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

February 2, 2010

EA-10-003

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 05000293/2009005 AND NOTICE OF VIOLATION

Dear Mr. Bronson:

On December 31, 2009, 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 January 14, 2010, with you and other 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.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy included on the NRC's Web site at www.nrc.gov; select **About NRC, How We Regulate, Enforcement,** then **Enforcement Policy**.

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. During the inspection, the NRC identified a violation involving Entergy's submittal of inaccurate information to the NRC related to the medical qualifications of licensed operators. Letters to the NRC certified that the operators had been medically examined and had met all medical qualifications, when, in fact, one test (namely, a specific olfactory test) had not been performed. An olfactory test is required to ensure that operators can distinguish among various hazardous odors by smell. Although a test was done for operators to detect tracer gases, a test to detect products of combustion was not performed.

Violations involving the provision of inaccurate or incomplete information are of particular concern to the NRC, and may be considered for escalated enforcement under certain circumstances. However, in this case, the NRC has classified this violation at Severity Level IV, after considering that the inaccurate information did not invalidate the NRC licensing since all of the operators subsequently passed an olfactory test when Entergy administered it shortly after the NRC identified the violation. Further, the actual and potential safety significance of this

violation was low in that the olfactory test for combustion products was subsequently conducted and successfully passed by each of the licensed individuals. Nonetheless, this violation demonstrates the importance of taking all of the necessary steps and conducting all of the necessary reviews to assure that information submitted to the NRC is complete and accurate in all material respects.

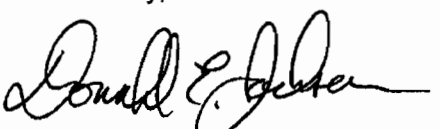
Although this violation has been placed in your corrective action program, a Notice of Violation is being issued and a response is being required to better understand: 1) what actions were taken in 2004 in response to NRC Information Notice (IN) 2004-20, "Recent Issues Associated with NRC Medical Requirements for Licensed Operators," which, in part, reminded facility licensees that licensed operators and the personnel who perform and interpret their medical examinations need to be familiar with the regulatory requirements and guidelines (it should be noted that this IN specifically described an instance in which a facility licensee had not conducted some tests required in the ANSI standard for any of its licensed operators); 2) why action was not taken in response to IN 2004-20 to assure appropriate olfactory testing was being conducted; and 3) the corrective actions taken and planned at this time to assure all information submitted to the NRC is complete and accurate in all material respects.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

Based on the results of this inspection, the NRC has identified one additional issue that was evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that a violation is associated with this issue. This violation is being treated as a non-cited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or significance of the 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: (1) the Regional Administrator, Region I; (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and (3) the Senior Resident Inspector at the PNPS. In addition, if you disagree with the characterization of 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. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

Sincerely,



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

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

Enclosures: Notice of Violation
Inspection Report 05000293/2009005
w/Attachment: Supplemental Information

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

Sincerely,
/RA/

Donald E. Jackson, Chief
Projects Branch 5
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NOTICE OF VIOLATION

Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station

Docket No. 50-293
License No. DPR-35
EA-10-003

During an NRC inspection conducted from October 5 through October 12, 2009, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> 10 CFR 50.9 requires, in part, that information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, Orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.
>
> 10 CFR 55.21 requires, in part, that an applicant for a license shall have a medical examination by a physician, and the licensee shall have a medical examination by a physician every two years. The physician shall determine that the applicant or licensee meets requirements of Section 55.33(a)(1).
>
> 10 CFR 55.33(a)(1) requires, in part, that an applicant's medical condition and general health will not adversely affect the performance of assigned operator job duties or cause operational errors endangering public health and safety.
>
> 10 CFR 55.23 requires, in part, that to certify the medical fitness of the applicant, an authorized representative of the facility licensee shall complete and sign NRC Form 396, "Certification of Medical Examination by Facility Licensee."
>
> NRC Form 396, when signed by an authorized representative of the facility licensee, certifies that a physician conducted a medical examination of the applicant, and that the guidance contained in American National Standards Institute/American Nuclear Society (ANSI/ANS) Standard 3.4-1983, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants," was followed in conducting the examination and making the determination of medical qualification.
>
> ANSI/ANS 3.4-1983, Section 5.4 provides specific minimum capacities required for medical qualifications. Section 5.4.2 requires, in part, the ability to detect odor of products of combustion.

Contrary to the above, from April 29, 1999 to October 13, 2009, Entergy Nuclear Operations, Inc. (Entergy) provided information to the NRC that was not complete and accurate in all material respects. Specifically, Entergy had not completed medical examinations of licensed operators in accordance with ANSI/ANS 3.4-1983. The licensee submitted numerous NRC Form 396s for renewal of Senior Reactor Operator and Reactor Operator licenses, and for initial license applicants that certified that the applicants met the medical requirements of ANSI/ANS 3.4-1983 when, in fact, olfactory (combustion product odor) testing had not been conducted.

This is a Severity Level IV violation (Supplement VII).

Pursuant to the provisions of 10 CFR 2.201, Entergy Nuclear Operations, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, and a copy to the NRC Senior Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-10-003," and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected, and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 2nd day of February 2010.

Enclosure

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-293
License No:	DPR-35
Report No:	05000293/2009005
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Pilgrim Nuclear Power Station (PNPS)
Location:	600 Rocky Hill Road Plymouth, MA 02360
Dates:	October 1, 2009 through December 31, 2009
Inspectors:	M. Schneider, Sr. Resident Inspector, Division of Reactor Projects (DRP) B. Smith, Resident Inspector, DRP S. Rich, Nuclear Safety Professional Development Program Engineer, DRP M. Halter, Reactor Inspector, Division of Reactor Safety (DRS) S. Barr, Sr. Emergency Preparedness Inspector, DRS D. Everhart, Emergency Preparedness Inspector, DRS G. Johnson, Operator Licensing Inspector, DRS D. Molteni, Operations Engineer, DRS
Approved By:	Donald E. Jackson, Chief Projects Branch 5 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000293/2009005; 10/01/2009-12/31/2009; Pilgrim Nuclear Power Station; Licensed Operator Requalification; Surveillance Testing

The report covered a three-month period of inspection by the resident and region based inspectors. One Significance Level IV cited violation (VIO) and 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" (SDP). The cross-cutting aspect for the 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.

Cornerstone: Mitigating Systems

Severity Level IV. A Severity Level IV violation (VIO) of 10 CFR 50.9, "Completeness and Accuracy of Information," was identified due to the submittal of inaccurate medical information for licensed operators. The submittals to the NRC were inaccurate because they certified that the operators had been medically examined and had met all medical qualifications, when in fact, olfactory testing to detect odor of products of combustion had not been performed. The facility has completed corrective actions to develop and administer an appropriate test. All licensed operators passed this new test, and no new license conditions were required.

The licensee's medical physician failed to adequately test all licensed operators (both initial and renewal licensees) in accordance with 10 CFR 55.21 and 55.33 with respect to ANSI/ANS-3.4 1983. The licensee submitted medical information for its licensed operators and applicants that was incomplete and incorrect in its assessment of the medical condition and general health of its licensed operators and initial applicants. The licensee's failure to provide complete and accurate information to the NRC, which could have resulted in an incorrect licensing action, is a performance deficiency because the licensee is expected to comply with 10 CFR 50.9, and because it was within the licensee's ability to foresee and prevent. Because violations of 10 CFR 50.9 are considered to be violations that potentially impede or impact the regulatory process, they are dispositioned using the Traditional Enforcement process. The applicability of cross-cutting aspects related to the performance deficiency of this finding will be determined after NRC review of Entergy's response to the Notice of Violation. (Section 1R11)

- Green. A self-revealing, non-cited violation (NCV) of very low safety significance (Green) of Technical Specification (TS) 5.4.1, "Procedures," was identified for inadequate procedural guidance which resulted in repeated lifting of the "A" Standby Liquid Control (SBLC) system relief valve and the subsequent failure of the "A" SBLC system. Specifically, the SBLC system test procedure did not provide precautions or identify methods to avoid exceeding the pressure set point of the system relief valve during testing. The issue was entered into the corrective action program and the surveillance procedure was revised to add cautions against exceeding 1300 psig and to reduce the

test pressure window upper limit. In addition, if 1350 psig is exceeded, a condition report must be written to evaluate the impact on the system. Corrective actions are also planned to increase the relief valve design set point and to replace the test throttle valve with one more suited to adjusting system pressure.

