



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
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KING OF PRUSSIA, PENNSYLVANIA 19406-2713

May 8, 2013

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

SUBJECT: PILGRIM NUCLEAR POWER STATION - NRC INTEGRATED INSPECTION
REPORT 05000293/2013002

Dear Mr. Smith:

On March 31, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Pilgrim Nuclear Power Station (PNPS). The enclosed inspection report documents the inspection results, which were discussed on April 10, 2013, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings were identified during this inspection.

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

Sincerely,

/RA/

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

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

Enclosure: Inspection Report 05000293/2013002
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.: 50-293

License Nos.: DPR-35

Report No.: 05000293/2013002

Licensee: Entergy Nuclear Operations, Inc.

Facility: Pilgrim Nuclear Power Station (PNPS)

Location: 600 Rocky Hill Road
Plymouth, MA 02360

Dates: January 1, 2013 through March 31, 2013

Inspectors: M. Schneider, Senior Resident Inspector, Division of Reactor Projects (DRP)
B. Smith, Resident Inspector, DRP
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Approved By: Ronald R. Bellamy, PhD, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Enclosure

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SUMMARY

IR 05000293/2013002, 01/01/2013–03/31/2013; Pilgrim Nuclear Power Station; Routine Integrated Inspection Report.

This report covered a three-month period of inspection by resident inspectors and announced inspections performed by regional inspectors. 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.

REPORT DETAILS

Summary of Plant Status

Pilgrim Nuclear Power Station began the inspection period operating at 100 percent reactor power. On January 10, 2013, Pilgrim scrambled from 100 percent reactor power due to a dual trip of both recirculation pumps and entered Forced Outage 19-5. On January 17, Pilgrim returned to 100 percent reactor power. On January 18, Pilgrim reduced reactor power to 72 percent to perform a control rod pattern adjustment and returned to 100 percent reactor power on January 19. On January 20, Pilgrim shut down and entered Forced Outage 19-6 to repair a leaking pilot valve on one of their safety-relief valves (SRVs). On January 24, Pilgrim returned to 100 percent reactor power. On January 25, Pilgrim reduced reactor power to 71 percent to perform a control rod pattern adjustment and returned to 100 percent reactor power later that same day. On February 3, Pilgrim reduced reactor power to 80 percent due to a leaking pilot valve on an SRV. On February 8, Pilgrim scrambled from 80 percent reactor power due to a loss-of offsite power and main generator load reject. Pilgrim entered Forced Outage 19-7 to address degraded conditions from these events and to repair the leaking SRV. On February 16, Pilgrim returned to 100 percent reactor power. On February 17, Pilgrim reduced reactor power to 70 percent to perform a control rod pattern adjustment and returned to 100 percent reactor power on February 18. On February 26, Pilgrim reduced reactor power to 94 percent due to a leaking pilot valve on an SRV. The valve reseated and Pilgrim remained at 94 percent reactor power. On March 19, Pilgrim reduced reactor power to 52 percent to perform a control rod pattern adjustment and returned to 94 percent reactor power on March 20. On March 29, Pilgrim reduced reactor power to 86 percent due to a leaking pilot valve on an SRV and remained at that power level through the end of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 3 samples)

.1 Impending Winter Storm and Extreme Cold Weather

a. Inspection Scope

The inspectors performed a review of Pilgrim's readiness for an impending winter storm and extreme cold weather on January 24. The review focused on the station's emergency diesel generators and the intake structure. The inspectors reviewed station procedures including Pilgrim's coastal storm and cold weather procedures. The inspectors performed walkdowns of the selected systems to ensure that station personnel had identified issues that could challenge the operability of the systems during extreme cold conditions. Documents reviewed for each section of this inspection report are listed in the Attachment.

b. Findings

No findings were identified.

Enclosure

.2 Impending Winter Storm

a. Inspection Scope

The inspectors performed a review of Pilgrim's readiness for Winter Storm Nemo on February 8. The review focused on the switchyard, intake structure, and emergency diesel generators. The inspectors reviewed station procedures including Pilgrim's coastal storm and high wind procedures. The inspectors performed walkdowns of the selected systems to ensure that station personnel had identified issues that could challenge the operability of the systems during winter storm conditions. During the storm, Pilgrim's available offsite power supplies were lost which resulted in a main generator load reject; reactor scram and declaration of a Notice of Unusual Event (see section 4OA3.5).

b. Findings

No findings were identified.

.3 Impending Winter Storm

a. Inspection Scope

The inspectors performed a review of Pilgrim's readiness for a winter storm on February 17. The review focused on the station's emergency diesel generators, diesel driven air compressor, and security diesel generator. The inspectors reviewed station procedures including Pilgrim's coastal storm and high wind procedures. The inspectors performed walkdowns of the selected systems to ensure that station personnel had identified issues that could challenge the operability of the systems during winter storm conditions.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial System Walkdowns (71111.04 – 4 samples)

a. Inspection Scope

The inspectors conducted partial walkdowns of the following systems:

- 'A' residual heat removal (RHR) system following 'B' RHR maintenance
- 'A' and 'B' emergency diesel generators with an inoperable station blackout diesel generator and an inoperable high pressure coolant injection system
- Diesel driven fire pump with an inoperable electric fire pump
- Reactor core isolation cooling system prior to high pressure coolant injection system maintenance

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed

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

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – 5 samples)

a. Inspection Scope

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

- Fire Area 1.9, Fire Zone 1.1, 'A' RHR and Core Spray Pumps Quadrant
- Fire Area 1.9, Fire Zone 3.5, Vital Motor Generator Set Room
- Fire Area 1.10, Fire Zone 1.5, Reactor Core Isolation Cooling Pump Quadrant
- Fire Area 1.10, Fire Zone 1.26, Auxiliary Boiler Room
- Fire Area 1.10, Fire Zone 2.1, 'B' 4160V Switchgear Room

b. Findings

No findings were identified.

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

.1 Regualification Review by Resident Inspectors

a. Inspection Scope

The inspectors observed licensed operator simulator training on February 25, which included a loss of the shutdown transformer combined with turbine high vibration, requiring a reactor scram. The inspectors evaluated operator performance during the

simulated event and verified completion of risk significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the TS action statements evaluated by the shift control room engineer. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems. Finally, the inspectors performed a simulator fidelity review to determine if the arrangement of the simulator instrumentation, controls, and tagging closely paralleled that of the control room.

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Performance in the Main Control Room

a. Inspection Scope

The inspectors observed main control room activities during one reactor scram, a loss of instrument air, and down power maneuvers due to SRV-3B pilot leakage. See section 4OA3 for specific discussion of these activities. The inspectors reviewed procedural guidance for station power changes, power maneuver plans, abnormal operating procedures, and observed control room conduct and control of these evolutions and events.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – 3 samples)

a. Inspection Scope

The inspectors reviewed the samples listed below to assess the effectiveness of maintenance activities on structures, systems and components (SSC) performance and reliability. The inspectors reviewed system health reports, CAP documents, maintenance work orders, and maintenance rule basis documents to ensure that Entergy was identifying and properly evaluating performance problems within the scope of the maintenance rule. For each sample selected, the inspectors verified that the SSC was properly scoped into the maintenance rule in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by Entergy staff was reasonable. As applicable, for SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that Entergy staff were identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

- 480 Volt Alternating Current system review and (a)(1) versus (a)(2) classification
- Main condenser vacuum breaker AO-3707 functional failure review
- Secondary containment air lock door missing a seal functional failure review

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 6 samples)

a. Inspection Scope

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

- Emergent risk assessment with 'B' suppression pool cooling and 'B' containment spray inoperable
- Emergent risk assessment with the '3B' SRV leaking and a plant downpower
- Emergent risk assessment for the start-up transformer inoperable
- Emergent review of shutdown risk during a forced outage and the potential to drain the reactor vessel
- Emergent review of shutdown risk during a loss of offsite power event
- Emergent risk assessment for high pressure coolant injection maintenance, the station blackout diesel generator out of service, '3B' SRV leakage, and main generator rectifier bank #4 leakage

b. Findings

No findings were identified.

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

a. Inspection Scope

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

- K-117 diesel air compressor tripped
- Operational decision making issue concerning main generator rectifier bank #4 leakage
- Reactor core isolation cooling steam admission line drain valve body to bonnet steam leak

- Secondary containment fan room door seal missing
- SRV RV-203-3B pilot leakage exceeded 35 degree limit

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations and functionality assessments to assess whether TS operability was properly justified and whether the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to Entergy evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled by Entergy. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 2 samples)

Temporary Modifications

a. Inspection Scope

The inspectors reviewed the temporary modifications listed below to determine whether the modifications affected the safety functions of systems that are important to safety. The inspectors reviewed 10 CFR 50.59 documentation and post-modification testing results, and conducted field walkdowns of the modifications to verify that the temporary modifications did not degrade the design bases, licensing bases, and performance capability of the affected systems.

- Engineering Change (EC) 42584: Use of Motor Control Center B17 to provide temporary power to spent fuel pool cooling pump P-210A
- EC 42611: Use of portable COPCO air compressor to provide back-up instrument air

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 6 samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure was consistent with

the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- 'B' phase on the start-up transformer insulator flash-over maintenance testing
- High pressure coolant injection electrical breaker and knife switch replacement
- K-111 air compressor motor replacement
- Condensate storage tank low level relay replacement
- 'B' reactor building component cooling water check valve internals replacement
- SRV RV-203-3B pilot valve replacement

b. Findings

No findings were identified.

