

July 17, 2001

Mr. Robert M. Bellamy
Site Vice President
Entergy Nuclear Generation Company
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, Massachusetts 02360-5599

SUBJECT: PILGRIM STATION - NRC INSPECTION REPORT NO. 05000293/2001-010

Dear Mr. Bellamy:

On June 29, 2001, the NRC completed an inspection at your Pilgrim Nuclear Power Station. The enclosed report presents the results of that inspection. The results were discussed with Mr. C. Dugger and other members of your staff in a telephone conference on July 3, 2001.

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 with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The team concluded that in general, problems were properly identified and resolved within the corrective action process. However, the team found two examples where problems were not entered into the corrective action process until identified by the team. The issues were minor and none of the systems involved was degraded. Corrective actions were generally adequate and completed in a timely manner. Comprehensive and broader corrective actions were developed to address recurring problems.

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Sincerely,

/RA/

Wayne Lanning, Director
Division of Reactor Safety

Docket No: 05000293
License No: DPR-35

Enclosure: Inspection Report 05000293/2001-010

cc w/encl:

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The Honorable Vincent DiMacedo

Chairman, Plymouth Board of Selectmen

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 05000293

License No: DPR-35

Report No: 05000293/2001-010

Licensee: Entergy Nuclear Generation Company

Facility: Pilgrim Nuclear Power Station

Location: 600 Rocky Hill Road
Plymouth, MA 02360

Dates: June 11, 2001 through June 29, 2001

Inspectors: J. Yerokun, Senior Reactor Engineer
R. Arrighi, Resident Inspector
M. Gray, Reactor Engineer
K. Kolaczyk, Reactor Engineer

Approved By: David C. Lew, Chief
Performance Evaluation Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000293-01-10; on 06/11/01-06/15/01 and 06/25/01-06/29/01; Entergy Nuclear Generating Company - Pilgrim Nuclear Power Station, annual baseline inspection of the identification and resolution of problems.

The inspection was conducted by two regional inspectors and a resident inspector. This inspection identified no significant findings. The significance of issues is indicated by their color (green, white, yellow, red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

Identification and Resolution of Problems

The team concluded that the implementation of the corrective action program at Pilgrim Nuclear Power Station was acceptable. The Pilgrim Staff adequately identified problems and entered them into a corrective action process. However, the team identified two examples involving minor issues where the licensee had not initiated problem reports (PR) in a timely manner. In one instance, the counterweights for the backdraft damper for the RHR room cooler ducts were not aligned in the same direction. In the other instance, the scale indicators on the RCIC turbine back-pressure indicators did not correspond to the actual switch setpoints. None of the systems involved was degraded and there was no safety consequence. The evaluations and root cause analysis reviewed were adequate and reflected good consideration for common cause and extent of condition. Corrective actions were generally adequate and completed in a timely manner. Where there were instances of recurrent problems, such as with the radiation monitoring system over the past couple of years, and the control rod drive system, the licensee had appropriately developed more comprehensive and broader corrective actions to address the problems.

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems (71152)

.1 Effectiveness of Problem Identification

a. Inspection Scope

The team reviewed items selected from various licensee's processes and activities to determine if the licensee was properly characterizing and entering problems into the corrective action process for evaluation and resolution. The team's review included: control room logs, control room deficiencies, caution tag outs, temporary modifications, system status reports, engineering service requests (ESR), work request tags (WRTs) and maintenance requests (MRs), emergency preparedness (EP) item tracking system, Quality Assurance (QA) audits and self-assessment results, and the minutes of the operations review committee and nuclear safety review and audit committee meetings. The team also performed plant walk-downs and conducted interviews with plant personnel to determine if risk significant problems were appropriately entered into the corrective action process for evaluation and resolution.

In preparation for the inspection, the team reviewed the documents listed in attachment 1 of this report that are used for implementing the corrective action program at Pilgrim Nuclear Power Station.

b. Findings

No findings of significance were identified during this inspection. The problem reporting process was the licensee's primary process for identifying and resolving problems. Issues were entered into this process as problem reports (PR). However, there were other processes, such as work request tags, engineering service requests, EP item tracking system and non-conformance reports that represented an element of the licensee's corrective action program for addressing issues. The team found that problems and issues were promptly identified and entered into a licensee process.