The performance deficiency was that Entergy did not specify adequate test controls to ensure that SBLC system relief valve set points were not challenged during test performance. This led to repeated relief valve lifts which over time contributed to the degradation of the relief valve that rendered the "A" SBLC train inoperable. The inspectors determined that the finding was more than minor because the finding was associated with the Procedure Quality attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone's objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, one train of SBLC was unavailable for several days. Using Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1-Initial Screening and Characterization of Findings," the inspectors determined that the finding is of very low safety significance because it is not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of a single train for greater than its TS allowed outage time and was not made risk significant because of external events. This finding has a cross-cutting aspect in the Human Performance cross-cutting area, Resources component, because Entergy did not provide complete procedures. Specifically, the procedure did not include precautions and/or techniques to avoid exceeding the relief valve set point during testing. [H.2(c)] (Section 1R22)

REPORT DETAILS

Summary of Plant Status

Pilgrim Nuclear Power Station (PNPS) began the inspection period operating at 100 percent reactor power. On October 21, 2009, operators reduced power to 46 percent for a thermal backwash of the main condenser, and returned to 100 percent reactor power on October 22, 2009, and remained at or near full 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)

Seasonal Susceptibility

a. Inspection Scope (1 sample)

The inspectors reviewed actions taken by Entergy in preparation for the onset of cold weather during the weeks of October 12, 19, and 26, 2009. The inspectors reviewed Procedure 8.C.40, Revision 24, "Seasonal Weather Surveillance," and verified that selected steps had been completed. The inspectors walked down selected areas addressed in the procedure to determine if heat tracing as well as plant heating systems were properly aligned. The inspectors also walked down exterior portions of the Fire Water Storage Tanks and the Demineralized Water Storage Tank heating coil valve lineups. The inspectors also reviewed the alignment of the "B" Emergency Diesel Generator (EDG) fire water main heat tracing, and the Technical Support Center EDG sprinkler system heat tracing. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

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 these procedures, and to identify any discrepancies that may have had an effect on operability. The walkdowns included selected control switch and valve position checks, and verification of electrical power to critical components. Finally, 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:

- K-110 Air Compressor with the K-111 Air Compressor out-of-service;
- "B" Reactor Building Closed Cooling Water (RBCCW) Loop while the "C" RBCCW Pump and the "A" Salt Service Water Pump were out-of-service; and
- Diesel Fire Pump during maintenance on the Electric Fire Pump.

b. Findings

No findings of significance 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, including the outside switchyard area to inspect a compensatory measure. The inspectors reviewed Entergy's fire protection program to determine the specified 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, fire barriers, and any related compensatory measures. 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:

- Startup Transformer Deluge System out-of-service;
- Fire Area 3.1, Fire Zone 3.1, Main Control Room;
- Fire Area 1.10, Fire Zone 3.10B, Air Compressor Rooms;
- Fire Area 5.1, Fire Zone 5.1, "A" Train Salt Service Water Pumps Room; and
- Fire Area 5.2, Fire Zone 5.2, "B" Train Salt Service Water Pumps Room.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope (1 sample)

The inspectors observed licensed operator as-left simulator training on November 12, 2009. The inspectors observed crew response to a loss of coolant

accident complicated by a loss of a vital bus. 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. The inspectors also observed a simulator laboratory demonstration of the effects of various instrument failures. 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 of significance were identified.

.2 Biennial Review – Licensed Operator Requalification Program (71111.11B)

a. Inspection Scope (1 sample)

The following inspection activities were performed using NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," Rev. 9, Supplement 1, Inspection Procedure Attachment 7111111, "Licensed Operator Requalification Program," and 10 CFR Part 55, "Operators' Licenses."

A review was conducted of two years of operating history documentation found in inspection reports, licensee event reports, the licensee's corrective action program, and the most recent NRC plant issues matrix. The inspectors also reviewed specific events from the licensee's corrective action program to evaluate for possible training deficiencies or appropriate training corrective actions. The resident inspectors were also consulted for insights regarding licensed operators' performance.

Observations were made of the dynamic simulator exams and job performance measures (JPMs) administered during the weeks of October 5 and October 12, 2009. These observations included facility evaluations of crew and individual performance during the dynamic simulator exams and individual performance of simulator and in plant JPMs. Four additional weeks of operating examination material administered in 2009 and six weeks of written examinations administered in 2008 were reviewed for compliance with the criteria of the examiner's standards. In addition, written exam grading for the three lowest scoring operators in 2008 was validated.

The remediation plans for one crew failure during the 2009 exam and four individual failures during training sessions were reviewed to assess the effectiveness of the remedial training.

Compliance with operator license conditions was evaluated by reviewing six operator medical records and two years of proficiency records for six individuals. In addition, reactivation records completed in the last two years were reviewed.

Simulator performance and fidelity were reviewed for conformance to the reference plant control room. Selected simulator deficiency reports were reviewed to assess licensee

prioritization and timeliness of resolution. Simulator testing records were reviewed to verify that scheduled tests were performed and deficiencies addressed. Simulator fidelity was observed during simulator scenarios and JPMs. In addition, one plant design change (PDC-98-02) that replaced RHR panel instrumentation was verified to be incorporated into the simulator.

A review was conducted of licensee requalification exam results for the current testing cycle. The inspection assessed whether pass rates were consistent with the guidance of the examination standards and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process."

Upon completion of all scheduled examination activities, the inspector reviewed examination results and verified that:

- Crew pass rate was greater than or equal to 80% (Pass rate was 87.5%);
- Individual pass rate on the dynamic simulator test was greater than 80% (Individual pass rate was 98.1%.);
- Individual pass rate on the walkthrough (JPMs) was greater than 80% (Pass rate was 99.2%);
- Individual pass rate on the comprehensive written exam was greater than 80% (No written examination was administered at Pilgrim this year); and
- More than 80% of the individuals passed all portions of the exam (87.5% of the individuals passed all portions of the exam).

b. Findings

.1 Introduction: A Severity Level IV violation (VIO) of 10 CFR 50.9, "Completeness and Accuracy of Information," was identified due to the submittal of inaccurate medical information for licensed operators. The submittals to the NRC were inaccurate because they certified that the operators had been medically examined and had met all medical qualifications, when in fact, olfactory testing to detect odor of products of combustion had not been performed.

Description: The NRC's requirements related to the conduct and documentation of medical examinations for operators are contained in Subpart C, "Medical Requirements," of 10 CFR Part 55, Operators' Licenses. Specifically, Section 55.21, "Medical Examination," requires every operator to be examined by a physician when he or she first applies for a license, and every two years once receiving their license. The physician must determine whether the operator meets the requirements of Section 55.33(a)(1), i.e., the operator's medical condition and general health will not adversely affect the performance of assigned operator duties or cause operational errors that endanger public health and safety.

On November 24, 2004, the NRC issued Information Notice (IN) 2004-20, "Recent Issues Associated with NRC Medical Requirements for Licensed Operators." The IN communicated that due to recent examples, facility medical requirements may not be receiving sufficient management oversight to ensure that the fitness of licensed operators is being maintained at the required level. The IN also stated that the facility licensee must certify which industry standard (i.e., which specific version of ANSI/ANS-

3.4, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants," or other NRC-approved method) was used in making the fitness determination. For this inspection, the 1983 industry standard was required for completion of the medical examination. ANSI-3.4 1983, Paragraph 5.4.2 "Nose," requires licensed operators to have the "ability to detect odor of products of combustion and of tracer or market gasses."

During the medical records review, the inspectors determined that the olfactory testing performed by the facility licensee did not meet the ANSI/ANS-3.4 1983 testing requirements. The facility had exclusively tested for tracer gases (natural gas) with the use of a "scratch and sniff" test but had not performed a specific test for products of combustion. The inspectors noted that a checklist used by medical personnel specified "Ability to detect odor of products of combustion and/or tracer or market gasses."

The failure to perform olfactory testing for products of combustion has the potential to be significant since, during a fire, the operators are required to perform actions to mitigate the effects of a postulated fire. The inability to detect the onset of fire by smelling products of combustion could result in the fire becoming more destructive. It should be noted that most areas of the plant (including control room panels) are equipped with smoke detectors. In this case, all of the operators subsequently passed an olfactory test for products of combustion when Entergy administered it shortly after the NRC identified the violation.

Analysis: The inspectors determined that a long-standing deficiency had existed at the Pilgrim Nuclear Power Station, in that the licensee's medical physician was not adequately testing all licensed operators (both initial and renewal licensees) in accordance with 10 CFR 55.21 and 55.33 with respect to ANSI/ANS-3.4 1983. 10 CFR 55.23 requires that an authorized representative of the facility licensee shall certify the medical fitness of an applicant by completing and signing an NRC Form 396. NRC Form 396, when signed by an authorized representative of the facility licensee, certifies that a physician conducted a medical examination of the applicant as required in 10 CFR 55.21, and that the guidance contained in ANSI/ANS-3.4 1983 was followed in conducting the examination and making the determination of medical qualification.

The licensee's failure to provide complete and accurate information to the NRC, which could have resulted in an incorrect licensing action, is a performance deficiency because the licensee is expected to comply with 10 CFR 50.9, and because it was within the licensee's ability to foresee and prevent. Because violations of 10 CFR 50.9 are considered to be violations that potentially impede or impact the regulatory process, they are dispositioned using the Traditional Enforcement process. The finding is more than minor because information was provided to the NRC signed under oath by the company medical doctor and the Site Vice President, which documented that each operator was given a complete examination. There was no evidence that the operators endangered plant operations as a result of inadequate olfactory exams while performing licensed duties. The applicability of cross-cutting aspects related to the performance deficiency of this finding will be determined after NRC review of Entergy's response to the Notice of Violation.

Enforcement: 10 CFR 50.9 states, in part, "Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects." Contrary to the above, from April 29, 1999 to October 13, 2009, the licensee submitted inaccurate information to the NRC on NRC Form 396 regarding the medical certification and testing of its licensed operators and initial applicants. This information was material to the NRC because the NRC relied on this certification to determine whether the applicant met the requirements to operate the controls of a nuclear power plant pursuant to 10 CFR Part 55.