1R20 Refueling and Other Outage Activities (71111.20 – 3 samples)

.1 Forced Outage 19-5

a. Inspection Scope

The inspectors reviewed the outage schedule and shutdown risk assessments for a forced outage performed from January 10 through January 16. The outage was performed following a reactor scram due to the inadvertent trip of both recirculation pumps. During this outage, the inspectors observed plant shutdown and start-up, as well as the outage activities listed below:

- Cold and hot shutdown temperature control
- Shutdown risk assessment and risk management
- Implementation of TS
- Outage Control Center activities
- Plant startup
- Licensee identification and resolution of problems.

b. Findings

No findings were identified.

.2 Forced Outage 19-6

a. Inspection Scope

The inspectors reviewed the outage schedule and shutdown risk assessments for a forced outage performed from January 20 through January 23. The outage was performed following a plant shutdown due to pilot valve leakage on the '3B' SRV. During this outage, the inspectors observed plant shutdown and start-up, as well as the outage activities listed below:

- Cold and hot shutdown temperature control

- Shutdown risk assessment and risk management
- Implementation of TS
- Outage Control Center activities
- Plant startup
- Licensee identification and resolution of problems.

b. Findings

No findings were identified.

.3 Forced Outage 19-7

a. Inspection Scope

The inspectors reviewed the outage schedule and shutdown risk assessments for a forced outage performed from February 8 through February 14. The outage was performed following a loss of offsite power event and subsequent reactor scram. In addition, previous pilot valve leakage on SRV RV-203-3B required a repair to be performed. During this outage, the inspectors observed plant shutdown, restoration of off-site power, and start-up, as well as the outage activities listed below:

- Cold and hot shutdown temperature control
- Shutdown risk assessment and risk management
- Implementation of TS
- Outage Control Center activities
- Plant startup
- Licensee identification and resolution of problems.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 5 samples)

a. Inspection Scope

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

- 'A' emergency diesel generator monthly surveillance
- Functional test of the initiation circuit associated with the start-up transformer and vital bus A5
- Reactor coolant leakage surveillance

- Reactor core isolation cooling pump quarterly and biennial operability flow rate and valve in-service test
- Scram discharge instrument volume vent and drain valve quarterly operability in-service test

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

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

a. Inspection Scope

NRC staff from the Office of Nuclear Security and Incident Response performed an in-office review of the latest revisions of various Emergency Plan Implementing Procedures and the Emergency Plan located under ADAMS accession numbers ML13016A123, ML13042A151, and ML130230023 as listed in the Attachment.

Entergy determined that in accordance with 10 CFR 50.54(q), the changes made in the revisions resulted in no reduction in the 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 Part 50. The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06 – 1 sample)

Simulator Training Evaluation

a. Inspection Scope

The inspectors observed a licensed operator requalification training simulator exercise on February 25. The inspectors evaluated operator performance in the simulator for two scenarios; a loss of the shutdown transformer combined with turbine high vibration requiring a reactor scram; and a subsequent leaking safety valve. The scenarios required the declaration of an Alert.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.04)

This area was inspected to review and assess Entergy's performance in assessing the radiological hazards in the workplace and the implementation of appropriate radiation monitoring and exposure control measures for both individual and collective exposures.

During March 18 - 21, the inspector interviewed the radiation protection manager, radiation protection supervisors, and radiation workers. The inspector performed walk-downs of various portions of the plant, performed independent radiation dose rate measurements, observed work activities in Radiological Control Areas and reviewed licensee documents. The inspector used the requirements in 10 CFR Part 20 and guidance in Regulatory Guide 8.38, "Control of Access to High and Very High Radiation Areas for Nuclear Plants," the TS, and the licensee's procedures required by TS as criteria for determining compliance.

a. Inspection Scope

Inspection Planning

The inspector reviewed 2012 licensee performance indicators (PIs) for the occupational exposure cornerstone for Pilgrim. The inspector reviewed the results of radiation protection program audits. The inspector reviewed any reports of operational occurrences related to occupational radiation safety since the last inspection.

Radiological Hazard Assessment

The inspector determined if there have been changes to plant operations since the last inspection that may result in a significant new radiological hazard for onsite workers or members of the public. The inspector evaluated whether Entergy assessed the potential impact of these changes and has implemented periodic monitoring to detect and quantify the radiological hazard.

The inspector reviewed radiological surveys from the reactor building, radwaste areas, and turbine building. Particular attention was given to those areas that experienced a dose rate increase due to a recent crud burst; i.e. the reactor building A & B quadrants, the reactor water cleanup (RWCU) non-regenerative heat exchanger area, and the RWCU pump room. The inspector evaluated whether the thoroughness and frequency of the surveys were appropriate for the radiological hazard.

The inspector conducted walk-downs and independent radiation measurements in the facility, including the reactor building, turbine building, and radioactive waste processing, storage, and handling areas to evaluate material and radiological conditions.

The inspector selected the following radiological risk-significant work activities that involved exposure to radiation:

- Flushing a hot spot from the RWCU non-regenerative heat exchanger (radiation work permit (RWP) 2013-065)
- Radwaste Processing (RWP 2013-002)
- Scaffolding erection in various plant areas(RWP 2013-068)

- Outage Preparations on the turbine deck (RWP 2013-086)

For these work activities, the inspector assessed whether the pre-work surveys were appropriate to identify and quantify the radiological hazard and to establish adequate protective measures. The inspector evaluated the radiological survey program to determine if radiological hazards were properly identified (e.g., discrete radioactive hot particles, alpha emitters contamination, transuranics and hard to detect nuclides in air samples, transient dose rates and large gradients in radiation dose rate).

The inspector observed work in potential airborne areas and evaluated whether the air samples from five continuous air monitors (CAMs) located in the turbine, reactor, and radwaste processing buildings, were representative of the breathing air zone and were properly evaluated. The inspector evaluated whether these CAMs were located in areas with low background sensitivity and were representative of actual work areas. The inspector evaluated Entergy's program for monitoring levels of loose surface contamination in areas of the plant with the potential for the contamination to become airborne.

Instructions to Workers

The inspector selected five containers of non-exempt licensed radioactive material that may cause unplanned or inadvertent exposure of workers. The inspector assessed whether the containers were labeled and controlled appropriately.

The inspector reviewed the following radiation work permits used to access high radiation areas (HRA) and evaluated if the specified work control instructions and control barriers were consistent with TSs for HRAs:

- Flushing a hot spot from the RWCU non-regenerative heat exchanger (RWP 2013-065)
- Radwaste Processing (RWP 2013-002)
- Scaffolding erection in various plant areas (RWP 2013-068)
- Outage Preparations on the turbine deck (RWP 2013-086)
- Thermix System Operations, Repairs, and Filter Changes (RWP 2013-064)

For these radiation work permits, the inspector assessed whether allowable stay times or permissible dose were clearly identified. The inspector evaluated the applicable electronic personal dosimeter alarm set-points.

The inspector reviewed seven occurrences when personal dosimeters alarmed. The inspector evaluated whether workers responded appropriately to the off-normal condition. The inspector assessed whether the issue was included in the CAP.

Contamination and Radioactive Material Control

The inspector observed the main control point and reactor sampling sink area, where Entergy monitors potentially contaminated material leaving the radiological control area and inspected the methods used to control, survey, and release material from these areas. The inspector observed the performance of personnel surveying and releasing material for unrestricted use and evaluated whether the survey was performed in accordance with requirements. The inspector assessed whether the radiation

monitoring instrumentation used for equipment release and personnel contamination surveys had appropriate sensitivity for the type(s) of radiation present.

The inspector reviewed Entergy's criteria for the survey and release of potentially contaminated material. The inspector reviewed Entergy's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters.

The inspector evaluated the current status of nationally tracked sources and whether any transfer transactions were reported as required.

Radiological Hazards Control and Work Coverage

The inspector evaluated ambient radiological conditions and performed independent radiation measurements. The inspector assessed whether the conditions were consistent with applicable posted surveys, radiation work permits, and associated worker briefings.

The inspector evaluated the adequacy of radiological controls, such as required surveys, radiation protection job coverage and contamination controls. The inspector evaluated Entergy's use of electronic personal dosimeters in high noise areas associated with high radiation areas.

The inspector assessed whether radiation monitoring devices were placed on the individual's body in the location of highest expected dose or that Entergy properly implemented an NRC-approved method of determining effective dose equivalent.

The inspector reviewed the application of dosimetry to effectively monitor exposure to personnel in high-radiation work areas with significant dose rate gradients.

The inspector examined the posting and physical controls for selected high radiation areas and very high radiation areas to verify conformance with the occupational performance indicator.

Risk-Significant High Radiation Area and Very High Radiation Area Controls

The inspector discussed with the Radiation Protection Manager the controls and procedures for locked high radiation areas (LHRA) and very high radiation areas (VHRA). The inspector assessed whether any changes to Entergy's relevant procedures substantially reduced the effectiveness and level of worker protection.

The inspector discussed with first-line health physics supervisors the controls in place for special areas that have the potential to become very high radiation areas during certain plant operations. The inspector assessed whether these plant operations require communication beforehand with the health physics group, so as to allow corresponding timely actions to properly post, control, and monitor the radiation hazards including re-access authorization.

The inspector evaluated Entergy controls for VHRAs and LHRAs, with the potential to become a VHRA, to ensure that an individual was not able to gain unauthorized access to these very high radiation areas. Included in this review was an evaluation that all keys of LHRAs and VHRAs were accounted for and controlled.