PRs were generated for issues identified through the other processes that met the threshold for PRs. However, the team identified two instances where the licensee did not initiate PRs. In one instance, the backdraft damper counterweights in the ducts for the RHR room cooler fans, VAC-204C and VAC-204D, were not aligned in the same direction. The licensee could not identify any documentation to validate the reason for the counterweights mismatch, but did ascertain that the dampers were operating properly. PR 01.9601 was generated to address this discrepancy. In the other instance, the scale indicators on RCIC turbine back pressure indicators, PS-1360-26A and 26B, did not correspond to the actual switch setpoints. The licensee verified, from review of records and the vendor manual, that the switches were set properly and that the scale indicator did not impact the switch function. PR 01.3100 was generated to address this issue. The issues were determined to be minor, none of the systems involved was degraded, and there was no safety consequence. The licensee also

generated PR 01.3131, "Instances where PRs were not written in a timely manner," to address, in a broader manner, the issue of plant staff not generating PRs when required.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The team reviewed items selected from the licensee's corrective action process to determine whether the issues were properly evaluated and resolved. The review included the appropriateness of the assigned significance, the timeliness of resolutions, and the scope and depth of the root cause evaluations (or apparent cause evaluation). The sample included those designated as significant condition adverse to quality (SCAQ) and covered the seven cornerstones. The team screened several PRs in the licensee's corrective action process and selected those listed in attachment 1 of this report for detailed review.

b. Findings

No findings of significance were identified during this inspection. The PRs reviewed had the appropriate significance assigned. The licensee had completed adequate root cause evaluations for the SCAQ PRs reviewed. The evaluations and root causes reviewed reflected proper consideration for common cause and extent of condition.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The team reviewed selected PRs listed to determine the effectiveness of the corrective actions specified or implemented, whether the actions were commensurate with the problems, and whether the actions were implemented or scheduled to be implemented in a timely fashion. The team also reviewed the backlog of corrective actions to determine if there were any items that individually or collectively represented an adverse effect on plant risk significance or an adverse trend in the implementation of the corrective action program. The PRs reviewed for this purpose included those addressing Licensee Event Reports and previous NRC non-cited violations and are listed in attachment 1 of this report.

b. Findings

No findings of significance were identified during this inspection. The prescribed corrective actions for the PRs reviewed appeared appropriate to correct the problems. In instances where problems were recurring the licensee had appropriately developed more comprehensive and broader corrective actions to address the problems. For example, the licensee developed PR 00.3000 to address recurring problems with the control rod drive system. The system had been allowed to degrade over time to the point that it was severely challenging the operators. The licensee also developed PR 00.2663 to address the radiation monitoring system issues. There had been various process radiation monitor equipment problems in the past couple of years.

The backlog of corrective actions appeared to be appropriately managed. The team did not identify any items in the backlog reviewed that represented an adverse effect on plant risk.

.4 Assessment of Safety-Conscious Work Environment

a. Inspection Scope

The team reviewed the licensee's Safety Conscious Work Environment Program implementation and interviewed plant personnel to determine if personnel were hesitant to identify safety issues.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

.1 Exit Meeting Summary

On July 3, 2001, the NRC team presented the inspection results to Mr. C. Dugger and other members of the Pilgrim Nuclear Power Station during a telephone conference call. The licensee acknowledged the inspection results. No information examined during the inspection was considered to be proprietary.

ATTACHMENT 1

KEY POINTS OF CONTACT

Pilgrim Nuclear Power Station

E. Almeida, Design Control Manager
 S. Brennon, Regulatory and Industry Relations Superintendent
 C. Dugger, Vice President Operations, General Manager, Plant Operations
 V. Fallacara, Operations manager
 J. Keys, Corrective Actions Superintendent
 W. Lobo, Regulatory Compliance Engineer
 K. Mulligan, Maintenance Manager
 E. Olson, Operations Superintendent
 W. Perks, Technical Services Manager
 W. Riggs, Director, Nuclear Assessment
 R. Sheridan, Quality Assurance Superintendent
 C. Wend, Radiation Protection Manager

LIST OF ACRONYMS USED

| | |
|-------|--|
| CFR | Code of Federal Regulations |
| EDG | Emergency Diesel Generator |
| EOP | Emergency Operating Procedure |
| EP | Emergency Preparedness |
| ESR | Engineering Service Request |
| EQ | Environmental Qualification |
| HPCI | High Pressure Coolant Injection |
| HX | Heat Exchanger |
| LER | Licensee Event Report |
| MR | Maintenance Request |
| NCV | Non-cited Violation |
| NRC | Nuclear Regulatory Commission |
| P&ID | Piping and Instrument Drawing |
| PR | Problem Report |
| RBCCW | Reactor Building Closed Cooling Water System |
| RCIC | Reactor Core Isolation Cooling |
| RHR | Residual Heat Removal |
| RP | Radiological Protection |
| QA | Quality Assurance |
| SCAQ | Significant Condition Adverse to Quality |
| SDP | Significance Determination Process |
| SSW | Salt Service Water |
| VDC | Volts, DC |
| WRT | Work Request Tag |

