April 15, 2005

Mr. Michael Balduzzi
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, Massachusetts 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000293/2005006

Dear Mr. Balduzzi:

On March 3, 2005, the NRC completed a team inspection at your Pilgrim Nuclear Power Station. The enclosed inspection report presents the results of that inspection, which were discussed with Mr. Peter Dietrich and your staff on March 3, 2005.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, the team concluded that in general, problems were properly identified, evaluated, and corrected. The team identified one finding of very low safety significance (Green). This finding was associated with untimely corrective action regarding the February 13, 2005, recurrence of an inoperable condition on the high pressure coolant injection (HPCI) system due to a faulty fuse, similar to a February 2004 incident. This finding was determined to be a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this non-cited violation, you should provide a response with the basis for your denial within 30 days of the date of this inspection report to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC Resident Inspector at the Pilgrim Nuclear Power Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

If you have any questions, please contact me at (610) 337-5046.

Sincerely,

/RA by Joseph G. Schoppy Acting for/

Marvin D. Sykes, Chief
Performance Evaluation Branch
Division of Reactor Safety

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

Enclosure: Inspection Report 05000293/2005006
w/Attachment: Supplemental Information

cc w/encl:
G. J. Taylor, Chief Executive Officer, Entergy Operations
M. Kansler, President, Entergy Nuclear Operations, Inc.
J. T. Herron, Senior Vice President and Chief Operating Officer
S. J. Bethay, Director, Nuclear Assessment
O. Limpias, Vice President, Engineering
B. O'Grady, Vice President, Operations Support
J. F. McCann, Director, Nuclear Safety Assurance
C. D. Faison, Manager, Licensing
M. J. Colomb, Director of Oversight, Entergy Nuclear Operations, Inc.
D. Tarantino, Nuclear Information Manager
B. S. Ford, Manager, Licensing, Entergy Nuclear Operations, Inc.
J. M. Fulton, Assistant General Counsel, Entergy Nuclear Operations, Inc.
S. Lousteau, Treasury Department, Entergy Services, Inc.
R. Walker, Department of Public Health, Commonwealth of Massachusetts
The Honorable Therese Murray
The Honorable Vincent deMacedo
Chairman, Plymouth Board of Selectmen
Chairman, Duxbury Board of Selectmen
Chairman, Nuclear Matters Committee
Plymouth Civil Defense Director
D. O'Connor, Massachusetts Secretary of Energy Resources
J. Miller, Senior Issues Manager
Office of the Commissioner, Massachusetts Department of Environmental Protection
Office of the Attorney General, Commonwealth of Massachusetts
Electric Power Division, Commonwealth of Massachusetts
R. Shadis, New England Coalition Staff
D. Katz, Citizens Awareness Network
Chairman, Citizens Urging Responsible Energy
J. Sniezek, PWR SRC Consultant
R. Toole, PWR SRC Consultant
C. McCombs, Acting Director, MEMA and Commonwealth of Massachusettts, SLO Designee
Commonwealth of Massachusetts, Secretary of Public Safety

Distribution w/encl: **(VIA E-MAIL)**
S. Collins, RA
J. Wiggins, DRA
S. Lee, RI EDO Coordinator
C. Anderson, DRP
D. Florek, DRP
P. Krohn, DRP
B. Norris, DRP
J. Boska, PM, NRR
R. Ennis, NRR
W. Raymond, DRP, Senior Resident Inspector
C. Welch, DRP, Resident Inspector
A. Ford, DRP, Resident OA
Region I Docket Room (with concurrences)
ROPreports@nrc.gov
W. Lanning, DRS
M. Skyes, DRS
G. Meyer, DRS

DOCUMENT NAME: E:\Filenet\ML051050210.wpd

SISP Review Complete: GWM (Reviewer's Initials)
After declaring this document "An Official Agency Record" it **will** be released to the Public.
To receive a copy of this document, indicate in the box: **"C"** = Copy without attachment/enclosure **"E"** = Copy with attachment/enclosure **"N"** = No copy

OFFICE	RI/DRS		RI/DRS/SRA		RI/DRP		RI/DRS			
NAME	GMeyer (GWM)		WSchmidt (WLS)		CAnderson (CJA)		MSykes (JGS for)			
DATE	04/14/05		04/13/05		04/14/05		04/15/05			