Radiation Worker / Technician Performance

The inspector observed radiation worker performance. The inspector assessed whether workers were aware of the radiological conditions in their workplace and the radiation work permit controls/limits in place, and whether their behavior reflected the level of radiological hazards present.

The inspector reviewed ten radiological problem reports since the last inspection. The inspector evaluated whether there was an observable pattern traceable to a similar cause. The inspector assessed whether this perspective matched the corrective action approach taken by Entergy to resolve the reported problems.

Problem Identification and Resolution

The inspector evaluated whether problems associated with radiation monitoring and exposure control were being identified by Entergy at an appropriate threshold and were properly addressed for resolution in Entergy's CAP. The inspector assessed the appropriateness of the corrective actions for a selected sample of problems documented by Entergy that involve radiation monitoring and exposure controls. The inspector assessed Entergy's process for applying operating experience to their plant.

b. Findings

No findings were identified.

2RS2 Occupational ALARA Planning and Controls (71124.02)

This area was inspected to assess performance with respect to maintaining occupational individual and collective radiation exposures as low as is reasonably achievable (ALARA). The inspector used the requirements in 10 CFR Part 20, Regulatory Guide 8.8, "Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Plants will be As Low As Reasonably Achievable," Regulatory Guide 8.10, "Operating Philosophy for Maintaining Occupational Radiation Exposure As Low as Reasonably Achievable," the TS, and the licensee's procedures required by TS as criteria for determining compliance.

a. Inspection Scope

Inspection Planning

The inspector reviewed pertinent information regarding Pilgrim collective dose history, current exposure trends, and ongoing or planned activities in order to assess current performance and exposure challenges. The inspector reviewed the plant's three year rolling average collective exposure and compared the site-specific trends in collective exposures against the industry average values. In addition, the inspector reviewed changes in the radioactive source term by reviewing the radiation surveys for plant systems and components affected by a recent crud burst. The inspector reviewed site-specific procedures associated with maintaining occupational exposures ALARA, which included a review of processes used to estimate and track exposures from specific work activities.

Radiological Work Planning

The inspector selected the following on-going work activities that had the highest exposure significance:

- Flushing a hot spot from the RWCU non-regenerative heat exchanger (RWP 2013-065)
- Radwaste Processing (RWP 2013-002)
- Scaffolding erection in various plant areas (RWP 2013-068)
- Outage Preparations on the turbine deck (RWP 2013-086)
- Thermix System Operations, Repairs, and Filter Changes (RWP 2013-064)

Additionally, the inspector reviewed up-coming jobs scheduled for the spring 2013 outage, whose dose estimate exceeded 5 person-rem. Included in this review were:

- Scaffolding installation in reactor building LHRAs (RWP 2013-481)
- Temporary shielding installation in the Drywell (RWP 2013-501)
- Remove and install safety relief valves (RWP 2013-506)
- Drywell Insulation Support (RWP 2013-539)

The inspector reviewed the ALARA work hour evaluations, exposure estimates, and exposure reduction requirements, and determined whether Entergy reasonably grouped the radiological work into work activities based on historical precedence.

The inspector assessed whether Entergy's planning identified appropriate dose reduction techniques, considered alternate dose reduction features, and estimated reasonable dose goals. The inspector evaluated whether Entergy's ALARA assessment had taken into account decreased worker efficiency from use of respiratory protective devices and/or heat stress mitigation equipment. The inspector determined whether Entergy's work planning considered the use of remote technologies as a means to reduce dose and the use of dose reduction insights from industry operating experience and plant-specific lessons learned. The inspector assessed the integration of ALARA requirements into work procedure and radiation work permit documents.

Verification of Dose Estimates and Exposure Tracking Systems

The inspector reviewed the assumptions and basis for the current annual collective exposure estimate for accuracy. The inspector reviewed applicable procedures to determine the methodology for estimating exposures from specific work activities and for department and station dose goals.

The inspector evaluated whether Entergy had established measures to track, trend, and if necessary, to reduce occupational doses for ongoing work activities. The inspector assessed whether dose threshold criteria were established to prompt additional reviews and/or additional ALARA planning and controls.

Source Term Reduction and Control

The inspector used Entergy records to determine the recent trends and current status of plant source term known to contribute to collective exposure. The inspector assessed whether Entergy had made allowances or developed contingency plans for expected

changes in the source term as the result of changes in plant fuel performance issues or changes in primary chemistry.

Radiation Worker Performance

The inspectors observed radiation worker and radiation protection technician performance during work activities being performed in radiation areas, airborne radioactivity areas, or high radiation areas. The inspectors evaluated whether workers demonstrated the ALARA philosophy in practice and whether there were any procedure compliance issues.

Problem Identification and Resolution

The inspector evaluated whether problems associated with ALARA planning and controls are being identified by Entergy at an appropriate threshold and were properly addressed for resolution in Entergy's CAP.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08 – 1 sample)

During the week of February 25 through March 1, the inspector verified the effectiveness of Entergy's programs for processing, handling, storage, and transportation of radioactive material. The inspector used the requirements of 10 CFR Parts 20, 61, and 71, and 10 CFR Part 50, Appendix A, Criterion 63, "Monitoring Fuel and Waste Storage," and licensee procedures required by the TSs/Process Control Program as criteria for determining compliance.

a. Inspection Scope

Inspection Planning

The inspector reviewed the solid radioactive waste system description in the final safety analysis report (FSAR), the Process Control Program (PCP), and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed.

The inspector reviewed the scope of quality assurance (QA) audits performed for this area since the last inspection. The inspector reviewed the results of the audits performed since the last inspection of this program and evaluated the adequacy of Entergy's corrective actions for issues identified during those audits.

Radioactive Material Storage

The inspector inspected areas where containers of radioactive waste were stored, and verified that the containers were appropriately labeled in accordance with regulatory requirements.

The inspector verified that the radioactive materials storage areas were controlled and posted and radioactive materials were secured against unauthorized removal.

The inspector verified that Entergy had established a process for monitoring the impact of long-term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) sufficient to identify potential unmonitored, unplanned releases, or nonconformance with waste disposal requirements. The inspector verified that there were no signs of swelling, leakage, or deformation.

Radioactive Waste System Walkdown

The inspector walked down accessible portions of liquid and solid radioactive waste processing systems to verify and assess current system configuration and operation.

The inspector identified radioactive waste processing equipment that was not operational and/or was abandoned in place, and verified that Entergy had established administrative and/or physical controls to ensure that the equipment would not contribute to an unmonitored release path and/or affect operating systems or be a source of unnecessary personnel exposure. The inspector verified that Entergy had reviewed the safety significance of systems and equipment abandoned in place.

The inspector reviewed the adequacy of any changes made to the radioactive waste processing systems since the last inspection. The inspector verified that changes from what was described in the FSAR were reviewed and evaluated.

The inspector identified processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers. The inspector verified that the waste stream mixing, sampling procedures, and methodology for waste concentration averaging, provided representative samples of the waste product for the purposes of waste classification.

For those systems that provide tank recirculation, the inspector verified that the tank recirculation procedure provided sufficient mixing.

The inspector verified that Entergy's PCP correctly described the current methods and procedures for dewatering waste.

Waste Characterization and Classification

The inspector identified radioactive waste streams, and verified that Entergy's radiochemical sample analysis results were sufficient to support radioactive waste characterization requirements. The inspector verified that Entergy's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound and based on current radionuclide analyses.

For the waste streams identified above, the inspector verified that changes to plant operational parameters were taken into account to (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update, and (2) verified that waste shipments continued to meet waste classification requirements.

The inspector verified that Entergy had established and maintained an adequate QA program to ensure compliance with the waste classification and characterization requirements.

Shipment Preparation

The inspector reviewed the records of shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The inspector verified that the requirements of any applicable transport cask certificate of compliance had been met. The inspector verified that the receiving licensee was authorized to receive the shipment packages.

The inspector determined that the shippers were knowledgeable of the shipping regulations and that shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport. The inspector verified that the licensee's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

Shipping Records

The inspector identified non-excepted package shipment records and verified that the shipping documents indicate the proper shipper name; emergency response information and a 24-hour contact telephone number; accurate curie content and volume of material; and appropriate waste classification, transport index, and shipping identification number. The inspector verified that the shipment placarding was consistent with the information in the shipping documentation.

Identification and Resolution of Problems

The inspector verified that problems associated with radioactive waste processing, handling, storage, and transportation, were being identified by Entergy at an appropriate threshold, were properly characterized, and were properly addressed for resolution in the licensee CAP. The inspector verified the appropriateness of the corrective actions for a selected sample of problems documented by the licensee that involved radioactive waste processing, handling, storage, and transportation.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 – 3 samples)

Cornerstone: Initiating Events

a. Inspection Scope

The inspectors reviewed PI data to determine the accuracy and completeness of the reported data. The review was accomplished by comparing reported PI data to confirmatory plant records and data available in plant logs, CRs, Licensee Event Reports (LERs), and NRC Inspection Reports. The acceptance criteria used for the review was Nuclear Energy Institute 99-02, Revision 6, "Regulatory Assessment Performance Indicator Guidelines." The following PIs were reviewed.

- Unplanned SCRAMs per 7000 Critical Hours
- Unplanned SCRAMs with Complications
- Unplanned Power Changes per 7000 Critical Hours

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 – 1 sample)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by Inspection Procedure 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that Entergy entered issues into their CAP at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the CAP and periodically attended CR screening meetings.

b. Findings

No findings were identified.