The licensee implemented immediate corrective action and satisfactorily performed the required test. The inspectors verified the adequacy and promptness of the licensee's corrective actions for the medical issue. These corrective actions included the development of a smell discrimination test that included products of combustion and tracer gases including natural gas, lemon and lilac. The new tests were administered to all licensed operators and senior licensed operators. All operators passed the test and no new deficiencies were identified. This issue has been entered into the facility corrective action program and is of low safety significance. This violation is being treated consistent with other licensed operator medical examination findings and the NRC Enforcement Policy. **NOV 05000293/2009005-01, Incomplete Licensed Operator Medical Examinations.**

.2 Introduction: The inspectors identified an Unresolved Item (URI) involving 10 CFR 50.59, "Changes, Tests and Experiments," due to a failure to properly implement a procedure change which may have resulted in a "more than minimal increase in the likelihood of occurrence of a malfunction of a structure, system or component (SSC) important to safety... ." Pilgrim incorrectly allowed an existing 50.59 evaluation to support a High Pressure Coolant Injection (HPCI) procedure change that allowed actions that were beyond the scope of the existing 50.59 evaluation.

Description: In February 2000, Pilgrim revised procedure 2.2.21.5, "HPCI Injection and Pressure Control," to provide procedural direction when shutting down the HPCI system. One of the changes that were made in this revision was the addition of a new section, Section 8, "Preventing HPCI Injection," to the procedure. These changes were evaluated using NOP83E5, "10 CFR 50.59 Process," to evaluate whether this change was allowed per 10 CFR 50.59 regulations. Pilgrim concluded that the change to the facility could be made without a safety evaluation or license amendment.

During the performance of a simulator exam scenario, the examiners observed the HPCI system being defeated as drywell pressure approached the automatic initiation setpoint for the HPCI system (2.2 pounds per square inch gage (psig)). The system was defeated by a Reactor Operator placing the HPCI oil pump in Pull-to-Lock (PTL). This action prevents HPCI from starting in response to Emergency Safeguards Feature (ESF) automatic initiation signals. The order to defeat HPCI was made before the automatic initiation setpoint was reached, which is also the required entry into the Emergency Operating Procedures (EOPs). The examiners requested the procedural guidance that directed this action, since the Emergency Operating Procedures (EOPs) had not yet been entered when HPCI was defeated. The examiners reviewed the revised procedure

as well as the procedure change paperwork and 50.59 preliminary evaluation checklist developed to support the revised procedure.

The examiners concluded that the 50.59 preliminary evaluation checklist developed to support the revision to procedure 2.2.21.5 was incorrect and did not support the procedure revision. The basis for the procedure change was:

> "to provide enhanced instructions for the operation of the HPCI System under various emergency operating modes. Several of these operations, such as pressure control and placing HPCI to 'inhibit' are required to be performed during the execution of various EOPs. These evolutions are analyzed in Emergency Procedure Guidelines (EPGs) Rev. 4 and have been approved by the NRC per SER # 1.88.196."

Since the procedure change can be used outside the EOPs, the EPGs and SER No. 1.88.196 do not fully support the conditions under which the HPCI system may be secured. Therefore, the 50.59 preliminary evaluation checklist was incorrect, and a separate safety evaluation was required to allow the HPCI system to be secured outside the EOPs. This issue remains unresolved until the facility completes their development of a new safety evaluation to determine whether prior NRC's approval would have been required before implementing the described procedure change. **URI 05000293/2009005-02, Procedure change to allow disabling HPCI during transients.**

1R12 Maintenance Effectiveness (71111.12Q)

a. 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:

- Drywell Particulate and Gaseous Radiation Monitors (C19A and B); and
- Emergency Diesel Generators.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope (3 samples)

The inspectors evaluated three 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:

- Planned yellow risk with Reactor Core Isolation Cooling (RCIC) out-of-service;
- Emergent yellow risk with "B" EDG out-of-service; and
- Planned yellow risk during HPCI system testing.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (4 samples)

The inspectors reviewed four 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-2009-4205, Spurious Closure Potential of RCIC/HPCI Suction Valves;
- CR-PNP-2009-4430, Cooling Supply Ducts mesh size too small for the East and West Salt Service Water Rooms;
- CR-PNP-2009-4500, "B" EDG Emergency Shutdown Due to Crankcase Exhaust Overpressure; and
- Multiple Condition Reports documenting Control Rod High Temperature Conditions.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Modification to Disable the "B" EDG High Crankcase Pressure Trip

a. Inspection Scope (1 sample)

The inspectors reviewed Temporary Modification 18362, "Provide Temporary Modification to Disable Shutdown of "B" EDG on High Crankcase Vacuum Pressure During Surveillance Testing Conditions," to determine whether the performance capability of the "B" EDG had been degraded through the modification. The inspectors reviewed Control Room drawings, relevant condition reports, and procedures to ensure the temporary modification did not adversely affect the "B" EDG. The inspectors reviewed the updated Control Room drawings to determine whether they properly reflected the temporary modification. The inspectors also performed a walkdown of temporary equipment installed in the plant to ensure the temporary equipment was installed in accordance with the temporary modification requirements. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Temporary Modification to Disable the Low Flow Alarm for Drywell Cooler VAC-205B1

a. Inspection Scope (1 sample)

The inspectors reviewed Temporary Modification EC15094, "Lift Lead on Relay FS/E-81X in Panel C61 to Clear Trouble Alarm for Drywell Cooling Unit Fan VAC-205B1," to determine whether the performance capability of drywell cooling had been degraded through the modification. The inspectors reviewed Control Room drawings, relevant condition reports, and alarm response procedures to ensure the temporary modification did not adversely affect indications of drywell cooling. The inspectors reviewed the updated Control Room drawings and alarm response procedures to determine whether they properly reflected the temporary modification. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.3 Permanent Modification for Seismic Monitoring Instrumentation

a. Inspection Scope (1 sample)

The inspectors reviewed Permanent Modification EC 8071, Revision 0, "Replace Seismic Monitoring Equipment with Fleet-Wide Approach," and the associated 10 CFR 50.59 screening, to determine whether the licensing basis and performance capability of the seismic monitoring system had been degraded through the modification. The inspectors reviewed applicable design documents and drawings to determine whether they properly reflected the permanent modification. The inspectors also reviewed Operations contingency plans for evaluating earthquakes and emergency action level classifications while the seismic monitoring equipment is removed from service. The documents

reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope (6 samples)

The inspectors reviewed six samples of post-maintenance tests (PMT) during this inspection period. The inspectors reviewed these activities to determine whether the PMT 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:

- Diesel Air Compressor K-117 Maintenance;
- Reactor Core Isolation Cooling Rupture Disk Replacement and Overspeed Test;
- "B" Emergency Diesel Generator 12 and 16 Year Preventative Maintenance Post-work Tests;
- Load Shed Post Maintenance Test on the "A" Recirculation Motor Generator Set Oil Pump "B";
- Overhaul of the "A" Salt Service Water Pump; and
- Replacement of Reed Switches for Post Accident Sampling System and H_2/O_2 Analyzer Valve SV-5065-27B.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope (4 samples)

The inspectors witnessed four 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:

- "A" Residual Heat Removal Containment Isolation Valve (CIV) Testing;
- Standby Liquid Control Pump Operability (IST);
- "A" Emergency Diesel Generator Initiation by Core Spray Logic (Routine); and
- "C" Salt Service Water Pump Quarterly Testing (IST).

b. Findings

No findings of significance were identified.

.2 Failure of the "A" Standby Liquid Control Train, URI 05000293/2009004-03 (Closed)

a. Inspection Scope

On July 10, 2009, the "A" Standby Liquid Control (SBLC) train failed during the quarterly surveillance test. The inspectors opened an Unresolved Item (URI) in Pilgrim Integrated Inspection Report 2009004 pending Entergy's review of the apparent causes. The inspectors reviewed additional information documented in the condition report and discussed it with plant staff in order to determine whether or not a performance deficiency existed.

b. Findings

Introduction: A self-revealing, non-cited violation (NCV) of very low safety significance (Green) of Technical Specification (TS) 5.4.1, "Procedures," was identified for inadequate procedural guidance which resulted in repeated lifting of the "A" Standby Liquid Control (SBLC) system relief valve and the subsequent failure of the "A" SBLC system. Specifically, the SBLC system test procedure did not provide precautions or identify methods to avoid exceeding the pressure set point of the system relief valve during testing.

Description: On July 10, 2009, during the quarterly surveillance on the "A" SBLC train, the system relief valve, PSV-1105A, lifted and did not reseat, which diverted flow such that the system could not meet its TS acceptance criteria. During the performance of the surveillance, operators adjust the test throttle valve while the pump is running to achieve a test pressure between 1275 and 1300 psig. Entergy determined that the test throttle valve is not well-suited for throttling at those pressures. In addition, the targeted pressure band is close to the relief set point of the valve, the positive displacement pump design causes pressure perturbations in the system during throttle valve manipulation, and the operators have a very limited amount of time to achieve the test pressure due to a small test tank volume. The system test procedure does not provide precautions or other methods to limit the aggregate impact of these system limitations. As a result, the pressure set point of the relief valve has historically been exceeded. The relief valve is not designed to lift during normal system operation and Entergy concluded that repeated lifting during testing contributed to wear on the valve and its subsequent failure. The train was declared inoperable, the relief valve was replaced, and the system was restored to service on July 12, 2009.