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-293
License No:	DPR-35
Report No:	05000293/2005006
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Pilgrim Nuclear Power Station
Location:	600 Rocky Hill Road Plymouth, MA 02360
Dates:	February 14 - March 3, 2005
Inspectors:	G. Meyer, DRS, Senior Reactor Inspector (Team Leader) M. Davis, DRS, Reactor Inspector B. Sienel, DRP, Resident Inspector (Vermont Yankee) J. Talieri, DRS, Reactor Inspector
Approved by:	Marvin D. Sykes, Chief Performance Evaluation Branch Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000293/2005006; 02/14/2005 - 03/03/2005; Pilgrim Nuclear Power Station; biennial baseline inspection of the identification and resolution of problems; problem identification and resolution.

This team inspection was performed by three regional inspectors and a resident inspector from another site. One finding of very low safety significance (Green) was identified during this inspection and was classified as a non-cited violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process (SDP)." Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Identification and Resolution of Problems

The team determined that Entergy was generally effective at identifying problems and placing them in the corrective action program (CAP). Once entered into the system, these items were screened and prioritized in a timely manner using established criteria, and they were properly evaluated commensurate with their safety significance. Overall, the evaluations reasonably identified the causes of the problem, assessed the extent of condition, and developed appropriate corrective actions. Corrective actions were typically implemented in a timely manner, but the team found that in one case, corrective actions were not timely and did not prevent recurrence; this resulted in a finding. The team found that Entergy's self-assessments and audits were self-critical and consistent with the team's observations.

A. NRC Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. Entergy's corrective actions were untimely, in that faulty Bussmann fuses which had caused an inoperable condition on HPCI in February 2004 were not replaced and caused another unplanned HPCI inoperable condition in February 2005. Entergy did not take timely action to establish the extent of affected fuses, determine priorities for replacement, and replace the faulty fuses. The team determined that this represented a self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI of very low safety significance (Green). This finding was associated with the cross-cutting area of problem identification and resolution (PI&R).

This finding was more than minor, because it is associated with the equipment performance attribute of the Mitigating System Cornerstone and adversely affected the cornerstone objective of assuring the availability and reliability of systems that respond to initiating events. The finding was determined to be of very low safety significance based on a Phase 3 SDP determination. (Section 4OA2.c)

B. Licensee-Identified Violations

None.

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The team reviewed the procedures describing the CAP at Entergy's Pilgrim Nuclear Power Station. Entergy identifies problems by initiating condition reports (CRs) for conditions adverse to quality, plant equipment deficiencies, industrial or radiological safety concerns, or other significant issues. Condition reports are subsequently screened for operability, categorized by significance level (A through D), and assigned to personnel for evaluation and resolution.

The team reviewed items selected across the seven cornerstones of safety in the NRC's Reactor Oversight Program to determine if problems were being properly identified, characterized, and entered into the CAP for evaluation and resolution. The team selected items from the maintenance, operations, engineering, emergency planning, security, radiological control, and oversight programs to ensure that Entergy was appropriately considering problems identified in each. The team considered risk insights from Entergy's probabilistic risk assessment (PRA) to focus the sample selection and system walkdowns on risk-significant components. The team used this information to select a risk-informed sample of CRs that had been issued since the last NRC PI&R inspection, which was completed in January 2003.

The team reviewed a sample of Entergy's audits and self-assessments, including an audit of the CAP. This review was performed to determine if problems identified through these evaluations were entered into the CAP, and whether the corrective actions were properly completed to resolve the deficiencies. The effectiveness of the audits and self-assessments was evaluated by comparing audit and self-assessment results against self-revealing and NRC-identified findings.

Based on a review of NRC and Entergy risk analyses, the team selected five high risk-significance systems (residual heat removal (RHR), reactor building closed cooling water (RBCCW), 4 kVAC, 480 VAC, and HPCI) to focus the review of corrective action processes. For the selected risk-significant systems, the team reviewed a sample of applicable system health reports, work requests, engineering documents, plant log entries, and results from surveillance tests and maintenance tasks. For these selected systems, the team also interviewed cognizant station personnel and completed system walkdowns to assess material condition and system performance.