.2 Annual Sample: Damage to Switchyard Equipment During the Loss of Offsite Power event on February 8, 2013

a. Inspection Scope

The inspectors performed an in-depth review of Entergy's failure analysis and corrective actions associated with CR-PNP-2013-00814 and CR-PNP-2013-0821 that documented damage to the T931 Start-up Transformer's 'B' phase post insulator and the Transmission Line 355 'C' phase capacitance coupled voltage transformer's (CCVT) carrier link and carrier accessory during the loss of offsite power event on February 8. While operating at 80 percent power, Pilgrim automatically scrambled following the loss of all three sources of offsite power during Winter Storm Nemo. Both emergency diesel generators started and provided power to the safety-related electrical buses.

During the storm, a flashover of the T931 Start-up Transformer's 'B' phase post insulator occurred that scorched the glazing of the insulator. The glazing is used to reject dirt and is not needed to prevent moisture from entering the insulator. Pilgrim's electrical design and electrical maintenance personnel performed a surface inspection of the insulator. They identified several discoloration spots and determined that only the glazing was damaged in these areas. There was also a small pit on one of the insulator sheds, but the size of the pit was minimal and did not reduce the insulator's electrical effectiveness. The inspectors performed a visual inspection of the T931 Start-up Transformer's 'B' phase post insulator and reviewed the associated engineering evaluation. The inspectors determined that Entergy's overall response to the issue was commensurate with the safety significance, was timely, and the actions taken and planned were reasonable to restore power to the T931 Start-up Transformer.

The Transmission Line 355 'C' phase CCVT's carrier link and carrier accessory were also damaged during the storm. There were black spots evident on the carrier link and the carrier accessory was severely damaged. Carrier links and carrier accessories are used to transmit and receive power line tele-protection signals from remote substations. The carrier link and carrier accessories are not required on the 'A' or 'C' phase of this transmission line. The 'C' phase CCVT is only used to develop voltage signals for metering and local protection. The damaged carrier link and carrier accessory were removed from the 'C' phase CCVT. Testing of the CCVT was performed prior to re-energizing the transmission line and this testing confirmed that the condition of the insulation was acceptable and the CCVT could provide accurate voltage signals. The inspectors performed a visual inspection of the Transmission Line 355 'C' phase CCVT as well as the damaged carrier link and carrier accessory and determined that Entergy's overall response to the issue was adequate to re-energize the transmission line.

The inspectors assessed Entergy's problem identification threshold, compensatory actions, and the prioritization and timeliness of corrective actions to determine whether Entergy was appropriately identifying, characterizing, and correcting problems associated with this issue. In addition, the inspector reviewed documentation associated with this issue, including condition and failure analysis reports, and interviewed engineering personnel to assess the effectiveness of the implemented corrective actions and the actions planned to complete full resolution of the issue.

b. Findings

No findings were identified.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153 – 10 samples)

.1 Reactor Scram Due to Trip of Both Recirculation Pumps

a. Inspection Scope

On January 10, Pilgrim was manually scrammed following the trip of both recirculation pumps. Operators responded to the plant scram and plant systems responded normally. The inspectors responded to the control room and reviewed the operator's response to the scram. The inspectors reviewed the circumstances of the scram, corrective actions, and the subsequent decision to start-up.

b. Findings

No findings were identified.

.2 Entergy Response to a Report of a Security Threat and Unusual Event Declaration

a. Inspection Scope

On January 12, multiple reports of gun shots fired were made to the Central Alarm Station by roving security officer patrols. Entergy investigated and implemented protective actions. The operations Shift Manager discussed the event with security personnel, declared an Unusual Event at 0950, and activated the Emergency Response Organization. At approximately 1050, local law enforcement officials determined that the gun fire came from duck hunters on a small watercraft near the plant site. At 1105, the emergency director terminated the Unusual Event. The inspectors responded to the offsite Emergency Operations Facility to assess the licensee actions and emergency action level declaration.

b. Findings

No findings were identified.

.3 Operator Response to SRV-3B Pilot Leakage

a. Inspection Scope

The inspectors observed a plant shutdown on January 20 after operators had identified significant leakage on the SRV-3B pilot valve. First stage pilot temperature indicated a temperature lower than 35 degrees F below its baseline temperature. This exceeded the limits in their station procedure and required the operations crew to declare SRV-3B inoperable. TS 3.6.D.2 was entered which requires that an orderly shutdown be initiated and the reactor coolant pressure shall be below 104 psig within 24 hours. Pilgrim shut down the plant to commence Forced Outage 19-6 and repair SRV-3B. The inspectors reviewed procedural guidance for station power changes and the power maneuver plan, and observed control room conduct and control of the evolution.

b. Findings

No findings were identified.

.4 Operator Response to SRV-3B Pilot Leakage

a. Inspection Scope

On February 3, operators responded to further indications of pilot leakage on SRV-3B following its repair during Forced Outage 19-6. First stage pilot temperature again indicated a temperature lower than 35 degrees F below its baseline temperature. Technical Specification 3.6.D.2 was subsequently entered which requires that with an inoperable SRV an orderly shutdown be initiated and the reactor coolant pressure shall be below 104 psig within 24 hours. Reactor power was lowered to 80% power at which time SRV-3B's first stage pilot temperature returned to its baseline temperature and remained steady. Following an engineering evaluation that had concluded that the valve had reseated, TS 3.6.D.2 was exited and Pilgrim remained at 80 percent power until a subsequent reactor scram on February 8 due to a load reject of the main generator. The inspectors reviewed procedural guidance for station power changes, Operational Decision Making Issue guidance on power maneuvers with Pilgrim's configuration, and the associated engineering evaluation. The inspectors also observed control room conduct and control of the evolution.

b. Findings

No findings were identified.

.5 Reactor Scram on Load Reject from Loss of 345KV Power Supply to Lines 342 and 355 and Declaration of a Notice of Unusual Event due to a Loss of All Offsite AC Power to Vital Buses for Greater than 15 Minutes

a. Inspection Scope

On February 8, operators responded to a reactor scram from 80% reactor power due to a load reject of the main generator. During a coastal winter storm, an electrical fault developed on Line 342 which was lost to the plant as an available offsite power supply. Subsequently, at 2118, the Line 355 power supply tripped and the reactor scrambled due to a main turbine trip initiated by a main generator load reject. At 2200, Entergy declared a Notice of Unusual Event considering the earlier loss of the shutdown transformer and unreliable Line 355 Performance. The combination of the unavailability of Line 342, Line 355, and the shutdown transformer, prompted Entergy to declare the Notice of Unusual Event under Emergency Action Level SU1.1 for a "loss of all offsite AC power to emergency buses for greater than 15 minutes". A 10 CFR 50.72 notification was made to the NRC. The inspectors responded to the site on February 9 to review reactor plant parameters and operator response to this event. Region 1 NRC personnel activated the Incident Response Center and entered the Monitoring Mode to follow Entergy's actions in response to this event. Entergy restored offsite power to both vital buses on February 10 and Region 1 NRC personnel exited the monitoring mode.

a. Findings

No findings were identified.

.6 Operator Response to Diesel Exhaust Fumes Entering the Reactor Building During Severe Weather and a Loss of Off-Site Power

a. Inspection Scope

The inspectors evaluated the adequacy of Entergy's event classification determination in response to accumulation of excessive diesel exhaust in the reactor building during the loss of offsite power event on February 9. Specifically, the emergency diesel generators were called upon to operate and as a result of the negative pressure in the reactor building and strong winds, an excessive accumulation of diesel exhaust gas built up inside the reactor building. The inspectors reviewed the Emergency Action Level HU3.1 and bases document for unusual events due to hazardous gas and escalation criteria to the alert level. In addition, the inspectors interviewed the shift manager who observed the conditions and was responsible for emergency declarations.

b. Findings

No findings were identified.

.7 Operator Response to Unanticipated SRV Indication During Event Recovery

a. Inspection Scope

The inspectors evaluated the adequacy of Entergy's post trip review to include an in-depth review associated with abnormal indication of the 'A' SRV. Specifically, during the event, Entergy was attempting to depressurize the reactor in order to establish shut down cooling entry condition. While attempting to lower pressure with the 'A' SRV, the control room failed to receive acoustic monitoring indications to show the valve successfully opened. Diverse tail pipe temperature indicated that the valve had opened. Entergy was successful in depressurizing with the 'C' and 'D' SRVs. The inspectors reviewed parameter plots, the post trip review report, operating procedures and interviewed operations personnel.

b. Findings

No findings were identified.

.8 Loss of Diesel Driven Instrument Air System Compressor (K-117) during Loss of Offsite Power Event

a. Inspection Scope

On February 11, operators responded to a failure of the diesel driven instrument air system compressor (K-117) during a time when no other air compressors were available to supply the instrument air system due to the loss of offsite power. The inspectors responded to the control room to assess the impact of the loss of the K-117 air compressor and operator response to the event. Entergy implemented the Loss of Instrument Air procedure, evaluated the impact of the loss of instrument air on plant components (e.g., spent fuel pool cooling was lost), and made preparations to install a portable compressor located onsite as part of the response to the Fukushima orders. The K-117 air compressor fuel was found contaminated, the fuel tank was emptied, cleaned, and refilled and the K-117 air compressor was restored on February 12.

b. Findings

No findings were identified.