This issue has been entered into Pilgrim's corrective action program and the surveillance procedure has been revised to add a requirement for operators to write a condition report if SBLC system pressure exceeds 1350 psig during performance of the test. In addition, the test pressure window has been narrowed to 1275-1290 psig, and a caution has been added to the procedure to avoid exceeding 1300 psig while operating the test throttle valve. Long term corrective actions include increasing the design set point of the relief valve and replacing the test throttle valve with one more suited to adjusting system pressure.

Analysis: The performance deficiency was that Entergy did not specify adequate test controls in their test procedure to ensure that SBLC system relief valve set points were not challenged during test performance. This issue was within Entergy's ability to foresee and correct and should have been prevented. This led to repeated relief valve lifts which over time contributed to the degradation of the relief valve that rendered the "A" train inoperable. 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. The inspectors determined that the finding was more than minor because the finding was associated with the Procedure Quality attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone's objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, one train of SBLC was unavailable for several days.

A review of NRC Inspection Manual Chapter (IMC) 0612, Appendix E, "Minor Examples," revealed that no minor examples were applicable to this finding. The inspectors determined the significance of the finding using IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The finding was determined to be of very low safety significance (Green) because the finding did not involve a design or qualification deficiency resulting in loss of operability or functionality, did not result in a loss of system safety function, and did not screen as potentially risk significant due to external initiating events.

This finding has a cross-cutting aspect in the Human Performance cross-cutting area, Resources component, because Entergy did not provide complete procedures. Specifically, the procedure did not include precautions and/or techniques to avoid exceeding the relief valve set point during testing. [H.2(c)]

Enforcement: TS 5.4.1.a, "Procedures," requires that written procedures be maintained as recommended in NRC Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978. RG 1.33, Appendix A, Section 8b includes procedures for surveillance tests for the "Liquid Poison System." Contrary to the above, Procedure 8.4.1, Revision 68, "Standby Liquid Control Pump Quarterly and Biennial Capacity and Flow Rate Test," was not appropriately maintained in that it did not include adequate precautions or methods to avoid exceeding the system relief valve lift pressure set point when throttling to achieve test pressure. This led to repeated relief valve lifts which contributed to the degradation of the relief valve that eventually rendered the "A" SBLC train inoperable. Corrective actions include revising the surveillance procedure to add cautions against exceeding 1300 psig and to reduce the test pressure window upper limit. In addition, if 1350 psig is

exceeded, a condition report must be written. Entergy has also planned corrective actions to increase the relief valve design set point and to replace the test throttle valve with one more suited to adjusting system pressure. Because this finding is of very low safety significance and Entergy has entered it into their corrective action program (CR-PNP-2009-3088), this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy. **NCV 05000293/2009005-03, Inadequate Surveillance Procedure Resulting in Failed Standby Liquid Control Train**

Cornerstone: Emergency Preparedness (EP)

1EP2 Alert and Notification System (ANS) Evaluation (71114.02)

a. Inspection Scope (1 sample)

An onsite review was performed to assess the maintenance and testing of the Pilgrim Nuclear Power Station ANS. During this inspection, the inspectors interviewed EP staff responsible for implementation of the ANS testing and maintenance and reviewed condition reports (CRs) pertaining to the ANS for causes, trends, and corrective actions. The inspectors reviewed the ANS procedures and the ANS design report to ensure Entergy's compliance with design report commitments for system maintenance and testing. The inspection was performed in accordance with NRC Inspection Procedure 71114.02. Planning Standard 10 CFR 50.47(b)(5) and the related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

a. Inspection Scope (1 sample)

The inspectors performed a review of Pilgrim's ERO augmentation staffing requirements and the process for notifying and augmenting the ERO. This was performed to ensure the readiness of key Entergy staff to respond to an emergency event, and to ensure Entergy's ability to activate their emergency facilities in a timely manner. The inspectors reviewed the Pilgrim ERO roster, training records, applicable procedures, drill reports for augmentation, quarterly EP drill reports, and CRs related to the ERO staffing augmentation system. The inspection was performed in accordance with NRC Inspection Procedure 71114.03. Planning Standard 10 CFR 50.47(b)(2) and related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04)

a. Inspection Scope (1 sample)

Since the last NRC inspection of this program area in April 2008, Entergy had implemented various revisions of the different sections of the Pilgrim Nuclear Power Station Emergency Plan. Entergy had determined that, in accordance with 10 CFR 50.54(q), any change made to the Plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors reviewed all EAL changes that had been made since April 2008, and performed a sampling review of other Emergency Plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety. The inspection was performed in accordance with NRC Inspection Procedure 71114.04. The requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses (71114.05)

a. Inspection Scope (1 sample)

The inspectors reviewed a sampling of self-assessment procedures and reports to assess Entergy's ability to evaluate their EP performance and programs. The inspectors reviewed a sampling of CRs from January 2008 through October 2009, initiated by Entergy at Pilgrim from drills, self-assessments and audits. The Entergy emergency planning response to the actual declaration of an Unusual Event on October 29, 2008, was also reviewed. Additionally, the inspectors reviewed Quality Assurance audits, including 10 CFR50.54(t) audits, and several self-assessment reports. This inspection was in accordance with NRC Inspection Procedure 71114.05. Planning Standard 10 CFR 50.47(b)(14) and the related requirements of 10 CFR 50, Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

4OA1 Performance Indicator (PI) Verification (71151)

.1 Cornerstone: Mitigating Systems

a. Inspection Scope (2 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, Condition Reports (CRs), System Health Reports, 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:

- Cooling Water (Salt Service Water/Reactor Building Closed Cooling Water) from the fourth quarter 2008, through the third quarter of 2009 (MS10); and
- Emergency AC Power System from the fourth quarter 2008, through the third quarter of 2009 (MS06).

b. Findings

No findings of significance were identified.

.2 Cornerstone: Emergency Preparedness (EP)

a. Inspection Scope (3 samples)

The inspectors reviewed data for the Pilgrim EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Pilgrim was performed in the second quarter of 2008, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the second calendar quarter of 2008 through the third quarter of 2009, to verify the accuracy of the reported PI data. The review of these PIs was performed in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, Revision 6, "Regulatory Assessment Performance Indicator Guidelines." Additionally, the inspectors performed NRC Temporary Instruction (TI) 2515/175, ensured the completeness of Entergy's completed Attachment 1 from the TI, and forwarded that data to NRC Headquarters.

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

The inspectors performed a screening of each item entered into Entergy's CAP. 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 of significance were identified.

.2 Semi-Annual Review to Identify Trends:

a. Inspection Scope (1 sample)

The inspectors performed a review of Entergy's Corrective Action Program (CAP) and associated documents to identify trends that could indicate the existence of a more significant safety issue. The review was focused on repetitive equipment and corrective maintenance issues, but also considered the results of daily inspector CAP item screening. The review included issues documented in CAP trend reports and the site CAP performance indicator data. The review focused on the six month period of July 2009, through December 2009, although the inspectors also evaluated previous trend results for CRs from December 2008, through June 2009, which were discussed in Pilgrim Integrated Inspection Report 2009003. The documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified. Two low level trends discussed in Pilgrim Integrated Inspection Report 2009003 were reviewed and are discussed below. No additional low level trends were identified by the inspectors during this time period.

Post Maintenance Modification Testing

The inspectors reviewed CR-PNP-2009-2778, which was written to perform an assessment of post maintenance test activities documented at Pilgrim during and since Pilgrim's refueling outage (RFO17). The inspectors performed additional post-maintenance test inspection samples and continued to monitor post-maintenance test issues during the last two quarters of 2009. During the past two quarters the inspectors continued to identify deficiencies in post maintenance testing. Examples included 1) review of a work package by the inspectors determined that acceptance criteria for a control rod drive pump had not been met; and 2) inspector review of a Station Blackout EDG post-maintenance test identified a value for the air cleaner differential pressure which was outside of its specified range with no condition report or other assessment of acceptability documented in the work package. Due to the identification of continued deficiencies and because corrective actions to improve post maintenance testing at Pilgrim have not been in effect long enough to conclude whether they have been effective, the inspectors will continue to monitor this trend during the next two quarters.

Temporary Modification Controls

The inspectors reviewed CR-PNP-2009-3064, which was written to perform an assessment of temporary modification issues documented at Pilgrim since January 2008. The inspectors also performed additional temporary modification inspection samples. The inspectors determined that Entergy has performed an in-depth review of temporary

modification program administration issues. This review identified a significant number of procedures which were revised to include specific requirements for the documentation of activities associated with temporary modifications. Entergy also conducted training for shift managers in their responsibilities during the implementation of the temporary modification process. In addition, Entergy has implemented process changes for the replacement of control room drawings and alarm response procedures to preclude the inadvertent removal of temporary modification tags. The inspectors have determined that the above actions should be effective in improving the administration of the temporary modification program and consider this low level trend closed.