In addition, the team interviewed plant staff and management to determine their understanding of and involvement with the CAP. The specific documents reviewed and referenced during the inspection are listed in the attachment to this report.

(2) Observations and Findings

No findings of significance were identified.

The team concluded that the station was generally effective at problem identification. Entergy staff generally had adequate knowledge of the CAP, and identified problems and entered them into the program at an appropriate threshold. There were few deficiencies identified by the team that had not been previously identified by Entergy. Station staff promptly initiated CRs, as appropriate, in response to deficiencies or issues raised by the inspection team.

The team found that self-assessments and audits were self-critical and generally consistent with the team's observations, and that identified issues were appropriately addressed in the CAP.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed the CRs listed in the attachment to this report to assess whether Entergy adequately prioritized and evaluated problems. The team selected the CRs in areas to cover the seven cornerstones of safety in the NRC's Reactor Oversight Program. The team also considered risk insights from Entergy's PRA to focus the inspection sample in general with emphasis on the five selected risk-significant systems. The reviews included the appropriateness of the assigned significance level, the timeliness of problem resolution, and the scope and depth of the causal analysis. For significant conditions adverse to quality, the team reviewed Entergy's assessment of the extent of condition and the determination of corrective actions to preclude recurrence. A portion of the items chosen for review was expanded to five years. The team observed Condition Review Group (CRG) meetings, in which Entergy managers reviewed incoming CRs and evaluated preliminary corrective action assignments, analyses, and plans.

In addition, the team selected a sample of CRs written to address previous NRC NCVs to determine whether Entergy evaluated and resolved these problems. The team reviewed Entergy's evaluation of industry operating experience information for applicability to Pilgrim. For applicable CRs, the team reviewed Entergy's assessment of equipment operability and reportability requirements.

(2) Observations and Findings

No findings of significance were identified.

The team concluded that Entergy generally screened and evaluated problems at the correct significance level. The staff was generally effective at classifying and performing operability evaluations and reportability determinations for discrepant conditions. Additionally, the team determined that the CRG was effective in reviewing and prioritizing CRs, and evaluating causal analyses at a plant management level.

The team reviewed several root cause evaluations and found that they were generally adequate. In most cases, the evaluations were thorough and corrective actions would be reasonably expected to prevent recurrence.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed the corrective actions associated with selected CRs to determine whether the actions addressed the identified causes of the problems. The team reviewed CRs for repetitive problems to determine whether previous corrective actions were effective. The team also reviewed Entergy's timeliness in implementing corrective actions and their effectiveness in precluding recurrence of significant conditions adverse to quality. Furthermore, the team assessed the backlog of corrective actions to determine if any, individually or collectively, represented an increased risk due to delays in implementation. The team also reviewed NCVs issued since the last inspection of Entergy's CAP to determine if issues placed in the program had been properly evaluated and corrected. The team also attended the February 15 and 17 Corrective Action Review Board meetings.

(2) Observations and Findings

Overall, the team concluded that Entergy developed and implemented corrective actions that were appropriate and effective. Based on the sample reviewed, the team determined that corrective actions were completed in a timely manner. Nonetheless, the team determined that in one instance corrective actions for a previous event did not prevent recurrence, because they were not effectively implemented or timely.

Introduction. Entergy's corrective actions were untimely, in that faulty fuses which had caused an inoperable condition on HPCI in February 2004 were not replaced and caused another HPCI inoperable condition in February 2005. The team determined that this represented a self-revealing NCV of 10 CFR 50, Appendix B, Criterion XVI of very low safety significance (Green). Specifically, in response to a February 2004 spurious failure of a Bussmann fuse, Entergy did not take timely action to establish the extent of affected fuses, determine priorities for replacement, and replace the faulty Bussmann fuses. As a result, when another Bussmann fuse failed in the control power circuit for the HPCI injection valve, the HPCI system was inoperable on February 13, 2005.

Description. On February 26, 2004, a control power fuse on the HPCI gland seal condensate pump spuriously blew and made the HPCI system inoperable until the fuse was replaced. Entergy found that the fuse had lost continuity due to the detachment of a cold-solder connection between the fusible link and the end cap. NRC determined that Entergy had performed an ineffective review of previous industry-wide information on such fuse failures and issued a Green NCV (NCV 05000293/2004004-001) for the failure to identify and replace the faulty fuses.