.9 (Closed) Licensee Event Report (LER) 05000293/2012-003-00: Both Trains of Standby Gas Treatment (SGBT) System Inoperable

The inspectors reviewed Entergy's actions and reportability criteria associated with LER 05000293/2012-003-00, which is addressed in CR-PNP-2012-4884 and CR-PNP-2012-4887. On October 31, 2012, at 12:00 p.m., SGBT 'B' train was removed from service for corrective maintenance on an electric heating circuit over-current relay. At 14:41, the control room declared the 480 volt alternating current (VAC) B-15 electric bus inoperable following an engineering analysis that determined an overload condition existed on the bus. This condition, the engineering analysis, and the resultant finding are discussed in NRC Integrated Inspection Report 05000293/2012005, Section 1R15. Since the SGBT 'A' train is powered off the 480VAC B-15 electric bus, both SGBT trains were inoperable until immediate corrective actions reduced loading on the B-15 bus. This LER is closed.

.10 (Closed) LER 05000293/2011-007-01: Safety Relief Valve Declared Inoperable Due to Leakage

The inspectors reviewed Entergy's actions and reportability criteria associated with LER 05000293/2011-007-01, which is addressed in CR-PNP-2011-5870. On December 27, 2011, operators identified significant first-stage pilot leakage on Safety Relief Valve RV-203-3D. Pilgrim determined that the leakage exceeded limits in their station procedure, and shut down the plant. The pilot valve was replaced and the SRV repaired during the forced outage. This LER is closed.

4OA5 Other Activities

Institute of Nuclear Power Operations (INPO) Plant Assessment Report Review

a. Inspection Scope

The inspectors reviewed the report for the INPO plant assessment of the Pilgrim Nuclear Power Station completed in February 2013. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC perspectives of licensee performance and to verify if any significant safety issues were identified that required further NRC follow-up.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On March 1, the inspectors performed a radiation protection exit meeting and presented the results to Mr. Steven Brewer, Radiation Protection Manager, and other members of the PNPS staff. At the exit meeting, the inspectors confirmed that no proprietary information was provided to the inspectors.

On March 21, the inspectors performed a radiation protection exit meeting and presented the results to Mr. Robert Smith, Site Vice President, and other members of the PNPS staff. At the exit meeting, the inspectors confirmed that no proprietary information was provided to the inspectors.

On April 10, the inspectors presented the quarterly inspection results to Mr. Robert Smith, Site Vice President, and other members of the PNPS staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

On April 2, 2013, NRC Branch Chief Dr. Ronald Bellamy presented the results of the NRC's 2012 annual assessment of Millstone Power Station as detailed in their annual assessment letter (ML13060A340).

ATTACHMENT: SUPPLEMENTARY INFORMATION

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

B. Ahern	Electrical System Engineer
D. Berkland	Electrical Design Engineer
G. Blankenbiller	Chemistry Manager
G. Bradley	Component Engineer
S. Brewer	Radiation Protection Manager
D. Brugman	Supervisor ALARA/Technical Support
D. Burke	Security Manager
B. Chenard	System Engineering Manager
M. Christopher	Supervisor Radiological Operations
B. Clow	Radiation Protection Technician
S. Colburn	Supervisor Access Authorization and Fitness for Duty
H. Cordeiro	Senior Chemistry Technician
J. Cox	Supervisor Radiation Protection Operations
M. Dagnello	Superintendent FIN Team
J. Dent	General Manager Plant Operations
F. Dicristofaro	Work Week Manager
A. Dodds	Director Nuclear Safety Assurance
K. Drown	Nuclear Oversight Manager
J. Falconieri	Senior Lead Engineer
A. Felix	Auxiliary Operator
J. Fitzsimmons	Radiation Protection Supervisor
M. Gatslick	Security Compliance Supervisor
R. German	Reactor Operator
P. Gerry	Specialist Chemistry
M. Green	MOV Program Engineer
R. Hargat	Radiation Protection Technician
T. Hatch	I&C Superintendent
J. House	Superintendent Initial Operations Training
J. Hurley	Senior Health Physics/Chemistry Specialist
J. Keene	Electrical Systems Engineer
W. Lobo	Licensing Engineer
J. Lynch	Licensing Manager
J. Macdonald	Assistant Operations Shift Manager
V. Magnatta	Operations Training
D. Mannai	Senior Manager Nuclear Safety and Licensing
M. Mantenfel	Groundwater Protection Supervisor
W. Mauro	Supervisor Radiation Protection Support
M. McDonnell	Assistant Operations Support Manager
T. McElhinney	Training Manager
J. Miketa	Senior Radiation Protection Technician
A. Muse	Superintendent Operations Training
D. Noyes	Operations Manager
J. O'Donnell	Senior Engineer Systems Engineering
R. O'Neill	Control Room Supervisor

J. Priest	Manager Radiation Protection
J. Scheffer	Specialist, Effluent & Environmental Monitoring
R. Smith	Site Vice President
W. Smith	Supervisor Chemistry
J. Taormina	Maintenance Manager
M. Thornhill	Radiation Protection Supervisor
D. Twomey	Senior Radiation Protection Technician
J. Whalley	Operations Shift Manager
T. F. White	Design Engineering Manager
T. P. White	Emergency Planning Manager
J. Yingling	Senior Engineer Systems Engineering

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Closed

05000293/2011-007-01	LER	Safety Relief Valve Declared Inoperable Due to Leakage (section 4OA3)
05000293/2012-003-00	LER	Both Trains of Standby Gas Treatment System Inoperable (section 4OA3)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

2.1.37, Coastal Storm-Preparations and Actions, Revision 30
 2.1.42, Operation during Severe Weather, Revision 12
 5.2.2., High Winds (Hurricane), Revision 32
 8.C.40, Seasonal Weather Surveillance, Revision 26

Condition Reports

CR-PNP-2013-0495, 'B' EGD Plenum door missing door latch
 CR-PNP-2013-1009, Fire/Tornado door not latched properly
 CR-PNP-2013-1012, Blocking device installed on vital area door
 CR-PNP-2013-1054, Snow drifting into security diesel generator enclosure

Section 1R04: Equipment Alignment

Procedures

2.2.8, Standby AC Power System (Diesel Generators), Revision 102
 2.2.22, Reactor Core Isolation Cooling System (RCIC), Revision 72
 2.2.25, Fire Water Supply System, Revision 59
 8.C.13, Locked Component Lineup Surveillance, Revision 83
 2.2.19, Residual Heat Removal System, Revision 106

8.C.43, Monthly System Valve Lineup Surveillance, Revision 11

Condition Reports

CR-PNP-2013-1117, Various deficiencies identified during NRC tour of Reactor and Auxiliary Buildings

CR-PNP-2013-1357, Diesel fire pump suction gauge PI-4671, highest reading on compound pressure gauge is 30psig, the gauge is reading over range

CR-PNP-2013-1358, NRC noticed that 12-P-133 did not appear to be locked in position sufficiently

CR-PNP-2013-1360, Base of J-Box (J-1491) has broken away exposing the J-Box to water intrusion from the screen house floor

CR-PNP-2013-1363, ELU 82R has a cracked lens as identified by the NRC resident.

Miscellaneous

Pilgrim Online Work Week Schedule

Section 1R05: Fire Protection

Procedures

5.5.2, Special Fire Procedure, Revision 51

8.B.4.8, Attachment 3, Water Treatment & Auxiliary Room Functional Test, Revision 9

8.B.4.9, Attachment 2, Panel C223 Zone 3B RCIC Quad Functional Test, Revision 9

8.B.9.2, Wet and Dry Pipe Sprinklers Alarm Test- FSAR Related, Revision 8

EN-DC-161, Control of Combustibles, Revision 7

Condition Reports

CR-PNP-2013-1207, NRC questions regarding Damper VMG-2 in Vital MG set room

CR-PNP-2013-1264, A walkdown of the Emergency Light System identified that several Emergency Light Units are exhibiting signs of developing a brown spot / discolorization on the lenses

CR-PNP-2013-1529, NRC had observations following plant inspection

Miscellaneous

Fire Damper Assembly Surveillance Report for VMG-2 (Vital MG Set Room Damper) dated 3/12/2011

Fire Hazard Analysis

Section 1R11: Licensed Operator Regualification Program

Condition Reports

CR-PNP-2013-1403, NRC Senior Resident Inspector noticed the posted version of NRC Form 3, Notice to Employees, which encompasses: Standards for Protection Against Radiation (Part 20); Notices, Instructions and Reports to Workers, Inspections (Part 19); and Employee Protection to be out of date

Miscellaneous

Abnormal Operating Procedures

Emergency Operating Procedures

Licensed Operator Regualification Training (LORT) / NRC Simulator Exam Scenario

Section 1R12: Maintenance Effectiveness

Procedures

2.2.19.1, Residual Heat Removal System-Shutdown Cooling Mode of Operation, Revision 35
2.2.19.5, RHR Modes of Operation for Transients, Revision 23
2.2.30, Reactor Building Closed Cooling Water (RBCCW) System, Revision 75
2.2.93, Main Condenser Vacuum System, Revision 66
2.4.42, Loss of RBCCW, Revision 33
5.3.35.1, Transient Response Hardcards for Operating Crews, Revision 11
EN-DC-205, Maintenance Rule Monitoring, Revision 4
EN-DC-206, Maintenance Rule (a)(1) Process, Revision 2

