Basis  
Procedure EN-DC-205, Revision 1, Maintenance Rule Monitoring  
Procedure EN-DC-206, Revision 1, Maintenance Rule (a)(1) Process  
Procedure 2.2.8, Revision 94, Standby AC Power System (Diesel Generator)  
Procedure 2.1.12.1, Revision 67, Emergency Diesel Generator Surveillance  
Drawing M219, Revision 22, Diesel Generator Air Start System P&ID  
Drawing M259, Revision 10, Diesel Generator Turbo Air Assist System P&ID  
SDBD-61, Revision 1, Emergency Diesel Generator and Auxiliary Systems  
Procedure 2.2.30, Revision 67, Reactor Building Closed Cooling Water (RBCCW) System  
Vendor Manual V-0309, Ingersol Rand Pumps  
Maintenance Rule Basis Document for RBCCW  
System Health Report for RBCCW  
PNPS Maintenance Rule (a)(1) System Status Report  
CR-PNP-2008-03509  
CR-PNP-2009-00022  
CR-PNP-2008-03959  
CR-PNP-2008-03899  
Procedure EN-LI-102, Revision 13, Corrective Action Process  
Procedure EN-DC-203, Revision 1, Maintenance Rule Program

**Section 1R13**

Equipment Out Of Service (EOOS) Quantitative Risk Tool  
120 VAC Y1 & Y2 Training Manual Drawings  
Control Room Logs  
CR-PNP-2009-00015  
CR-PNP-2008-03792

Procedure 8.C.34, Revision 49, Operations Technical Specifications Requirements for Inoperable Systems/Components  
Procedure 8.5.5.6, Revision 26, RCIC Pump and Valve Operability from Alternate Shutdown Panel  
Procedure 1.5.22, Revision 11, Risk Assessment Process  
Procedure EN-DC-151, Revision 1, PSA Maintenance and Update  
PNPS-NE-07-00006, Revision 0, Pilgrim Probabilistic Safety Assessment (PSA) Rev2  
Procedure 3.M.3-47.2, Revision 18, "B" Train Functional Test of Individual Load Shed Components  
NRC Reg. Guide 1.182, Assessing and Managing Risk before Maintenance Activities at Nuclear Power Plants

### **Section 1R15**

Procedure EN-MA-133, Revision 3, Control of Scaffolding  
CR-PNP-2009-00050  
Pilgrim Station Long Term Scaffold Log  
Control Room Logs  
CR-PNP-2009-00051  
CR-PNP-2009-00064  
CR-PNP-2009-00097  
CR-PNP-2009-00234  
CR-PNP-2009-00360  
CR-PNP-2009-00560  
Procedure 1.5.15, Attachment 2, Revision 18, Scaffold Review and Approval Process  
WO 0017859403, Torus Hatch X200B Inspection  
WO 0017859401, Torus  
NEI 94-01, Type B, Leak Rate Testing  
MR 05109160, Remove and Install Torus Manways  
PI&D CIA-58-4, Suppression Chamber Penetration Details  
PI&D M15, Reactor Building Basement EI.-17"  
Procedure EN-OP-104, Revision 3, Operability Determinations

### **Section 1R18**

Tagout Cover Sheet of MO-1001-28A  
WO 51670713, MO-1001-28A Breaker Testing  
CR-PNP-2009-00103  
Procedure 8.Q.3-3, Revision 54, 480V AC Motor Control Center Testing and Maintenance  
Electrical Drawing E8-31-4, Sheet 2, Revision E4, Wiring Diagram & Schematic Combination Full Voltage Reversing Starter  
PI&D E5010, Revision E/2, Schematic Diagram Residual Heat Removal System Motor Operated Valves  
Electrical Drawing E8-19-9, Revision 32, Arrangement Diagram Motor Control Center B20  
EC 0000012705, Reconfigure Alternate Power Feed Leads for MO-1001-28A in MCC Unit 52M-2031  
Procedure EN-DC-115, Revision 5, Engineering Change Development