Following the 2004 fuse failure, Entergy began addressing the susceptible Bussmann fuses still installed in the plant, including identifying the location of the susceptible fuses, classifying each identified fuse according to safety significance and whether or not the fuse failure would be apparent, and planning the fuse replacements systematically according to that classification scheme. Entergy changed relevant maintenance procedures to ensure examination and replacement of susceptible fuses would be performed during scheduled system outage windows.

At the time of the fuse failure on the HPCI injection valve in February 2005, Entergy had identified all susceptible fuses, but had not yet completed the classification, and had not begun a systematic replacement of the fuses. Entergy had completed the procedure changes to replace fuses, but without the systematic approach in place, there was no way to ensure safety-related systems would receive prompt attention to correct the problem.

After the February 2005 event, Entergy completed the classification process, issued work orders for the highest priority fuses, and began to schedule fuse replacement work for the upcoming spring outage.

Analysis. The performance deficiency is that Entergy did not take timely corrective actions after the February 2004 HPCI event identified a condition adverse to quality. As a result, HPCI experienced another inoperable condition in February 2005 due to an identical failure in a Bussmann fuse - this time in the control power circuit for the HPCI injection valve.

The finding is more than minor, because it is associated with the equipment performance attribute of the Mitigating System cornerstone and adversely affected the cornerstone objective. Entergy did not take prompt action to classify and replace faulty Bussmann fuses which resulted in the HPCI system being inoperable on February 13, 2005.

The team evaluated the issue using the SDP Phase 1 Screening Worksheet for the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstones provided in IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." This finding affected the Mitigating Systems cornerstone and resulted in the loss of the safety function of the HPCI system. Therefore, this finding required a Phase 2 evaluation.

In accordance with IMC 0609, Appendix A, Attachment 1, "User Guidance for Significance Determination of Reactor Inspection Findings for At-Power Situations," the senior reactor analyst evaluated the finding using the Risk-Informed Inspection Notebook for Pilgrim Station, Revision 1. The analyst made the following assumptions:

- The HPCI system was not functional upon failure of the injection valve control power fuse and the would not have responded upon demand.

- While the fuse was failed, the HPCI system could not have been recovered prior to postulated core damage because of the following:

  - No direct indication existed that the fuse had failed (only that a control power failure had occurred).
  - Test equipment would have been required to determine that the fuse had failed.
  - A replacement fuse would not have been immediately available to the operators.

- The HPCI system was unavailable for a maximum of 13 hours. This was considered the maximum time the system could have been unavailable without the control room operators' knowledge. This includes one operating shift plus operator turnover time. Consequently, the Phase 2 exposure time used to select the initiating event likelihood in Table 1 of the Risk-Informed Inspection Notebook was "< 3 days."

For a finding involving degradation of the HPCI system, Table 2 of the Risk-Informed Inspection Notebook requires all of the Phase 2 SDP worksheets be evaluated except for large a loss of coolant accident and loss of the B 125 vdc bus. All core damage sequences involving HPCI system operation were evaluated. The most significant core damage sequence involved a transient with loss of the power conversion system followed by failure of the operators to manually depressurize the reactor with safety relief valves. Using the counting rule worksheet, this finding was estimated to be White for internal initiators.

Given the that the finding was potentially greater than Green in significance, the analyst performed a Phase 3 SDP analysis for internal initiators using the Standardized Plant Analysis Risk (SPAR) model for Pilgrim Station, Revision 3.11. The same assumptions were used as described above for the Phase 2 analysis, with the exception that an actual HPCI exposure time of 13 hours was used in the SPAR model simulation. The

analyst performed a condition assessment using the Pilgrim Station SPAR model with Basic Event HCI-MOV-CC-HPCI, "HPCI Injection Valve Fails to Open," set to "TRUE." This adequately modeled the as found condition.

When evaluated over the exposure time of 13 hours, the incremental conditional core damage probability (the change in core damage frequency over the exposure time) associated with this finding was 2.4E-9. Similar to the Phase 2 SDP Worksheet result, the most significant core damage sequence involved a loss of main feedwater event with loss of the power conversion system and operator failure to manually depressurize the reactor.