Condition Reports

CR-PNP-2012-2015, B-14 feeder breaker tripped during a simulator scenario
CR-PNP-2012-4185, NRC questioned basis for Maintenance Rule Functional Failure for B-14 loading
CR-PNP-2012-4764, Incorrect classification of a repeat MRFF on CR-PNP-2012-4185
CR-PNP-2012-4884, Postulated trip of Breaker 52-103 and subsequent loss of B15 if 3 RBCCW pumps are started has been determined to be a functional failure
CR-PNP-2012-5492, CR-PNP-2012-4884 has been determined to be a maintenance rule functional failure. It is also a repeat functional failure
CR-PNP-2013-0269, Corrective Action Number 5, Functional Failure Evaluation for CR-PNP-2013-0323
CR-PNP-2013-0269, Tracking CR for functional failure reviews
CR-PNP-2013-0323, Secondary containment air lock door missing a seal
CR-PNP-2013-0398, Main Condenser Vacuum breaker AO-3707 is stuck closed

Miscellaneous

Functional Failure Determination for CR-PNP-2012-4884
Functional Failure Determination for CR-PNP-2013-0398
Maintenance Rule Basis Document for System 46E, 480VAC System
10 CFR 50.65 Expert Panel Meeting, February 1, 2013 Agenda
Maintenance Rule Basis Document for Systems 8 & 44, Offgas, Augmented Offgas, & Chilled Water

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

1.5.22, Risk Assessment Process, Revision 17
3.M.1-45, Outage Shutdown Risk Assessment, Revision 14
8.M.2-2.1.10, 4160 Volt Emergency Buses A5 and A6 Loss of Voltage and Degraded Voltage Relays, Revision 35
8.M.2-2.1.11, Emergency Buses A5 and A6 4.16 KV Startup Transformer Undervoltage and Degraded Voltage Relays, Revision 22
EN-WM-104, On Line Risk Assessment, Revision 7

Condition Report

CR-PNP-2013-0122, Basis for PRA risk assessment not documented
CR-PNP-2013-0451, During the performance of A5 bus inspection, pieces and parts of the A504 Breaker bus supports were loose

CR-PNP-2013-1268, EOOS trip risk was elevated to trip risk low after discussions with the NRC
CR-PNP-2013-1644, During the review of the February 8, 2013 Loss of Off-Site Power/
Full Load Reject Scram sequence of events, as part of the forced outage (FO)
critique, the escalation to RED risk did not occur until approximately 1930 hours which
was in excess of 22 hours after initiation of the event

Miscellaneous

Equipment Out of Service Quantitative Risk Assessment Tool
Shutdown Risk Assessment Review Check Lists
RHR System Training Drawing
Risk Assessment Review Checklist for Shutdown Risk during Forced Outages 19-5, 19-6, 19-7
Risk Profile for Week of 1/6/13
Risk Profile for Week of 1/20/13
Risk Profile for Week of 2/17/13
Risk Profile for Week of 2/24/13
Risk Profile for Week of 3/4/13

Section 1R15: Operability Determinations and Functionality Assessments

Procedures

2.2.23, Automatic Depressurization System, Revision 33
8.C.35, Diesel Powered Air Compressor Operability Test, Revision 28
EN-LI-100, Process Applicability Determination, Revision 11
EN-OP-104, Operability Determination Process, Revision 6
EN-OP-111, Operational Decision Making Issue (ODMI) Process, Revision 10

Condition Reports

CR-PNP-2013-0274, During the 900# drywell inspection, a small wisp of steam was observed
coming from RCIC 1301-90
CR-PNP-2013-0323, Secondary containment fan room door seal missing
CR-PNP-2013-0536, Several pilot temperature fluctuations were noted during power maneuver
CR-PNP-2013-0690, 1st Stage pilot temperature lowered to 410 degrees F on TE-6279B
CR-PNP-2013-0722, While implementing ODMI for SRV leakage, SRV-3B had to be declared
inoperable
CR-PNP-2013-0856, Loss of K-117 diesel driven air compressor
CR-PNP-2013-0884, Loss of K-117 diesel driven air compressor due to fuel oil contamination
and extent of condition review
CR-PNP-2013-0891, Visual analysis of K-117 diesel air compressor fuel oil indicates fuel oil is
contaminated
CR-PNP-2013-0915, While performing a temp lift of danger tags for K-117 air compressor, the
compressor auto started while in the main control room K-117 was in Pull to Lock

Work Order

Work Order (WO) 341705, K-117 Diesel Air Compressor tripped

Drawings

BECO No. M2D-4O-4, Alterrex Excitation System with Regulator, Revision 6
M2G16-8, Stator Water System Stator Winding Liquid Cooling Unit, Revision E2

Miscellaneous

Calculation C15.0.3381, Allowable Additional Secondary Containment Leakage Area and

Gaps at Secondary Containment Doors
FSAR, Table 4.4.1 Nuclear System Safety and Relief Valves
ODMI Implementation Action Plan: Generator Rectifier Bank #4 Leakage, Revision 0
ODMI Implementation Action Plan: Generator Rectifier Bank #4 Leakage, Revision 1
ODMI Implementation Action Plan: Generator Rectifier Bank #4 Leakage, Revision 2
ODMI Implementation Action Plan: SRV 1st Stage Pilot Leakage, Revision 0
Photographs of Rectifier Bank #4 Leakage
Safety Relief Valve 1st stage pilot temperature traces
PNPS Vendor Manual V-0462, Turbine Generator Vol. II-Generator
Dip Chart for Stator Water Cooling Tank
Cameron Hydraulic Data

Section 1R18: Plant Modifications

Procedures

EN-DC-136, Temporary Modifications, Revision 8
EN-DC-141, Design Inputs, Revision 12

Condition Reports

CR-PNP-2013-0844, Electrical load added to B17 prior to approved temporary modification evaluation issued
CR-PNP-2013-0863, Fuel pool cooling pump P-210A tripped on low level during loss of air compressor
CR-PNP-2013-0873, Procedure 3.M.3-36.4 prerequisites not satisfied prior to temporary power cable installation

Work Orders

WO 341531, Provide Temp Power to P-210A IAW 3.M.3-36.4
WO 341705, K-117 Diesel Air Compressor tripped

Drawing

SE 155 Sh.2, Station Electrical Single Line Composite Diagram 4.16KV + 480V AC Systems, Revision 73

Calculation

PS-239, ETAP AC Load Flow Calculation

Engineering Change

EC 42584, Use of MCC B17 to provide temporary power to spent fuel pool cooling pump P-210A or P-210B
EC 42611, Use of portable COPCO air compressor to provide back-up instrument air

Tag Outs

1C19-1-06-029-3.M.3-36.4, Temp Power IAW 3.M.3-36.4 Attachment 2
1C19-1-06-031-3.M.3-36.4, This rev places P-210A in service Temp Power IAW 3.M.3-36.4 Attachment 2
1C19-1-06-032-3.M.3-36.4, Temp Power IAW 3.M.3-36.4 Attachment 2
1C19-1-06-033-3.M.3-36.4, This rev places P-210A in service Temp Power IAW 3.M.3-36.4 Att 2
1C19-1-06-034-3.M.3-36.4, Temp Power IAW 3.M.3-36.4 Attachment 2
1C19-2-46K-002-F/P MOD, Fuel Pool Cooling Pump 'A' Temp Power Fed from B17, Verify

A5 Bus Voltage Prior to Using Either SBGT 'A' or SBLC Pump 'A'

Section 1R19: Post-Maintenance Testing

Procedures

2.2.23, Automatic Depressurization System, Revision 33
3.M.1-15, Attachment 2, Vibration Analysis, Revision 48
3.M.3-17.1, Raychem or Taping of 1000 Volt and Under Cables and/or Wires, Revision 26
3.M.4-6, Removal, Installation, Test, Disassembly, Inspection, and Reassembly of Main Steam Safety/Relief Valves- Critical Maintenance, Revision 61
3.M.4-14, Rotating Equipment Inspection Assembly and Disassembly, Revision 46
3.M.3-51, Electrical Termination Procedure, Revision 30
8.5.3.1, Reactor Building Closed Cooling Water System Quarterly and Biennial Comprehensive Operability, Revision 61
8.5.4.1, High Pressure Coolant Injection (HPCI) System Pump and Valve Quarterly and Biennial Comprehensive Operability, Revision 111
8.Q.3-4, 125/250 VDC Motor Control Center and Breaker Panel Testing and Maintenance, Revision 53
EN-LI-100, Process Applicability Determination, Revision 11
EN-MA-125, Troubleshooting Control of Maintenance Activities, Revision 12
EN-WM-107, Post Maintenance Testing, Revision 4

Condition Reports

CR-PNP-2013-0403, During SRV pilot valve removal, mechanical maintenance created a material non-conformance
CR-PNP-2013-0536, Several pilot temperature fluctuations were noted during power maneuver
CR-PNP-2013-0690, 1st Stage pilot temperature lowered to 410 degrees F on TE-6279B
CR-PNP-2013-0722, While implementing ODMI for SRV leakage, SRV-3B had to be declared inoperable
CR-PNP-2013-0814, Loss of offsite power due to a trip of ACB-102
CR-PNP-2013-0821, Arcing and sparking was witnessed on 345 kV Line 355 CCVT
CR-PNP-2013-1189, SRV-3B 1st Stage Pilot Temperature alarm received and cleared
CR-PNP-2013-1329, As found results for SRV pilot show potential bellows leak
CR-PNP-2013-1418, Incorrect revision of Electrical Termination Procedure used during HPCI maintenance
CR-PNP-2013-1584, NRC identified that PWT for replacement of the K111 Motor was not aligned with the guidelines provided in EN-WM-107
CR-PNP-2013-1811, QC hold point sign off was not in compliance with EN-HU-106
CR-PNP-2013-1831, Discrepancies were noted during review of WO 52303165-01 (work was performed on 1/23/13) with the NRC senior resident inspector