**Section 1R19**

WO 0017859403, Torus Hatch X200B Inspection  
WO 0017859401, Torus Hatch X200A Inspection  
CR-PNP-2009-00097  
NEI 94-01, Type B, Leak Rate Testing  
MR 05109160, Remove and Install Torus Manways  
PI&D C1A-58-4, Suppression Chamber Penetration Details  
PI&D M15, Reactor Building Basement EI.-17”  
Tagout Cover Sheet of MO-1001-28A  
WO 51670713, MO-1001-28A Breaker Testing  
CR-PNP-2009-00103  
Procedure 8.Q.3-3, Revision 54, 480V AC Motor Control Center Testing and Maintenance  
Electrical Drawing E8-31-4, Sheet 2, Revision E4, Wiring Diagram & Schematic Combination Full  
Voltage Reversing Starter  
PI&D E5010, Revision E/2, Schematic Diagram Residual Heat Removal System Motor Operated  
Valves  
Electrical Drawing E8-19-9, Revision 32, Arrangement Diagram Motor Control Center B20  
Procedure 8.5.5.6, Revision 26, RCIC Pump and Valve Operability from Alternate Shutdown Panel  
Procedure 2.1.19, Revision 17, Suppression Chamber Temperatures  
Procedure 8.9.1, Revision 112, Emergency Diesel Generator and Associated Emergency Bus  
Surveillance  
WO 00181333, EDG ‘A’ Damper Abnormal Position Alarm (VD-206A)  
Procedure 3.M.4-99, Revision 15, TBCCW HX Tube, Channel Cover, Channel Shell, and Partition  
Plate Repair  
CR-PNP-2009-00492  
WO 51568423, Inspection and Tube and Plate Repair for the “A” TBCCW HX  
Procedure 8.5.2.3, Revision 47, LPCI and Containment Cooling Motor-Operated Valves (MOVs)  
Operability Test  
WO 51694642, Lubrication and Maintenance on the LPCI and Containment Cooling MOVs  
CR-PNP-2009-00705  
Procedure 8.5.3.1, Revision 57, Reactor Building Closed Cooling Water System Quarterly and  
Biennial Comprehensive Operability

**Section 1R22**

Procedure 8.M.2-2.10.11.1, Revision 15, Reactor Core Isolation Cooling High Water Level Turbine  
Trip/Auto-Restart Logic Test  
Procedure 2.1.19, Revision 17, Suppression Chamber Temperatures  
Procedure 8.5.5.6, Revision 26, RCIC Pump and Valve Operability from Alternate Shutdown Panel  
CR-PNP-2009-00705  
Daily Risk Notebooks  
Procedure 8.5.3.1, Revision 57, Reactor Building Closed Cooling Water System Quarterly and  
Biennial Comprehensive Operability  
Procedure 2.5.2.71, Revision 31, Radwaste Collection System  
Procedure 2.1.15, Revision 194, Daily Surveillance Log (Leak Rate Data Tables)  
Control Room Logs

Procedure 1.3.34.7, Revision 18, Operations Performance Indicators - Data Sheets for RCS Leakage Data

Procedure 8.9.1, Revision 112, Emergency Diesel Generator and Associated Emergency Bus Surveillance

Procedure 8.5.4.1-1, Revision 22, HPCI Simulated Automatic Actuation, Flow Rate and Cold Quickstart Test

Procedure 8.5.2.2.2, Revision 41, LPCI System Loop B Operability – Pump Quarterly and Biennial (Comprehensive) Flow Rate Tests (IST)

**Section 1EP6**

LORT/NRC Simulator Exam Scenario, SES-177, Revision 0, Loss of Transformer Cooling, LOOP, Small LOCA and Loss of “B” EDG

EP Performance Indicator Reporting and Information Form

ERO Participation Information for Opportunities

**Section 4OA1**

Procedure 1.3.34.7, Revision 18, Operations Performance Indicators – Data Sheets for RCS Leakage Data

Control Room Logs

Procedure 2.1.15, Revision 194, Daily Surveillance Log

**Section 4OA2**

Procedure EN-LI-119, Revision 8, Apparent Cause Evaluation (ACE) Process

Procedure EN-LI-125, Revision 0, NRC Cross-Cutting Analysis and Trending

CR-PNP-2008-03588

CR-PNP-2008-03584

CR-PNP-2008-03586

CR-PNP-2008-03587

**Section 4OA3**

WO 0017859403, Torus Hatch X200B Inspection

WO 0017859401, Torus Hatch X200A Inspection

CR-PNP-2009-00097

NEI 94-01, Type B, Leak Testing

MR 05109160, Remove and Install Torus Manways

PI&D C1A-58-4, Suppression Chamber Penetration Details

PI&D M15, Reactor Building Basement EI.-17”

CR-2008-03337

**LIST OF ACRONYMS**

ADAMS	Agencywide Documents Access and Management System
ALARA	As Low As Reasonably Achievable
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
CS	Core Spray
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EAL	Emergency Action Level
EC	Engineering Change
EDG	Emergency Diesel Generator
EOC	Extent of Condition
HPCI	High Pressure Coolant Injection
IMC	Inspection Manual Chapter
IR	Inspection Report
LER	Licensee Event Report
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PI	Performance Indicator
PMT	Post Maintenance Test
PNPS	Pilgrim Nuclear Power Station
RBCCW	Reactor Building Closed Cooling Water
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RG	Regulatory Guide
SDP	Significance Determination Process
SSC	Structures, Systems, and Components
SSW	Salt Service Water
TBCCW	Turbine Building Closed Cooling Water
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report