July 20, 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 50-293/01-04

Dear Mr. Bellamy:

On June 30, 2001, the NRC completed an inspection at your Pilgrim reactor facility. The enclosed report documents the inspection findings which were discussed on June 28, 2001, with Mr. C. Dugger and other members of your staff.

This inspection was an examination of 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 of significance were identified.

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Sincerely,

/RA/

Curtis J. Cowgill, Chief
Projects Branch 6
Division of Reactor Projects

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

Enclosure: Inspection Report 50-293/01-04
Attachment: Supplemental Information

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
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The Honorable Vincent deMacedo
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Chairman, Duxbury Board of Selectmen
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-293
License No:	DPR-35
Report No:	50-293/01-04
Licensee:	Entergy Nuclear Generation Company
Facility:	Pilgrim Nuclear Power Station
Location:	600 Rocky Hill Road Plymouth, MA 02360
Inspection Period:	May 18, 2001, through June 30, 2001
Inspectors:	D. Dempsey, Acting Senior Resident Inspector R. Arrighi, Resident Inspector
Approved By:	Curtis J. Cowgill, Chief Projects Branch 6 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000293-01-04; on 05/18 - 06/30-2001; Entergy Nuclear Generation Company; Pilgrim Nuclear Power Station, Resident Inspector Report.

The inspection was conducted by resident inspectors. The inspection identified no significant findings. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 “Significance Determination Process” (SDP) . 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. Findings for which the SDP does not apply are indicated by “No Color” or by the severity level of the applicable violation.

A. Inspector Identified Findings

None

B. Licensee Identified Findings

None

TABLE OF CONTENTS

Report Details

SUMMARY OF PLANT STATUS

Pilgrim Nuclear Power Station began the period with the main generator off-line and the reactor being shutdown for a scheduled refueling outage. Following the outage, on May 19, 2001, the unit was placed on-line and 100 percent power was achieved on May 25. On June 20, operators reduced power to 26 percent due to the loss of extraction steam to the "B" first point feedwater heater. The extraction steam line automatically isolated due to a faulty micro-switch for the feedwater heater level indicator. The licensee repaired the level indicator and the unit was returned to 100 percent power on June 21. Power subsequently was reduced to 28 percent to repair a leak in the second point "A" startup heater vent line. On June 23, at 92 percent power, the licensee identified water on the high pressure coolant injection (HPCI) room floor due to overflow of the reactor building sump. The overflow was caused by leaking condensate demineralizer valves. The licensee entered procedure Emergency Operating Procedure 4, "Secondary Containment Control," isolated the "C" condensate demineralizer, and reduced power to 72 percent. After isolating the leak, the unit was returned to 100 percent power.

1. REACTOR SAFETY
(Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity)

1R04 Equipment Alignment

a. Inspection Scope

The inspector performed partial walkdowns of the “B” train reactor protection system power supplies, the automatic depressurization system, and the low pressure coolant injection system. The walkdowns included accessible portions of the systems and verification of remote operating status lights, and were conducted using the valve, breaker, and instrument checklists contained in the applicable operating procedures. The inspector confirmed that the systems were aligned properly to support normal and emergency plant operations. The procedures used for the walkdowns were:

- 2.2.79 “Reactor Protection System”
- 2.2.23 “Automatic Depressurization System”
- 2.2.19 “Residual Heat Removal (Low Pressure Coolant)”

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspector reviewed the implementation of the maintenance rule (10 CFR 50.65) as it pertained to the following:

- Proper classification of system level failures for the augmented off-gas (AOG) system during the previous operating cycle. The AOG system was designated as an (a)(1) system due to degraded efficiency of the charcoal adsorber beds. The reduced efficiency was due to moisture retained in the charcoal and main condenser air in-leakage. The inspector reviewed the licensee's corrective action plan and verified that the specified corrective maintenance and system modifications were implemented during the year 2001 refueling outage. The following problem reports also were reviewed: 99.9689 (Steam Jet Air Ejector (SJAE) radiation monitor flow erratic), 00.1548 (Post-treatment radiation monitor spiking), 99.9477 (Water in off gas system), 01.9529 (Water in off gas system), 01.9579 (AOG Pre-treatment Radiation Monitor, RM-1705-3A/B, reading downscale)

- Proper classification of an equipment failure for the failure of the "B" standby gas treatment system as documented in problem report 01.9055. The inspector also verified that the unavailability associated with this failure was properly captured.

- Proper classification of equipment failures for the control room high efficiency air filtration system (CRHEAFS) during the previous 24 months. The CRHEAFS is designated as an (a)(1) system due to multiple failures of the humidity switches. Problem reports reviewed included 01.9082 (CRHEAFS failure to provide positive pressure to the control room).

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspector reviewed four on-line maintenance activities (listed below), including three emergent work items, to evaluate the licensee's risk assessment process. The inspector reviewed the work plans and packages against the criteria contained in procedures 1.5.21, "Integrated Scheduling Activities and Guidelines," and 1.5.22, "Risk Assessment Process." The inspection included a review of the risk assessments and contingencies that were established, and verification that the effect on plant risk and protected equipment was discussed during briefings and shift turnovers.