.3 Annual Sample: Failure of Secondary Containment Damper

a. Inspection Scope (1 sample)

This inspection focused on Entergy's identification, evaluation, and resolution of deficiencies associated with the failure of a secondary containment damper as documented in Licensee Event Report (LER) 2008-001, CR-PNP-2008-0140 and CR-PNP-2008-0143. Specifically, on January 10, 2008, a secondary containment damper, AO-N-78, did not go full closed during online cycling performed as part of damper preventative maintenance. On January 14, 2008, during the work order review process, it was noted that the damper had not met the acceptance criteria of the maintenance procedure, and thus should have been immediately closed to maintain secondary containment integrity. Subsequent to this discovery, secondary containment was declared inoperable, and the associated Limiting Condition for Operation (LCO) action statement was entered. The associated in-line damper, AO-N-79, was closed, the maintenance procedure was re-performed on AO-N-78, and all acceptance criteria were met. Damper AO-N-78 was then determined to be operable and the LCO for Secondary Containment operability was exited.

The inspectors reviewed Entergy's associated apparent cause analysis, extent-of-condition review, identification of compensatory actions, and the short and long-term corrective actions associated with the damper failure to determine if Entergy had corrective actions in place commensurate with the safety significance of the issue. The inspectors reviewed condition reports written for previous secondary containment damper failures, historical work orders, leak rate test trending, and the applicable maintenance rule basis document to evaluate past performance of the dampers and to determine if Entergy had properly identified and corrected conditions adverse to quality. The inspectors interviewed the system engineer and licensed operators, and reviewed plant procedures, related industry operating experience, and preventative maintenance schedules to verify Entergy's ability to adequately monitor damper performance in order to identify damper degradation and assess the adequacy of their maintenance program as it pertains to maintaining the operability of safety related structures, systems and components (SSCs). The documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified. While reviewing condition reports written for secondary containment damper failures prior to 2008, the inspectors determined that

Entergy's use of a category level D (Administrative Closure) CR was not in accordance with the site-assigned categorization levels as described in Attachment 9.1 of procedure EN-LI-102, "Corrective Action Process." Specifically, the inspectors identified that CR-PNP-2007-1172, pertaining to three secondary containment damper failures (AO-N-78, AO-N-79, and AO-N-80) in April 2007, documented a condition adverse to quality related to TS-related equipment without sufficient CR supporting documentation that would allow Entergy personnel to support a level D categorization in accordance with EN-LI-102. The inspectors' review determined that a level C (Non-significant – Correction Only) categorization would typically ensure higher management visibility, more timely corrective actions, and more thorough documentation of corrective actions, including final closure documentation to ensure damper operability and TS implications were fully addressed. Specifically, the corrective action to re-inspect and cycle the secondary containment dampers as a follow-up to CR-PNP-2007-1172 was not completed until January 10, 2008, at which time damper AO-N-78 again did not fully close. The failure of AO-N-78 to fully close was not reported to Operations until January 14, 2008, at which time secondary containment was declared inoperable. CR-PNP-2008-0143 documented an apparent cause for the delay in notifying Operations of the problem with the AO-N-78 damper not going completely closed. The documented apparent cause included unclear damper seal inspection acceptance criteria and a mindset that since the damper was previously found not able to fully close but was still considered operable in 2007, the present condition in 2008 was also acceptable. Entergy has taken additional corrective action to address these issues.

The inspectors also noted that Entergy's maintenance rule program does not provide clear documented guidance for determining maintenance rule functional failures for secondary containment dampers. Additionally, the maintenance rule bases document applicable to secondary containment covers all heating, ventilation, and air conditioning (HVAC) systems and includes 14 maintenance rule functions, only some of which are safety-related. The inspectors determined that the vague nature of the maintenance rule program, as it pertains to secondary containment, makes it difficult for Entergy to monitor the performance and condition of the dampers in a manner sufficient to provide reasonable assurance that these SSCs are capable of fulfilling their intended functions. This issue was captured in Entergy's corrective action program as part of CR-PNP-2009-4197.

.4 Annual Sample: Foreign Material Exclusion (FME) Events during RFO 17

a. Inspection Scope (1 sample)

This inspection focused on Entergy's identification, evaluation, and resolution of deficiencies associated with foreign material exclusion events that occurred during the 2009 Refueling Outage, as documented in CR-PNP-2009-1467, CR-PNP-2009-1503, CR-PNP-2009-1614, CR-PNP-2009-1767, CR-PNP-2009-1778, CR-PNP-2009-1812, CR-PNP-2009-1850, and CR-PNP-2009-2002.

The inspectors reviewed Entergy's associated apparent cause analysis, extent-of-condition review, identification of compensatory actions, and the short-term and long-term corrective actions associated with the FME events to determine if Entergy had corrective actions in place commensurate with the safety significance of the issues. The

inspectors reviewed site and corporate procedures and interviewed the site FME Coordinator and Outage Manager to assess timeliness of Entergy's assimilation of outage lessons learned specific to the FME program. The inspectors also utilized these interviews, along with a review of a vendor report that tracked FME issues during the outage, to assess Entergy's coordination of long-term and short-term corrective actions with vendors and contractors involved in a large number of the FME events that occurred during the outage. The inspectors reviewed operability determinations and engineering evaluations performed following the FME events to verify that, in developing corrective actions for each event, Entergy adequately evaluated potential impacts of the FME on core and safety related equipment performance. The documents reviewed in the inspection are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified. The inspectors determined that Entergy's corrective actions were reasonable with respect to the FME events that occurred during RFO 17. The CR packages varied in composition based on specific FME issues, but in general included an initial apparent cause evaluation, extent-of-condition reviews, completed corrective actions, planned corrective actions, and compensatory actions. The inspectors concluded that the elements of the CR packages were detailed and thorough and the proposed corrective actions were adequate to address deficiencies identified. The inspectors concluded that the long-term corrective actions in place to evaluate the RFO 17 FME events in the aggregate, while incorporating the RFO 17 lessons learned into their FME program, were adequate. Additionally, the inspectors determined that Entergy's coordination of corrective actions with vendors and contractors involved in the subject FME events was adequate.

4OA3 Event Follow-up (71153)

.1 Operator Performance During Thermal Backwash

a. Inspection Scope (1 sample)

The inspectors observed an infrequently performed evolution on October 21, 2009. Specifically, the inspectors observed a planned plant downpower to support thermal backwash of the condenser. The inspectors observed the operators reduce power from 100 percent to 46 percent by lowering recirculation flow and inserting control rods. The inspectors reviewed procedural guidance and the power maneuver plan, and observed control room conduct and control of the evolutions. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Operator Response to Unplanned Loss of the 23KV Offsite Power Line

a. Inspection Scope (1 sample)

On November 9, 2009, a tree limb fell onto and de-energized an offsite power supply line which provides power to the shutdown transformer. The loss of this line affected offsite power supplies for the Technical Support Center, security loads, and auxiliary loads for the Station Blackout Emergency Diesel Generator. Operators entered Procedure 2.4.A.23, "Loss/Degradation of 23KV Line," and verified that all onsite power supplies to the above loads had energized. Power to the 23KV line was subsequently restored approximately 20 minutes later. The inspectors responded to the Control Room, reviewed applicable procedures and Technical Specifications, and reviewed operator response. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.3 Secondary Containment Declared Inoperable

a. Inspection Scope (1 sample)

On December 22, 2009, Entergy declared Secondary Containment inoperable upon discovering that one of two troughs in the torus room area was void of water. While full of water, the Torus room troughs act as a seal for secondary containment. Entergy exceeded their limit of acceptable gapping for secondary containment to maintain a negative pressure. Technical Specification, 3.7.C, which is a 4 hour shutdown action statement, was entered and then exited an hour later when the trough was refilled with water. Entergy also issued an 8 hour event report per 10 CFR 50.72.B.3.V for loss of safety function of secondary containment. The inspectors responded to the Control Room, reviewed control room logs and Technical Specifications, and observed operator response. The documents reviewed during this inspection are listed in the Attachment.

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

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On October 2, 2009, the inspector conducted a Problem Identification and Resolution (PI&R) exit meeting attended by Mr. Robert Smith, Plant General Manager, and other members of the Pilgrim staff. The inspector verified prior to the exit meeting that no proprietary information was provided during the inspection.

On October 16, 2009, the Licensed Operator Requalification inspectors presented the inspection results to members of licensee management at the conclusion of the onsite inspection. Full requalification examination results were reviewed in a telephone call between the lead inspector and Mr. Steve Reininghaus, Superintendent of Operations Training, on October 13, 2009.

On November 9, 2009, the inspectors conducted an emergency preparedness exit meeting via teleconference and presented the preliminary inspection results to Mr. Steve Bethay, Site Director of Nuclear Safety Assurance, and other members of the Entergy staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

On January 13, 2010, the Licensed Operator Requalification inspector presented the results of the inspection and Notice of Violation to Mr. Kevin Bronson, Site Vice President.