Maintenance Orders/Work Orders

WO 00327569 01, Replace Breaker 72-912
WO 00327569 02, Pre-Test New Breaker
WO 00327569 03, MO-2301-3, Electrical Termination Procedure
WO 00339473, Tasks 1, 3, 5 & 11, Received Alarm – Relief/Safety Valve Leaking for RV-203-3B
WO 00340846, Tasks 1-4, 6 & 7, Replace K-111 Motor
WO 52293079 02, Bench Calibrate Relay 23A-K15
WO 52293079 03, Post Maintenance Test Relay 23A-K15
WO 52293079 05, Install Temporary Modification for Relay 23A-K15

WO 52303165 01, Replace RBCCW Check Valve Internals
WO 52030165 02, Replace RBCCW Check Valve Internals Post Maintenance Test
WO 52454219 01, 8.M.2-2.5.6, Attachment 2, Perform HPCI CST Level Functional and Calibration Test
QC Inspection for Main Steam SRV ASME SA105 CS Body

Drawings

Switchyard Diagram from 3.M.3-40, Attachment 12
PNPS 345 kV Ring Bus from 1.4.4, Attachment 7, Revision 12
SDJ-500055-H, Resistance Graded Station Post, Revision 0

Miscellaneous

Bureau of Reclamation Facilities Instructions, Standards, & Techniques Volume 3-18, Replacing Glaze Burned Insulators
Doble Testing on 345 kV Line 355 CCVT both 2007 testing and 2013 testing
Event #235371, Dated 12/19/08, Automatic reactor scram and AP-913 high critical component failure due to failure of insulator in switchyard system circuit breaker ACB-105
FSAR, Table 4.4.1 Nuclear System Safety and Relief Valves
Safety Relief Valve 1st stage pilot temperature traces

Section 1R20: Refueling and Outage Activities

Procedures

1.3.37, Post-Trip Reviews, Revision 29
1.4.12, Primary Containment Entry, Revision 33
2.1.4, Approach to Critical and Plant Heatup, Revision 33
2.1.5, Controlled Shutdown from Power, Revision 114
2.1.7, Vessel Heat Up and Cool Down, Revision 54
2.2.19, Residual Heat Removal, Revision 105
2.2.19.1, Residual Heat Removal System Shutdown Cooling Mode of Operation, Revision 35
3.M.1-45, Outage Shutdown Risk Assessment, Revision 14
Temporary Procedure 10-002, RFO 19 Compensatory Measures, Revision 1

Condition Reports

CR-PNP-2013-0136, Due to the forced outage, seven maintenance personnel will exceed 26 hours worked in a 48 hours period. A fatigue assessment was performed per EN-OM-123
CR-PNP-2013-0138, No indication on torus temp recorder TRU-502201B
CR-PNP-2013-0140, Unable to obtain control rod scram time data from the GEPAC EVE computer
CR-PNP-2013-0141, RP Tech reported that there appears to be an active steam leak on the 37 foot elevation
CR-PNP-2013-0143, Hotwell conductivity reading of .081 microS/cm exceeds Condenser Seawater Leak ODMI Trigger Point #1 of .075 microS/cm
CR-PNP-2013-0152, During DW initial walkdown at approximately 250 psig a steam and water leak was discovered at 6-CK-58A Feedline 'A' Inboard Check Valve
CR-PNP-2013-0153, During initial drywell entry discovered Recirculation Pump 'A' discharge valve (MO-202-5A) had a 50-60 dpm packing leak
CR-PNP-2013-0154, During initial drywell entry discovered drip pan for VAC-206A overflowing significantly. Suspect drain line obstruction

CR-PNP-2013-0157, Received full Reactor Scram during the performance of surveillance

CR-PNP-2013-0161, During Drywell walkdown inspection the RBCCW cooling line to the Recirc Pump motor P-201A was noted to have a 30dpm leak

CR-PNP-2013-0162, During Drywell walkdown Junction Box J-213 was noted to have water spots on the top of the box cover

CR-PNP-2013-0163, While attempting to move the mode switch from Shutdown to Refuel for control rod exercising, the mode switch would not move

CR-PNP-2013-0179, During walkdown of HVAC in Drywell the following items were discovered: no air flow coming from air registers around the Recirculation pump; FME found in duct work; damper mostly closed on discharge of VAC-206B1+2

CR-PNP-2013-0188, Torus level is high at +0.7 inches from entering Shutdown Cooling. Primary containment is not required in Cold S/D mode with the Rx vessel vented

CR-PNP-2013-0191, Control room received Recirculation Pump A Seal Leakage Hi alarm C904RC-C6 as the reactor vessel depressurized following a recirculation pump trip at 100% reactor power and subsequent manual reactor scram

CR-PNP-2013-0193, While performing 8.M.1-3.1 Att 2, (APRM B functional) several unexpected results were observed

CR-PNP-2013-0195, During performance of 8.M.1-1.1 APRM E did not go Inop when 6 LPRM's were bypassed

CR-PNP-2013-0206, While performing piping repair to Recirculation Pump 'A' lower end oil cooler outlet RBCCW line, maintenance mechanics identified an apparent indication of the inlet line of the same cooler

CR-PNP-2013-0209, Control rod full stroke insertion test results performed IAW PNPS 9.39 indicate a Test Friction of 150.18 lbf

CR-PNP-2013-0211, While performing RBCCW piping repair for Recirculation Pump A, maintenance mechanics identified a leaking 3/4" union that communicates with the mechanical seal

CR-PNP-2013-0241, During 600 # drywell inspection being performed as a result of FO-19-5, a packing leak (4' steam plume) was identified on 4-HO-39

CR-PNP-2013-0245, At Condition Review Group today, a question was raised as to whether requests for working hour waivers during the current forced outage were being made in accordance with EN-OM-123, Fatigue Management Program

CR-PNP-2013-0247, Reactor recirculation pump P-201A motor vibration high alarm

CR-PNP-2013-0278, Control room received "Relief/Safety Valve Leaking" alarm

CR-PNP-2013-0814, Loss of offsite power due to a trip of ACB-102

CR-PNP-2013-0821, Arcing and sparking was witnessed on 345 kV Line 355 CCVT

CR-PNP-2013-0872, Operations did not meet the required 15 minute time requirement for the initial event notification

Miscellaneous

Compensatory Actions and Disabled Annunciator Logs

Control Room Logs

Emergent Issues Open Items Lists

Event Notice #48664, Pilgrim Reactor Scram on 01/10/2013

FSAR Definition of Operations with Potential to Drain the Reactor Vessel (OPDRV)

Forced Outage Schedule

Forced Outage Shift Turnover Sheets

Just In Time Training

Power Maneuver Plan Dated 01/11/2013

Power Maneuver Plan Dated 01/22/2013

Power Maneuver Plan Dated 02/14/2013

Reactor Plant Event Notification Worksheets dated 01/10/2013 and 01/11/2013
Reactor Scram Post Trip Report
PNPS Technical Specifications

Section 1R22: Surveillance Testing

Procedures

2.1.19, Suppression Chamber Temperatures, Revision 18
2.2.23, Automatic Depressurization System, Revision 33
3.M.3-47, Load Shed Relay Operational/Functional Test – Critical Maintenance
8.A.17, RCIC System Integrity Surveillance, Revision 16
8.3.3, Scram Discharge Instrument Volume Vent and Drain Valve Quarterly Operability, Revision 23
8.5.5.1, RCIC Pump Quarterly and Biennial Operability Flow Rate and Valve Test at Approximately 1000 PSIG, Revision 75
8.5.5.4, RCIC Motor-Operated Valve quarterly Operability Test, Revision 40
8.9.1, Emergency Diesel Generator and Associated Emergency Bus Surveillance, Revision 125
EN-LI-100, Process Applicability Determination-Perform Periodic Stroke Timing and Stem Lubrication on CV-302-22B, Revision 12
EN-OP-109, Drywell Leakage, Revision 2
EN-OP-111, Operational Decision Making Issue (ODMI) Process, Revision 10

Condition Reports

CR-PNP-2013-0558, During performance of 8.9.1, Fire Door 67 would not self close and latch when ventilation is in winter mode
CR-PNP-2013-0610, EDG 'A' Jacket Water Nitrite concentration values are less than control limits
CR-PNP-2013-0762, Inadequate direction in Procedure 3.M.3-47 to support testing
CR-PNP-2013-0768, Relay cover installation sequence issue
CR-PNP-2013-1193, MO-2301-05 per procedure 8.q.3-8.2 found approximately 50 VDC to ground on control circuit after tagout was in place
CR-PNP-2013-1218, Observed rising trends in Drywell Unidentified Leakage rate over a 48 hour period
CR-PNP-2013-1258, As-found stroke time test of CV-203-22B was outside of high limit
CR-PNP-2013-1326, During drywell equipment and drywell floor sump pump pump downs, operators received alarms for pump 'A' seal leakage high

Maintenance Orders/Work Orders

WO 00338402, Post-Maintenance Test to Perform 8.3.3 on SDIV Valve CV-302-22B
WO 52314619 01, 3.M.3-47, Attachment 3, Load Shed Relay Functional Test SAG 24A (SUT & A5)

Miscellaneous

Drywell Floor Sump Data Points for C-60 between 2/20/13 and 3/1/13
ODMI Action Plan for Increased Drywell Unidentified Leakage, Revision 4
ODMI Action Plan for Increased Drywell Unidentified Leakage, Revision 3
Total Drywell Sump Data Points for C-60 between 2/20/13 and 3/1/13
Stroke Time Data for CV-302-22B