PARTIAL LIST OF DOCUMENTS REVIEWED

Procedures

1.3.122, Corrective Action Program, Revision 10
 1.3.121.1, Corrective Action Program Trend Analysis and Reporting, Revision 1
 1.3.121.2, Operating Experience Program, Revision 0
 1.3.34.5, Operability Evaluations, Revision 1
 1.5.9, Temporary Modifications, Revision 31
 1.5.20, Work Control Process, Revision 19
 8.E.11, Standby Liquid Control System Instrument Calibration, Revision 20
 8.E.13, RCIC System Instruments Calibration, Revision 31
 8.9.1.1, Diesel Oil Transfer System Pump and Valve Quarterly Operability, Revision 10
 2.1.12.1, Emergency Diesel Generator Daily Surveillance, Revision 37
 EP-AD-120, Emergency Preparedness Item Tracking System, Revision 4
 NE 15.01, Disposition of Nonconformance Reports, Revision 22
 NE 16.01, Evaluation of Defects and Noncompliance, Revision 13
 NOP93A2, Nuclear Safety Concerns Program (NSCP), Revision ?
 NOP90A4, Self Assessment Program, Revision 6
 NA2.03, Self Assessment Program, Revision 5

Problem Reports (PR)

| | | | |
|------------|------------|------------|------------|
| PR 01.0690 | PR 01.0908 | PR 01.9004 | PR 01.9329 |
| PR 00.1376 | PR 00.1534 | PR 00.1653 | PR 00.1801 |
| PR 00.1825 | PR 00.1836 | PR 00.2174 | PR 00.2454 |
| PR 00.2588 | PR 00.2663 | PR 00.2916 | PR 00.2988 |
| PR 00.3000 | PR 00.3298 | PR 00.3464 | PR 00.3479 |
| PR 00.3611 | PR 00.3624 | PR 00.9182 | PR 00.9184 |
| PR 00.9221 | PR 00.9226 | PR 00.9267 | PR 00.9274 |
| PR 00.9288 | PR 00.9347 | PR 00.9350 | PR 00.9394 |
| PR 00.9404 | PR 00.9497 | PR 00.9494 | PR 00.9503 |
| PR 00.9673 | PR 99.9549 | | |

Maintenance Requests (MR) and Work Request Tags (WRT)

| | | | |
|-------------|-------------|-------------|-------------|
| MR 00012851 | MR 00015321 | MR 10002001 | MR 10002002 |
| MR 19900596 | MR 19902386 | MR 10002002 | MR E0000004 |
| MR E0000005 | MR 01111371 | MR E9700028 | MR 01108091 |
| MR 01105262 | MR 10001273 | MR 01106879 | MR 19600136 |
| WRT 057875 | WRT 057894 | WRT 069676 | |

Non-cited Violations (NCV)

NCV 2000009- 01, Free-standing liquids in waste package (PR 00.1376)
 NCV 2000011- 01, 125V Swing Bus Automatic Transfer Switch (PR 00.0908, 00.9004)
 NCV 2000011- 02, Sticking Y-10 Relay (PR 00.9497)
 NCV 2000011- 03, Locked High Radiation Area (PR 00.2916)
 NCV 2000012- 01, HPCI Surveillance Test Acceptance Criteria (PR 00.3464)
 NCV 2000012- 02, Battery Test Acceptance Criteria (PR 00.9503)
 NCV 2000012- 03, Battery Service Data (PR 00.9494)

NCV 2000012- 04, QA Records for Battery Test (PR 00.9503)

NCV 2000012-05, Degraded HPCI Speed Controller (PR 00.3298, 00.3382, 00.9121)

Licensee Event Reports

LER 2000-001-00, Special Nuclear Material Misplaced and Subsequently Located

LER 2000-002-00, HPCI Power Supply Inverter

LER 2000-003-00, 125 VDC Swing Bus Automatic Transfer Switch Degraded Performance

LER 2001-001-00, Swing Bus B6 Potentially Inoperable under Certain Conditions

Engineering Service Requests

ESR 96-011

ESR 99-024

ESR 00-006

ESR 00-028

ESR 01-019

ESR 01-020

Quality Assurance Audits and Self-Assessments

Audit Report 00-10, Corrective Action Program

QA Surveillance 01-005, Problem Report Screening

QA Surveillance 01-011, Timeliness of Root Cause Analysis

QA Surveillance 01-017, Pre-outage review of Temporary Modifications

QA Surveillance 01-019, Timeliness of Root Cause Analysis

QA Surveillance 01-020, Tracking and closure of operability evaluations

QA Oversight Program Review 00-03, Emergency Preparedness Program

QA Oversight Program Review 00-04, Radiation protection Program

RP 01-04, Self-Assessment and Corrective Action, 4th Quarter 2000 Review (Q-3), 3/18/01

Emergency Preparedness Combined Functional Drill Report 01-01 (Feb 13, 2001)

Emergency Preparedness Activation Drill Report 00-05 (Sept 19, 2000)

Emergency Preparedness Annual Exercise Report 00-04 (Nov 28, 2000)

Emergency Planning First Half 2000 Group Self-Assessment (7/31/2000)

MP00-24, Follow-up Assessment of Work Control Process, November 16, 2000

MP00-26, "Third Quarter Self Assessment," November 1, 2000

Monthly Security Lighting Self-Assessment - November 2000

Pilgrim Station Vital Areas, dated 10/4/00

Pilgrim Protected Area Lighting, dated 11/30/00