On January 14, 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	Safety Assessment Director
K. Bronson	Site Vice President
W. Corbo	Maintenance I&C Superintendent
M. Gatslick	Licensing Engineer
J. Lynch	Licensing Manager
J. Macdonald	Assistant Operations Manager
F. Mulcahy	Sr. Engineer
D. Noyes	Operations Manager
R. Smith	General Manager Pilgrim Operations
B. Sullivan	Engineering Director
J. Taormina	Maintenance Manager
V. Fallacara	Site Training Manager
S. Reininghaus	Training Superintendent
M. Gadslik	Compliance Supervisor

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

NOV 05000293/2009005-01 Incomplete licensed operator medical examinations. (Section 1R11)

Opened and Closed

URI 05000293/2009005-02 Procedure change to allow disabling HPCI during transients. (Section 1R11)

NCV 05000293/2009005-03 Inadequate Surveillance Procedure Resulting in Failed Standby Liquid Control Train (Section 1R22)

Closed

URI 05000293/2009004-03 Failure of the "A" Standby Liquid Control Train (Section 1R22)

LIST OF DOCUMENTS REVIEWED

Section 1R01

Procedure 8.C.40, Revision 24, Seasonal Weather Surveillance
CR-PNP-2009-04542, Various valve label IDs degraded or missing in FWST/CST valve pits

Section 1R04

Procedure 2.2.36, Revision 65, Instrument Air Systems
Training Manual, Instrument Air Systems
Equipment Out-of-service (EOOS) Tool
Procedure 2.2.30, Revision 69, Reactor Building Closed Cooling Water
Procedure 8.B.1, Revision 86, Fire Pump Test

Procedure 2.2.25, Fire Water Supply System

Section 1R05
Procedure 8.B.14, Revision 43, Fire Protection Technical Requirements
UFSAR 10.8, Fire Protection System
NRC Information Notice IN 97-48, Inadequate or Inappropriate Interim Fire Protection Compensatory Measures
Hourly Fire Watch Log 09-152
CR-PNP-2009-04365, Startup Transformer Fire Header Out-of-service
Fire Hazards Analysis
Procedure 5.5.2, Revision 44, Special Fire Procedure
Procedure 8.B.17.2, Revision 9, Inspection of Fire Damper Assemblies
Fire Protection Engineering Evaluation (FPEE) -11, Revision 1, Unfilled Block Walls Intake Structure
FPEE-17, Revision 2, Exterior Walls
FPEE-120, Revision 2, Scuppers (Flap Valves) in Walls of Salt Service Water Pump Cubicles Fire Zones 5.1, 5.2, and 5.3
FPEE-11, Revision 1, Unfilled Block Walls Intake Structure
BECo Outgoing NRC Letter 2.88.120 dated 08/06/88

Section 1R11
Lesson Plan #O-RQ-02-02-89, Revision 1, Nuclear Boiler Instrumentation Laboratory
Drawing M253, Sheet 1, Revision 43, Nuclear Boiler Vessel Instrumentation
Licensed Operator Requalification Training Simulator Exam Scenario SES-2009-17, Revision 0
EN-TQ-201, "Systematic Approach to Training Process," Revision 10
NTM 3.5, "Nuclear Training Manual, Revision 34
1.3.34, "Operations Administrative Policies and Processes," Revision 116
EN-NS-112, "Medical Program," Revision 6
EN-TQ-202, Simulator Configuration Control," Revision 6
TRNA.25, "Configuration Management Procedure," Revision 11
TRNS.2, "Conduct of Simulator Operations," Revision 6
TRNS.1, "Simulator Regulatory Compliance Program," Revision 7
2.2.21.5, "HPCI Injection and Pressure Control," Revision 8

Other Guidance Documents:
ANSI/ANS 3.4-1983, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants"
NRC Information Notice 2009-21, "Incomplete Medical Testing for Licensed Operators"
ANSI/ANS 3.5-1985, "Nuclear Power Plant Simulators for use in Operator Training"

Condition Reports Related to Operator Performance (Reviewed for Inclusion in Training):
PNP-2008-1119
PNP-2008-947
PNP-2009-2083
PNP-2009-01828
PNP-2007-4871
PNP-2008-01757
PNP-2008-946

Condition Reports developed as a result of this inspection:
PNP-2009-04329
PNP-2009-04328
PNP-2009-04391
HQN-2009-00955
PNP-2009-04476

Core Performance Testing
Heat Balance; Core Thermal Power at 50% (02/17/09)
Shutdown Margin (06/03/09)
Core Criticality Comparisons at BOL (06/04/09)

Steady State Verification
Critical and non-Critical Parameters at 50% (02/18/09)

Parameter Drift Verification
FPSS parameter Drift Verification Test (02/20/09)

Operational Surveillances
Reactor Pressure Regulator Test (07/29/09)
Reactor Water Level Perturbation (07/29/09)

Transient Tests:
DBA Main Steam Line Rupture Outside P/C (10/23/08)
ATWS @ 100% RTP with ARI Failure (10/21/08
MSIV Closure with SORV abd no HP ECCS (10/16/09)
DBA LOCA with Loss of Offsite Power (10/16/08)
Single Reactor Recirculation Pump Trip (10/14/08)
Dual Reactor Recirculation Pump Trip (10/14/08)
Reactor Power Ramp Rate at Max (06/24/09)
Main Turbine Trip w/o Reactor Scram (10/07/09)
Simultaneous Closure of MSIVs (10/16/08)
Simultaneous trip of all reactor feed Pumps (10/06/09)
Manual Scram via Pushbuttons (10/05/09)
Recirculation Pump Seizure (10/23/08)Loss of Offsite Power to Station Auxiliaries (10/23/08)
Simultaneous Loss of Condenser vacuum (06/24/09)

Malfunction Testing:
Reactor Level Transmitter Fails As-Is (09/04/09)
Reactor level transmitter Fails Upscale (09/24/08)
Diesel Generator Fails to Start (07/01/08)
Automatic Voltage Regulator Fails Low (07/01/08)
250 VDC Distribution Panel Failure (09/25/08)
480 VAC Emergency Bus Failure (01/24/08)
Master Feedwater Level controller Fails As-Is (03/07/08)
Reactor Feed Pump Loss of Lube Oil (03/27/08)
K-117 Diesel Air Compressor System fault (01/21/08)

Process Radiation Detector Fails (12/06/07)
RBCCW Loop B Pump Trip (01/31/08)
Seawater Pump Trip (02/19/08)
HPCI Inadvertently Starts (04/09/08)
Drywell Pressure Transmitter Fails Low (01/23/08)
RPS Motor-Generator Set Trips (10/09/08)
Tube Leak in RWCU non-Regen Heat Exchanger (04/28/09
APRM fails Upscale (01/21/08)

Section 1R12

Maintenance Rule SSC Basis Document for Reactor Pressure Boundary Leak Detection System
Procedure EN-DC-167, Revision 2, Classification of Structures, Systems and Components
Reactor Pressure Boundary Leak Detection System Health Report
Emergency Operating Procedures
Procedure 5.3.35, Revision 13, Operations Management Emergency and Transient Response Expectations for Operating Crews
Procedure 5.3.35.1, Revision 4, Transient Response Hard Cards for Operating Crews
CR-PNP-2008-2275, "A" EDG has exceeded its unavailability criteria
Procedure EN-DC-204, Revision 1, Maintenance Rule Scope and Basis
EDG System Health Report
Procedure EN-DC-203, Revision 1, Maintenance Rule Program
Procedure EN-LI-119, Revision 8, Attachment 9.7, Apparent Cause Evaluation Process for CR-PNP-2009-4500
CR-PNP-2009-4500, "B" EDG Tripped on Over Crankcase Pressure
CR-PNP-2009-807, "A" EDG Starting Air Compressor has blown fuse
Procedure EN-DC-205, Revision 1, Maintenance Rule Monitoring

Section 1R13

Risk Profile for the week of October 5, 2009
Procedure 1.5.22, Revision 11, Risk Assessment Process
Control Room Logs
Daily Risk Sheets
Equipment Out-of-service Quantitative Risk Assessment Tool
Work and Testing schedule for the week of 11/16/09
NUMARC 93-01, Revision 2, Industry Guidelines for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants

Section 1R15

CR-PNP-2009-4205, Spurious closure of Condensate Storage Tank RCIC Suction Valve
CR-PNP-2009-4240, Potential Adverse Fire Impact on HPCI or RCIC Suction Valve from the CST
Procedure EN-OP-104, Revision 3, Operability Determinations
CR-PNP-2009-4430, Cooling Supply Ducts mesh size too small for East and West Salt Service Water Rooms
UFSAR Section 10.9, Heating, Ventilation, and Air Conditioning Systems
Part 9900: Technical Guidance, Operability Determinations and Functionality Assessments for Resolution of Degraded or Non-Conforming Conditions Adverse to Quality or Safety
Drawing M-336, Revision 11, Heating and Ventilation and Air Conditioning Plan
WO 0210889, Replace Screens with ¼" mesh