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Miscellaneous

Emergency Plan, Revision 40

EP-IP-300, "Offsite Radiological Dose Assessment," Revision 9

EP-IP-400, "Protective Action Recommendations," Revision 16

Evacuation Time Estimate Study Update

Section 1EP6: Drill Evaluation

Miscellaneous

Abnormal Operating Procedure

Emergency Operating Procedures

Licensed Operator Requalification Training (LORT) / NRC Simulator Exam Scenario

Sections 2RS1 & 2RS2: Hazard Assessment / ALARA Planning & Controls

Procedures

EN-RP-101, Access Control for Radiologically Controlled Areas

EN-RP-105, Radiological Work Permits

EN-RP-108, Radiation Protection Posting

EN-RP-110-04, Radiation Protection Risk Assessment

EN-RP-122, Alpha Monitoring

EN-RP-131, Air Sampling

EN-RP-143, Source Control

EN-RP-204, Special Monitoring Requirements

PNP-RP-6.1-220, Radiological Controls for High Risk Evolutions

Condition Reports

CR-PNP-2013-0002 CR-PNP-2013-0716

CR-PNP-2013-0237 CR-PNP-2013-0743

CR-PNP-2013-0416 CR-PNP-2013-1048

CR-PNP-2013-0523 CR-PNP-2013-1283

CR-PNP-2013-0715 CR-PNP-2013-1575

Radiation Work Permits (RWP)

RWP 2013-065, Flushing a hot spot from the RWCU non-regenerative heat exchanger

RWP 2013-002, Radwaste Processing

RWP 2013-068, Scaffolding erection in various plant areas

RWP 2013-086, Outage Preparations on the turbine deck

RWP 2013-064, Thermix System Operations, Repairs, and Filter Changes

RWP 2013-481, Scaffolding installation in reactor building LHRAs

RWP 2013-501, Temporary shielding installation in the Drywell

RWP 2013-506, Remove and install safety relief valves

RWP 2013-539, Drywell Insulation Support

NUCLEAR OVERSIGHT Audit and Field Observations (O2C):

Functional Area Performance Assessment Report , August 18, 2012 – February 26, 2013

O2Cs Nos. 2013-0099, 0015, 0007, 0343, 0342, 0340, 0339, 0338, 0022

MISCELLANEOUS REPORTS:

Dose and Dose Rate Alarm Report for period 1/01/2013 through 3/18/2013
Dose Report for the Ten Highest Personnel Exposures for 2012
5-Year Dose Reduction Plan
ALARA Manager's Committee Meeting Minutes for meeting held on 2/26/2013, 2/25/2013,
1/08/2013, 12/11/2012, 12/10/2012, 12/03/2012
AMS-4 Weekly Operability Check Matrix

**Section 2RS8: Radioactive Solid Waste Processing and Radioactive Material Handling,
Storage, and Transportation**

Procedures

EN-RW-101, Radioactive Waste Management, Revision 3
EN-RW-102, Radioactive Shipping Procedure, Revision 10
EN-RW-103, Radioactive Waste Tracking Procedure, Revision 3
EN-RW-104, Scaling Factors, Revision 8
EN-RW-105, Process Control Program, Revision 2
EN-RW-106, Integrated Transportation Security Plan, Revision 2
EN-RW-108, Radioactive Shipment Accident Response, Revision 1

Condition Reports

CR-PNP-2011-01105	CR-PNP-2011-05494
CR-PNP-2011-01284	CR-PNP-2012-01209
CR-PNP-2011-01692	CR-PNP-2012-01556
CR-PNP-2011-02013	CR-PNP-2012-02361
CR-PNP-2011-03025	CR-PNP-2013-00039
CR-PNP-2011-04047	CR-PNP-2013-00040
CR-PNP-2011-04012	

Miscellaneous

GEL Laboratories LLC 10 CFR 50/61 Certificate of Analysis for: DAW; Bead Resin;
RWCU Sludge/Resin; R/W Mods
Lesson Plan P-LP-RPO-RAMSHIP, Rev 1, Shipping, Packaging and Receiving
Radioactive Material at PNPS
NUPIC Audit No. 23201, dated 11/20/12
Quality Assurance Audit Report QA-14/15-2011-PNP-1, September 12 – October 14, 2011
Quality Assurance Program Approval No. 0240, Rev 9, dated 1/27/05
Radioactive Material Shipments: 12-08; 12-09; 12-10; 12-11; 12-12
Snapshot Assessment, PNPLO-2013-0004, 2/8/2013

Section 4OA1: Performance Indicator Verification

Procedure

EN-LI-114, Performance Indicator Process, Revision 5

Miscellaneous

NRC Inspection Reports 4th Quarter 2011 through 4th Quarter 2012
NRC PI Web site
Pilgrim NRC Performance Indicator Data Sheets
Control Room Logs and Reactor Power Data Sheets

Section 4OA2: Problem Identification and Resolution

Procedures

3.M.3-9, Main Generator or Main Transformer Flexible Connectors Removal
and Restoration/Main and Unit Auxiliary Transformer Back Cutting, Revision 34

Condition Reports

CR-PNP-2013-0814, Loss of offsite power due to a trip of ACB-102
CR-PNP-2013-0821, Line 355kV 'C' Phase CCBT arcing and sparking
CR-PNP-2013-0900, Excessive moisture inside panel door inside terminal house JB1

Drawing

E1, Sht. 1, Station Single Line Diagram, Revision 22

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

Procedures

1.3.37, Post Trip Reviews, Revision 29
2.1.37, Coastal Storm – Preparation and Actions, Revision 30
2.1.42, Operations During Severe Weather, Revision 12
2.2.23, Automatic Depressurization System, Revision 33
5.3.8, Loss of Instrument Air, Revision 346.5-344, Calibration and Operation of the iTX Multi-
Gas Monitor, Revision 9
EP-AD-601, Emergency Action Level Bases Document, Attachment 9.2, Revision 0

Condition Reports

CR-PNP-2013-0118, During the UE, PAP had difficulty closing doors
CR-PNP-2013-0187, Pilgrim declared a UE for security considerations
CR-PNP-2013-0189, Notification to Duxbury Police could not be verified using emergency
response equipment
CR-PNP-2013-0536, Several pilot temperature fluctuations were noted during power maneuver
CR-PNP-2013-0690, 1st Stage pilot temperature lowered to 410 degrees F on TE-6279B
CR-PNP-2013-0798, Severe Weather LOOP
CR-PNP-2013-0814, Loss of offsite power due to a trip of ACB-102
CR-PNP-2013-0821, Arcing and sparking was witnessed on 345 kV Line 355 CCBT
CR-PNP-2013-0825, 'A' SRV Did Not Register Open
CR-PNP-2013-0856, Loss of K-117 diesel driven air compressor
CR-PNP-2013-0872, Operations did not meet the required 15 minute time requirement for the
initial event notification
CR-PNP-2013-0883, During walkdown, found two breakers tripped in panel P44 in the Security
Diesel enclosure
CR-PNP-2013-0884, Loss of K-117 diesel driven air compressor due to fuel oil contamination
and extent of condition review
CR-PNP-2013-0924, Accumulation of Diesel Fumes in the Reactor Building

Miscellaneous

10 CFR 50.72, Notification dated 2/3/13 for inoperable safety relief valve RV-203-3B
10 CFR 50.72, Immediate Notification Requirements for Operating Nuclear Power Reactors
Entergy Press Release on Security Incident
Event Notification 4866 dated 01/12/2013, Unusual Event Declared due to Potential Security
Event

Event Notification 48739 dates 02/10/2013, Loss of Offsite Power and Press Release
 FSAR, Table 4.4.1 Nuclear System Safety and Relief Valves
 iTX Multi-Gas Monitor Instruction Manual, Revision 9
 NUREG 1022, Event Reporting Guidelines 10 CFR 50.72 and 50.73, Revision 2
 ODMI Implementation Action Plan: SRV 1st Stage Pilot Leakage, Revision 0
 Pilgrim Emergency Action Level Tables
 Pilgrim Press Release dated 01/10/2013
 PNPS Control Room Logs February 8 – 10, 2013
 Power Manuever Plan dated 2/3/13 to return to 100% following SRV pilot leakage
 Power Manuever Plan dated 2/13/13 following forced outage from LOOP event
 Preliminary Notification of Event or Unusual Occurrence – PNO-I-13-001, Unusual Event
 Declared Due to Loss of Offsite Power during Winter Storm Nemo
 Preliminary Notification of Event or Unusual Occurrence – PNO-I-13-001A, Update- Unusual
 Event Declared Due to Loss of Offsite Power during Winter Storm Nemo
 Reactor Plant Event Notification Worksheet dated 01/12/2013
 Reactor Scram Event Notification dated 01/10/2013
 Safety Relief Valve 1st stage pilot temperature traces

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
ALARA	as low as is reasonably achievable
CAM	continuous air monitor
CAP	corrective action program
CFR	Code of Federal Regulations
CR	condition report
CCVT	capacitance coupled voltage transformer
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
FSAR	final safety analysis report
HRA	high radiation area
KV	kilovolt
LER	licensee event report
LHRA	locked high radiation area
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records System
PCP	Process Control Program
PI	performance indicator
PNPS	Pilgrim Nuclear Power Station
QA	quality assurance
RHR	residual heat removal
RWCU	reactor water cleanup
RWP	radiation work permit
SRV	safety relief valve
SSC	structures, systems and components
TS	technical specifications
UFSAR	updated final safety analysis report
VAC	volts alternating current
VHRA	very high radiation area
WO	work order