- planned calibration of reactor protection system electrical protection assemblies and preventive maintenance on the "A" train motor generator set on June 8, 2001

- traversing in-core probe fission chamber replacement on June 8, 2001
- reactor core isolation cooling (RCIC) system vacuum breaker repair on May 18, 2001
- emergent corrective maintenance on the augmented off gas system on June 14-17, 2001

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspector reviewed the following operability evaluations to verify that continued operability was justified adequately. The Pilgrim Updated Final Analysis Report, technical specifications, and procedure 1.3.34.5, "Operability Evaluations," were used as references to assess the adequacy of the evaluations. The inspector also reviewed associated engineering evaluations, problem reports, design calculations, and test data that supported the licensee's determinations of equipment operability. Planned corrective actions and schedules were verified to be acceptable.

- OE O1-033 "A" & "B" emergency diesel generator turbo-assist air controller not functioning properly
- OE 01-034 RCIC steamline isolation valve, MO-1301-17, body-to-bonnet seal area steam leak (PR 01.9514)
- OE 01-035 Procedure 8.7.1.2 contains non-conservative acceptance criteria (PR 01.9563)
- OE 01-036 Cable Spreading Room halon panel receiving intermittent solenoid short alarms (PR 01.9584)

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspector reviewed and/or observed portions of the following post-maintenance tests to ensure that the test activities were adequate to verify operability and functional capability of the component or system following maintenance:

- MR 01110271 to repair a mechanical flange leak on the high pressure coolant injection turbine exhaust line
- MR 01110273 to repair a degraded reactor core isolation cooling turbine exhaust line vacuum breaker
- MR P9900955 for reactor protection system electrical protection assembly maintenance

- MR 10000344 to repair a packing leak on recirculation system sample containment isolation valve, AO-220-45
- MR P9401336 for preventive maintenance on the reactor core isolation cooling system alternate shutdown panel inverter
- MR P9402854 for preventive maintenance on the high pressure coolant injection system alternate shutdown panel inverter

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspector observed and reviewed selected reactor physics test results during the startup from the calendar year 2001 refueling outage to verify that technical specification requirements were met and that core operating limit parameters were consistent with the core design. The following test procedures were reviewed:

- 9.16.2 "Subcritical Demonstration" - the test verifies the reactor will remain subcritical with the strongest worth rod fully withdrawn.
- 9.3 "Core Thermal Power Evaluation" - the test performs an energy balance on the reactor vessel based on thermodynamic data.
- 9.5 "LPRM Calibration" - the test calibrates the nuclear instrumentation local power range monitors in terms of local fuel rod surface heat flux.
- 9.9 "Control Rod Scram Insertion Time Evaluation" - the test verifies that technical specification requirements for emergency control rod insertion are met.

b. Findings

No findings of significance were identified.

1R23 Temporary Modifications

a. Inspection Scope

The inspector reviewed three temporary plant modifications using 10 CFR 50, Appendix B, Criterion III, "Design Control," procedure 1.5.9, "Temporary Modifications," and 10 CFR 50.59, "Changes, Tests, and Experiments," as acceptance criteria. The inspection included review of the modifications to ensure that they did not adversely affect permanent system availability or operability. The inspector walked down the modifications to verify that they were correctly installed, and discussed their installation with plant technicians and operators. The following modifications were reviewed:

- TM01-36 - installation of modified control rod position indicator probe buffer card to clear spurious rod drift alarms
- TM01-29 - reroute local power range monitor undervessel cables

- TM01-39 - temporary enclosure to contain the RCIC steam emission valve, MO-1301-17, body-to-bonnet steam leak

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

4OA3 Event Followup

(Closed) LER 50-293/2001-03-00: ESF Actuations due to Invalid Water Level Indications. This event occurred on April 21, 200l and was previously documented in Section 4OA3.3 of NRC Inspection Report 50-293/2001-03. This report provided no new information and was closed.

40A6 Management Meetings

The inspectors presented the inspection results to Mr. C. Dugger, VP Operations, and other members of licensee management at the conclusion of the inspection on June 28, 2001. No findings were presented at the meeting. No proprietary information was examined during the inspection.

A public meeting was conducted with Mr. M. Bellamy, Pilgrim Site VP, and other members of licensee management at the John Carver Inn, Plymouth, Massachusetts on June 26, 2001. The meeting was held to discuss the plant performance assessment resulting from the initial implementation of the Reactor Oversight Process, as described in the Annual Assessment Letter, dated May 30, 2001.

ATTACHMENT

SUPPLEMENTAL INFORMATION

a. List of Items Opened, Closed and Discussed

Closed

LER 50-293/2001-03-00 ESF Actuations due to Invalid Water Level Indications.

b. List of Acronyms

AO	Air Operated
AOG	Augmented Off Gas
CRHEAFS	Control Room High Efficiency Air Filtration System
ESF	Engineered Safety Features
LER	Licensee Event Report
LPRM	Local Power Range Monitor
MO	Motor Operated
MR	Maintenance Request
OE	Operability Evaluation
PR	Problem Report
RCIC	Reactor Core Isolation Cooling
RM	Radiation Monitor
SJAE	Steam Jet Air Ejector
TM	Temporary Modification
SDP	Significance Determination Process