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.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

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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- J. Alexander, Director, Nuclear Assessment Group
- D. Tarantino, Nuclear Information Manager
- S. Brennion, Regulatory Affairs Department Manager
- J. Fulton, Assistant General Counsel
- R. Hallisey, Department of Public Health, Commonwealth of Massachusetts

The Honorable Therese Murray

The Honorable Vincent DiMacedo

Chairman, Plymouth Board of Selectmen

Chairman, Duxbury Board of Selectmen

Chairman, Nuclear Matters Committee

Plymouth Civil Defense Director

- P. Gromer, Massachusetts Secretary of Energy Resources
- J. Miller, Senior Issues Manager

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Office of the Attorney General, Commonwealth of Massachusetts

Chairman, Citizens Urging Responsible Energy

S. McGrail, Director, Commonwealth of Massachusetts, SLO Designee

Electric Power Division

- J. Perlov, Secretary of Public Safety for the Commonwealth of Massachusetts
- R. Shadis, New England Coalition Staff

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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

Approved By: David C. Lew, Chief

Performance Evaluation Branch Division of Reactor Safety

R. Arrighi, Resident Inspector M. Gray, Reactor Engineer K. Kolaczyk, Reactor Engineer

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 <u>Identification and Resolution of Problems</u> (71152)

.1 Effectiveness of Problem Identification

a. <u>Inspection Scope</u>

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. <u>Inspection Scope</u>

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. <u>Findings</u>

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. <u>Inspection Scope</u>

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 license 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. <u>Inspection Scope</u>

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. Brennion, 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