The analyst concluded the SPAR model result was a reasonable estimation of the risk associated with this finding. The Phase 2 SDP Notebook result was conservative because the initiating event likelihood used was based on exposure time of 0.01 year (87.6 hours) and the SPAR model analysis used the actual maximum exposure time of 13 hours. The analyst also determined that an evaluation of risk resulting from external initiators or risk from a large early release frequency perspective was not required. This was because the result of the Phase 3 internal event significance estimation was less than 1E-7. Therefore, this was a finding of very low safety significance (Green).

This finding is cross cutting in the area of PI&R, because Entergy did not take prompt action to correct a significant condition adverse to quality.

Enforcement. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that significant conditions adverse to quality be promptly identified and corrected. Entergy procedure ENN-LI-102, "Corrective Action Process" specifies that conditions adverse to quality be reviewed and evaluated, and that corrective actions be taken to preclude repetition. Contrary to the above, following the identification that failed control power Bussmann fuses had affected components in the HPCI system in February 2004 and in earlier instances, Entergy did not take prompt action to correct the problem and HPCI was again inoperable in February 2005.

Because the finding is of very low safety significance and has been entered into Entergy's CAP (CR 200500517), this violation is being treated as a Non-Cited Violation (NCV), consistent with Section VI.A of the NRC Enforcement Policy. **(NCV 0500293/2005006-001, Untimely Corrective Action for Bussmann Fuses)**

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The team interviewed various plant personnel to develop a general perspective of the safety-conscious work environment (SCWE), including whether employees were reluctant to raise safety concerns. Additionally, the team reviewed Entergy's Employee Concerns Program (ECP) to evaluate if employees were aware of the program and had used it to raise concerns.

(2) Observations and Findings

No findings of significance were identified.

The team determined that individuals were aware of the importance of nuclear safety, stated a willingness to raise safety issues, had not experienced retaliation in any prior issues raised, and had an adequate knowledge of the CAP and ECP. Based on these limited interviews, the team concluded that there was no evidence of an unacceptable SCWE. Also, the team noted that the ECP had demonstrated effective involvement in raising and addressing concerns, including some regarding significant operational and support activities.

4OA6 Meetings, including Exit

The team presented the inspection results to Mr. Peter Dietrich and members of the Entergy staff on March 3, 2005. No proprietary information was retained by the team.

ATTACHMENT: SUPPLEMENTAL INFORMATION

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

S. Beneduci	I&C Superintendent
D. Burke	Security Supervisor
G. Choquette	RBCCW System Engineer
W. Corbo	Mechanical Superintendent
D. Detterman	Chemistry Supervisor
P. Dietrich	General Manager, Pilgrim
F. Famulari	Mechanical Maintenance Corrective Actions Coordinator
B. Ford	Licensing Manager
S. Hudson	Maintenance Rule Coordinator
D. Landeche	Corrective Action and Assessment Manager
W. Lobo	Licensing Engineer
F. Marcussen	Security Manager
J. Martin	Electrical System Engineer
F. Mulcahy	HPCI System Engineer
D. Noyes	Asst. Operations Manager - Operations Support
E. Olson	Operations Manager
D. Perry	Radiation Protection Manager
D. Rydman	RHR System Engineer
N. Santiago	Employee Concerns Coordinator
T. Sowdon	Emergency Planning Superintendent
T. Trask	System Engineering Manager
J. Tucker	FIN Team Supervisor

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000293/2005006-01	NCV	Untimely Corrective Action for Bussmann Fuses. (Section 4OA2.c)