Procedure EN-OP-104, Revision 3, Operability Determinations
CR-PNP-2009-4500, "B" EDG Emergency Shutdown Due to Crankcase Exhaust Pressure
CR-PNP-2009-4684, "B" EDG Alarm Came in for Crankcase Exhaust Pressure
CR-PNP-2009-4685, "B" EDG Emergency Shutdown Due to Second Crankcase Exhaust Pressure Issue
Drawing M6-22-14, Sheet, 2, Revision 33, Diesel Generator "B" X107B Engine Control
CR-PNP-2009-4910, High Temperature Alarm Received on Control Rod 22-35
CR-PNP-2009-5002, High Temperature Alarm Received on Control Rod 22-27
CR-PNP-2009-5003, High Temperature Alarm Received on Control Rod 26-27
CR-PNP-2009-5033, Control Rods 22-27 and 26-27 experienced high temperature during weekly control rod exercise
EN-OP-104, Revision 2, Operability Determinations
CRD System Health Report

Section 1R18

Temporary Modification 18362, "Provide Temporary Modification to Disable Shutdown of "B" EDG on high crankcase vacuum pressure during surveillance testing conditions"
Temporary Modification 18370, "Revision to TMOD EC 18362"
Procedure EN-DC-136, Revision 5, Temporary Modifications
UFSAR, Chapter 8.5, Standby AC Power Source
Alarm Response Procedure C104B-A4
TS 3.9, Auxiliary Electrical System
Procedure EN-LI-100, Attachment 9.1, Process Applicability Determination Form for EC18362
CR-PNP-2009-4922, Temporary Modification 18362 used out of date revision for EN-DC-136
Temporary Modification EC15094, Lift lead on relay FS/E-81X in Panel C61 to clear trouble alarm for Drywell Cooling Unit Fan VAC-205B1
Drawing E189 Sh.2, Rev. 7, Schematic Diagram H&V System Drywell Cooling Fans
Alarm Response Procedure, Revision 18, ARP-C7L Page A1
EN-DC-115, Revision 7, Engineering Change Process
EC No. 8071, Seismic Monitoring Instrumentation System
UFSAR Chapter 12.2.3.5.2, Seismic Recording Instrumentation
Seismic Monitoring System Upgrade Installation Contingency Plan
EN-LI-100, Revision 8, Attachment 9.1, Process Applicability Determination Form
EN-DC-163, Revision 0, Attachment 9.1, Human Factors Evaluation Form
EN-DC-153, Revision 3, Attachment 9.2, System Classification Questionnaire
EN-DC-153, Revision 3, Attachment 9.3, Component Classification Questionnaire
EN-DC-15, Revision 7, Impact Screening Summary
EN-DC-115, Revision 7, Attachment 9.4, Detailed Screening Impact Criteria
EN-DC-117, Revision 2, Attachment 9.4, Post Modification Test Plan

Section 1R19

WO 51803893 03, Replace the Fuel Shutoff Solenoid for K-117
WO 51803893 01, Diesel Air Compressor K-117 Engine Check
WO 51803893 02, Diesel Air Compressor K-117 Post Maintenance Test
Procedure EN-WM-107, Revision 0, Post Maintenance Testing
Procedure EN-DC-117, Revision 2, Post Modification Testing and Special Instructions
Procedure 3.M.3-51, Revision 26, Electrical Termination Procedure
WO 51794451, Clean Out RCIC Steam Supply Line Strainer YS-8046 and Post Maintenance

Testing
Procedure EN-WM-105, Revision 5, Planning
Procedure EN-MA-118, Revision 5, Foreign Material Exclusion
WO 52192255, 8.I.26.5 Replacement of Rupture Disks 1301-9 (IST)
WO 51792752, 3.M.4-17.4 Lube Oil Change RCIC Pump P-206 Post Maintenance Test
WO 51792754, Overspeed Trip Maintenance X-202
Procedure 3.M.4-14, Revision 35, Rotating Equipment Inspection Assembly and Disassembly
Procedure 3.M.4-78, Revision 9, RCIC Turbine Major Preventive Maintenance Inspection
Procedure 8.5.5.8, Revision 30, RCIC Overspeed Trip Test
Procedure 3.M.4-107, Revision 6, RCIC Turbine Overspeed Trip Preventive Maintenance
Procedure 8.5.5.1, Revision 72, RCIC Pump Quarterly and Biennial Operability Flow Rate and Valve Test at approximately 1000 psig
WO 51687471, Diesel Generator Preventative Maintenance, X-107B Mechanical, 2 year PM
Procedure 8.9.1, Revision 112, EDG and Associated Emergency Bus Surveillance
WO 51647870, EDG "B" six year PM 3.M.3-61.10
WO 00180123, Perform EDG "B" twelve year PM IAW 3.M.3-61.12
WO 00172493, Perform EDG "B" sixteen year PM IAW 3.M.3-61.13 X-1007B Post Work Test Bearing Temperatures
CR-PNP-2009-4115, "B" Diesel Damper Position Alarms
CR-PNP-2009-4106, "B" EDG Governor speed setting outside of specified setting
CR-PNP-2009-4110, "B" EDG Cathodic protection was out of range
WO 00196345, Air start motors upgrade, "EC12969" upgrade on EDG X-107B
WO 00167856, Replace fuel injector snubber valves on "B" EDG
WO 00210478, Pump will not start from the main control room
Procedure 3.M.3-47.1, Revision 27, "A" Train Functional Test of Individual Load Shed Components
Maintenance Briefing Sheet
Control Room Logs
MSPI Emergency AC Power System Data Sheets from October 2008 until September 2009
WO 00190000 02, Overhaul SSW P-208A iaw 3.M.4-14.2
Procedure 3.M.4-14.2, Revision 56, Salt Service Water Pumps: Routine Maintenance
WO 00190000 03, Post Maintenance Test P-208A
VT-2 Examination of SSW Pump P-208A
Procedure 8.5.3.2.1, Revision 22, Service Water Pump Quarterly and Biennial (Comprehensive) Operability and Valve Operability Tests
WO 00145481 01, Replace Reed Switches for Position Indicating Lights on SV-5065-27B
Procedure 3.M.3-51, Revision 26, Electrical Termination Procedure
EC16564, Revision 0, Replace SV-5065-27B Reed Switches with High Sensitivity Switches
V-0429, Revision 8, Valcor Solenoid Valves
WO 00145481 02, Post Work Test for SV-5065-27B Reed Switches
Procedure 8.7.4.8.4, Revision 3, PASS Panel Torus Gas Isolation Valve Position Indication Verification
Procedure 8.7.4.1, Revision 14, PASS and H_2/O_2 Analyzer Valves Quarterly Operability

Section 1R22

WO 52197556, LPCI and Containment Cooling MOV operability test
Procedure 8.I.32, Revision 6, Determination of limiting stroke time acceptance criteria for inservice testing and Appendix B test programs power-operated valves

Procedure 8.I.1, Revision 19, Administration of inservice pump and valve testing
Procedure 8.5.2.3, Revision 49, LPCI and containment cooling motor-operated valve operability test
Procedure 8.I.1.1, Revision 22, Inservice pump and valve testing program
Control Room Logs
Procedure 8.4.1, Revision 69, Standby liquid control pump quarterly and biennial capacity and flow rate test
CR-PNP-2009-3088, Standby liquid control pump "A" did not meet acceptance criteria
CR-PNP-2008-3216, Standby liquid control pushbutton not fully depressed during surveillance
TS 4.4, Standby liquid control system surveillance requirements
CR-PNP-2009-04380, Procedure steps may impact acceptance criteria for Procedure 8.4.1
Procedure 8.I.1.1, p. 110, Pump relief request PR-05
ML 040780705, Fourth 10-year inservice testing program and request for approval of IST relief requests
Technical Specifications
Pre-job brief checklist for surveillance on 11/5/09
Procedure 8.5.3.2.1, Revision 22, Salt Service Water Pump Quarterly and Biennial (Comprehensive) Operability and Valve Operability Tests
CR-PNP-2009-05061, "C" SSW pump is in alert range

Section 1EP2

Alert and Notification System (ANS) Evaluation

RFQ# NP00121, Specifications for the Prompt Alert Siren Notification System for the Pilgrim Nuclear Power Station
EP-AD-302, Revision 3, Facilities and Equipment Surveillance
EP-AD-417, Revision 3, Annual Siren Test Program
EP-AD-418, Revision 10, Monthly Testing of the Prompt Alert and Notification System (PANS)
EP-AD-419, Revision 8, Annual Maintenance of the PANS
Sirens and Computerized Automatic Notification System (CANS) Testing and Performance Audit, June 1-4, 2009
PANS Monthly Maintenance Forms, January 2008 – September 2009
PANS-related Condition Reports, January 2008 – September 2009

Section 1EP3

Emergency Response Organization (ERO) Staffing and Augmentation System

EP-PP-01, Revision 34, Pilgrim Nuclear Power Station Emergency Plan, Section B: Station Emergency Organization
EP-AD-411, Revision 6, Testing of the CANS
ENN-PL-140, Revision 1, Emergency Response Organization Respiratory Protection Guidelines
NOP88A4, Revision 13, Assignment of Responsibilities: Support of the PNPS Emergency Preparedness Program
PNPS Nuclear Training Manual (Revision 32)
PNPS ERO Roster (dated October 2009)
Combined Functional Drill Reports 08-02, 08-03, 09-01, 09-02
October 28, 2008, Unannounced Off-Hour Activation Drill Report (08-04)
ERO-related Condition Reports, January 2008 – September 2009