LIST OF DOCUMENTS REVIEWED

Procedures

EN-LI-102	Corrective Action Process, Revision 1
EN-LI-111	Operational Decision-making Issue (ODMI) Process, Revision 2
EN-LI-118	Root Cause Analysis Process, Revision 0
EN-OE-100	Operating Experience Program, Revision 1
EN-WM-100	Work Request (WR) Generation, Screening, and Classifications, Revision 0
ENN-DC-121	Maintenance Rule, Revision 2
ENN-OP-104	Operability Determinations, Revision 2
1.3.34.4	Compensatory Measures, Rev. 1
1.3.121.3	Supplemental Guidance for Implementing the PNPS Corrective Action Program, Rev. 1
1.4.5	Tagging Procedure, Rev. 66
2.1.1	Startup from Shutdown, Rev. 137
2.1.4	Approach to Critical, Rev. 20
2.1.26	Inventory of Alternate Shutdown and EOP Support Tools and Materials, Rev. 25
2.1.41	Torus Water Cleanup by Processing Through Radwaste, Rev. 4
2.2.19	Residual Heat Removal, Rev. 84
2.2.19.1	RHR System - Shutdown Cooling Mode of Operation, Rev. 11
2.2.21	High Pressure Coolant Injection System, Rev. 65
2.2.87.3	Control Rod Drive Venting, Timing, and Adjustment, Rev. 11
2.2.87.3	Control Rod Drive Venting, Timing, Flushing, and Adjustment, Rev. 19
2.2.90	Rod Worth Minimizer, Rev. 22
5.3.35	Operations Management Emergency and Transient Response Expectations for Operating Crews, Rev. 6
8.5.2.2.2	LPCI System Loop B Operability - Pump Quarterly and Biennial (Comprehensive) Flow Rate Tests and Valve Tests, Rev. 28
8.5.3.1	RBCCW System Quarterly Operability, Rev. 39
8.5.3.18	RBCCW System Biennial Comprehensive Operability, Rev. 5
8.5.4.1	HPCI System Pump and Valve Quarterly Operability, Revs. 72 and 75
8.5.4.3	HPCI Operability Demonstration and Flow Rate Test at 150 PSIG, Rev. 39
8.5.4.12	Manual Start of the HPCI Turbine for Maintenance Activities, Rev. 6
8.5.5.1	RCIC Pump Quarterly and Biennial Operability Flow Rate and Valve Test at Approximately 1000 PSIG, Rev. 55
3.M.1-34	Generic Troubleshooting and Maintenance Procedure, Revision 25
3.M.4-79	HPCI Turbine Preventive Maintenance Inspection, Revision 6
3.M.4-81	HPCI Stop Valve Balance Chamber Adjustment, Revision 8
3.M.4-84	HPCI turbine Mechanical-Hydraulic Overspeed Trip Inspection, Revision 4
8.M.2-2.10.3-3	RHR Shutdown Cooling Valve Interlock Test, Rev. 7
8.M.2-2.10.5	HPCI Auto-Isolation System Logic, Rev. 22
8.5.4.1	HPCI System Pump and Valve Quarterly Operability, Revision 75
8.E.23	HPCI System Instrumentation Calibration, Revision 47
8.Q.3-3	480V AC Motor Control Center Testing and Maintenance, Revision 42.

Audits and Self-Assessments

QA-03-2004-PNP-01	Corrective Action Program
QA-02-2004-PNP-01	Chemistry
QA-07-2004-PNP-01	Emergency Preparedness Program
QA-03-08	AC Power System
PNP-LO-2003-37	Management Ownership of Corrective Actions
PNP-LO-2003-44	Emergency Preparedness NRC Performance Indicators
PNP-LO-2003-50	Periodic Assessment of the Maintenance Rule
PNP-LO-2003-63	Human Performance Tool Usage in Maintenance
PNP-LO-2003-85	Emergent Work / Work Prioritization Process
PNP-LO-2003-87	Temporary Alteration Process
PNP-LO-2003-92	Radiation Protection - Human Performance
PNP-LO-2003-96	Radiation Protection
PNP-LO-2004-07	Operations Attention to Detail
PNP-LO-2004-20	Radiological Surveys and Documentation
PNP-LO-2004-33	Effectiveness of Corrective Actions for Operations Training AFIs
PNP-LO-2004-36	Mechanical Maintenance Training Programs
PNP-LO-2004-45	QA Organization Effectiveness
PNP-LO-2004-61	Security Work Hour Controls

Pilgrim Cross-Functional Corporate Assessment Report, March 18, 2004
Pilgrim Operations Self-Assessment Report, August 8, 2003
Pilgrim Forced Outage Assessment, April 15, 2003

Condition Reports (CR-PNP-XXX, unless noted)

2002-0222	2003-1517	2003-3258	2004-0047	2004-1049
2002-10792	2003-1663	2003-3302	2004-0168	2004-1107
2002-10824	2003-1695	2003-3304	2004-0189	2004-1138
2002-11406	2003-1788	2003-3305	2004-0358	2004-1270
2002-11421	2003-1790	2003-3321	2004-0374	2004-1301
2002-12035	2003-2137	2003-3324	2004-0420	2004-1303
2002-12251	2003-2145	2003-3507	2004-0422	2004-1488
2002-12550	2003-2159	2003-3530	2004-0501	2004-1489
2002-12573	2003-2356	2003-3546	2004-0623	2004-1619
2002-13003	2003-2716	2003-3594	2004-0624	2004-1670
2003-0071	2003-2721	2003-3597	2004-0705	2004-1684
2003-0113	2003-2729	2003-3601	2004-0706	2004-1754
2003-0133	2003-2792	2003-3827	2004-0733	2004-1907
2003-0398	2003-2805	2003-3831	2004-0742	2004-1941
2003-0651	2003-2859	2003-3957	2004-0781	2004-2158
2003-0698	2003-2860	2003-4008	2004-0799	2004-2198
2003-0735	2003-2895	2003-4159	2004-0812	2004-2279
2003-0737	2003-2931	2003-4366	2004-0818	2004-2327
2003-0940	2003-3035	2003-4387	2004-0821	2004-2377
2003-1012	2003-3044	2003-4424	2004-0868	2004-2395
2003-1507	2003-3045	2003-4493	2004-0980	2004-2397

2004-2429	2004-2973	2004-3744	2005-0065	2005-0347
2004-2497	2004-3131	2004-3752	2005-0105	2005-0354
2004-2571	2004-3137	2004-3820	2005-0149	2005-0435
2004-2722	2004-3245	2004-3832	2005-0183	2005-0517
2004-2788	2004-3265	2004-3834	2005-0235	2005-0526
2004-2792	2004-3495	2004-3868	2005-0240	2005-0582
2004-2862	2004-3505	2004-3916	2005-0243	2005-0643
2004-2918	2004-3595	2004-3952	2005-0321	2005-0655
2004-2971	2004-3708	2005-0059	2005-0322	

NRC Non-Cited Violations

0500293/2003003-001	0500293/2003006-002	0500293/2004005-001
0500293/2003004-001	0500293/2003006-003	0500293/2004008-001
0500293/2003004-002	0500293/2003011-001	0500293/2004008-002
0500293/2003005-001	0500293/2003011-003	
0500293/2003006-001	0500293/2004004-001	

Operating Experience Documents

IN 1987-62	Mechanical Failure of Indicating-Type Fuses
IN 1999-14	Unanticipated Reactor Water Draindown at Quad Cities Unit 2, Arkansas Nuclear One Unit 2, and FitzPatrick
IN 2000-01	Operational Issues Identified in Boiling Water Reactor Trip and Transient
IN 2002-05	Foreign Material in Standby Liquid Control Storage Tanks
IN 2002-14	Ensuring a Capability to Evacuate Individuals, Including Members of the Public, From the Owner-Controlled Area
IN 2004-05	Spent Fuel Pool Leakage to Onsite Groundwater

Maintenance Requests

04100608	04101805	04114728
04101801	04102939	

Engineering Requests

04113073	04113316	04118395

System Health Reports

4Q 2004 HPCI
4Q 2004 RHR
4Q 2004 RBCCW

Miscellaneous

Operations Standards
Operations Human Performance Action Plan
Maintenance Rule SSC Basis Document - RBCCW System (30a), Rev. 1
Simulator Discrepancy Report DRA3-020, “A” RHR min flow valve logic
ODMI Implementation Plan, Fuel Defect, January 18, 2005

LIST OF ACRONYMS

ADAMS	Agencywide Document Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
CRG	Condition Review Group
ECP	Employee Concerns Program
HPCI	High Pressure Coolant Injection
IMC	Inspection Manual Chapter
IN	Information Notice
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PARS	Publically Available Records
PI&R	Problem Identification and Resolution
PRA	Probabilistic Risk Assessment
RBCCW	Reactor Building Closed Cooling Water
RHR	Residual Heat Removal
SCWE	Safety-Conscious Work Environment
SDP	Significance Determination Process
SPAR	Standardized Plant Analysis Risk