Section 1EP4

Emergency Action Level (EAL) and Emergency Plan Changes
EP-PP-01, Revision 34, Pilgrim Nuclear Power Station Emergency Plan
EN-LI-100, Revision 8, Process Applicability Determination
EN-EP-305, Revision 1, Emergency Planning 10CFR50.54(q) Review Program
EN-IP-100.1, Revision 5, Emergency Action Levels
EN-AD-600, Revision 5, Emergency Action Level Bases Document
TSG-200, Revision 3, Plant Condition Assessment Guideline
50.54(q) Screenings performed between April 2008 and October 2009

Section 1EP5
Correction of Emergency Preparedness Weaknesses
Quality Assurance Audit Report QA-07-2008-PNP-01, Emergency Preparedness Program
Quality Assurance Audit Report QA-07-2009-PNP-01, Emergency Preparedness Program
Quality Assurance Surveillance Report, QS-2006-PNP-023, Entergy Interface with State and Local Officials
Quality Assurance Surveillance Report, QS-2008-PNP-001, Entergy Interface with State and Local Officials
Quality Assurance Surveillance Report, QS-2008-PNP-003, Assessment of Emergency Preparedness Program
Quality Assurance Surveillance Report, QS-2008-PNP-022, PNPS Staffing Contingency Plans
Quality Assurance Surveillance Report, QS-2008-PNP-059, Follow-up of Corrective Actions for CR-PNP-2008-01542 and CR-PNP-2008-01709
Quality Assurance Surveillance Report, QS-2009-PNP-035, QA Follow-up Surveillance of 2009 Emergency Preparedness Audit QA-07-2009-PNP-01
QA Observation Reports O2C-PNPS-2008-0003, -0017, -0024, -0057, -0059, -0065, and -0125
QA Observation Reports O2C-PNPS-2009- 0026, -0035, -0050, -0051, -0052,-0056, -0077, -0080, -0081, -0089, -0090, -0110, -0119, and -0348
Apparent Cause Evaluation CR-PNP-2009-2625, During 5/28/09 EP Drill the 15-minute notification time for State and Local communication was not met
Combined Functional Drill Reports 08-02, 08-03, 09-01, and 09-02
CR-PNP-2008-01542, ERO Augmentation System fails to validate the ability to activate the Emergency Facilities or meet Table B-1 staffing goals
CR-PNP-2008-03435, Unusual Event declared due to a fire on 10/29/08
CR-PNP-2009-00260, EP Audit frequency, including oversight of the EP interface with State and Local agencies, has exceeded the 12-month frequency identified in 10CFR50.54(t)
LO-PNPLO-2009-0024, Focused Self-Assessment – Siren and CANS testing and Performance
LO-WTPNP-2009-0195, Corrective Actions for May 28, 2009, Drill
EP-related Condition Reports written between January 2008 and October 2009

Section 4OA1
NRC Performance Indicator Data Sheet MSPI- Cooling Water System/RBCCW October 2008 – September 2009
NRC Performance Indicator Data Sheet MSPI- Cooling Water System/SSW October 2008 – September 2009
NEI-99-02, Revision 6, Regulatory Assessment Performance Indicator Guidelines
Monthly Data for RBCCW and SSW System Unavailability and Pump starts from 4th quarter 2008 through 3rd quarter 2009
MSPI Basis Document

SSW and RBCCW System Health Reports
NRC MSPI for RBCCW and SSW
CR-PNP-2008-3509, P-202F Unavailability Hours
CR-PNP-2008-3959, P-202C Seal Leakage
PNPS-RPT-05-009, Revision 2, PNPS PSA Model Input for Mitigating Systems Performance Index
EDG System Health Report
CR-PNP-2009-4500, "B" EDG Tripped on Over Crankcase Pressure
CR-PNP-2009-807, "A" EDG Starting Air Compressor has blown fuse
EDG Performance Indicator Data Sheets from October 2008 to September 2009
Control Room Logs
EN-LI-114, Revision 4 Performance Indicator Process
EN-EP-201, Revision 9, Performance Indicators
EP-AD-150, Revision 2, Emergency Preparedness Performance Indicator Tracking Guideline
DEP PI data, April 2008 – September 2009
ERO Drill Participation PI data, April 2008 - September 2009
ANS Reliability PI data, April 2008 - September 2009

Section 4OA2

CR-PNP-2009-3064, Temporary Modification CR Review
Email from assistant operations manager – Operations support to shift managers regarding temporary modification documentation, dated 12/1/2009
CR-PNP-2009-4922, Incorrect revision of EN-DC-136 used in the generation of the "B" EDG crank case over pressure trip temporary modification
CR-PNP-2009-4967, Temporary modification tags missing from alarm response procedure
CR-PNP-2009-2085, Shutdown floodup level indication temporary modification missing a tag
CR-PNP-2009-2187, RHR valve temporary modification missing tags
CR-PNP-2009-1468, Temporary modification tags for RBCCW loop cross tying procedure
CR-PNP-2009-2778, Adverse Trend in Post Maintenance Testing
Apparent Cause Evaluation of Post Maintenance Testing Adverse Trend
Procedure EN-DC-203, Revision 1, Maintenance Rule Program
Procedure EN-DC-205, Revision 2, Maintenance Rule Monitoring
Procedure EN-LI-102, Revision 13, Corrective Action Process
Procedure EN-LI-119, Revision 8, Apparent Cause Evaluation (ACE) Process
Procedure EN-MA-118, Revision 5, Foreign Material Exclusion
Procedure EN-WM-101, Revision 6, On-line Work Management Process
Procedure EN-WM-105, Revision 5, Planning
Procedure 3.M.4-125, Revision 0, Inspection and Maintenance of Secondary Containment Dampers
Procedure 8.7.3, Revision 57, Secondary Containment Leak Rate Test
Calculation C.15.0.3381, Revision 2, Allowable Secondary Containment System Leakage Area and Gaps at Doors
MRSSC21, Revision 0, Maintenance Rule Basis Document for Heating, Ventilation, and Air Conditioning 0
CEP-IST-4, Revision 304, Standard on Inservice Testing
CR-PNP-2008-0140, Secondary Containment Damper AO-N-78 did not go fully closed
CR-PNP-2008-0143, AO-N-78 did not go fully closed when given a closed signal
CR-PNP-2007-1172, Discrepancies found during inspection of the Reactor Building Supply Fan

damper sealing surfaces
CR-PNP-2009-4197, Review of Maintenance Rule implementation at Pilgrim indicates there are gaps to excellence
CR-PNP-2009-1467, FME debris was identified during camera verification of delatching the separator
CR-PNP-2009-1503, FME either in the vessel or reactor cavity, from the two failed cap screws
CR-PNP-2009-1614, FME Zone 1 controls established for the Turbine Projection have been inadequate
CR-PNP-2009-1767, IVVI Program inspections in RF017 identified FME on noted locations
CR-PNP-2009-1778, FME event that occurred during inspection of JP-11 and 12 of the JPIT
CR-PNP-2009-1812, FME was discovered in the coupling spud mechanism
CR-PNP-2009-1850, FME issue at the 315 Tie Rod work location
CR-PNP-2009-2002, Further FME in RPV

Section 40A3
Power Maneuver Plan
Procedure 2.4.A.23, Revision 12, Loss/Degradation of 23 kV line
Technical Specifications
Control room logs
CR-PNP-2009-4836, Loss of 23 kV line
PNPS-FSAR, Revision 21, Section 5.3, Secondary Containment System
Calculation C15.0.3381, Revision 2, Allowable Secondary Containment System Leakage Area and Gaps at Doors
Standby Gas System Training Manual, Revision 0
CR-PNP-2009-5295, Torus Trough is dry

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
ANS	Alert and Notification System
ANSI/ANS	American National Standards Institute/American Nuclear Society
CANS	Computerized Automatic Notification System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CIV	Containment Isolation Valve
CR	Condition Report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EAL	Emergency Action Level
EP	Emergency Preparedness
EDG	Emergency Diesel Generator
EOP	Emergency Operating Procedure
EPG	Emergency Procedure Guideline
ERO	Emergency Response Organization
ESF	Emergency Safeguards Feature
FME	Foreign Material Exclusion
HPCI	High Pressure Coolant Injection
HVAC	Heating, Ventilation, and Air Conditioning
IMC	Inspection Manual Chapter
IN	Information Notice
IR	Inspection Report
IST	Inservice Testing
JPM	Job Performance Measure
LCO	Limiting Condition for Operation
LER	Licensee Event Report
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NOTICE	Notice of Violation
NRC	Nuclear Regulatory Commission
PANS	Prompt Alert and Notification System
PDC	Plant Design Change
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Test
PNPS	Pilgrim Nuclear Power Station
PTL	Pull-To-Lock
QA	Quality Assurance
RBCCW	Reactor Building Closed Cooling Water
RCIC	Reactor Core Isolation Cooling
RFO	Refueling Outage
SBLC	Standby Liquid Control
SDP	Significance Determination Process
SER	Safety Evaluation Report
SSC	Structure, System or Component

Attachment

SSW	Salt Service Water
TI	Temporary Instruction
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
VIO	Violation
WO	Work Order

Attachment