

MAR 21 1989

Docket No. 50-293

MEMORANDUM FOR: James T. Wiggins, Chief  
Reactor Projects Branch No. 3  
Division of Reactor Projects

FROM: A. Randy Blough, Chief  
Reactor Projects Section No. 3B  
Division of Reactor Projects

SUBJECT: PILGRIM STATUS REPORT FOR THE PERIOD FEBRUARY 25 - MARCH 10, 1989

Enclosed is the Pilgrim bi-weekly status report from the NRC Resident Office at Pilgrim. The NRC Restart Staff is in place and was on-site monitoring licensee activities on an around-the-clock basis during power ascension testing. Coverage was provided on an extended shift basis during periods of reduced plant activities.

On March 3, 1989, at 1:30 p.m., the Acting Regional Administrator of NRC Region I, approved the NRC Restart Assessment Panel's recommendation to release the licensee from the second NRC approval point (5% of rated power) in the Power Ascension Test Program.

The Pilgrim bi-weekly status report is intended to provide NRC management and the public with an overview of plant activities and NRC restart inspection activities. Subsequent inspection reports will address many of these topics in more detail.

Original Signed by  
A. Randy Blough

A. Randy Blough, Chief  
Reactor Projects Section No. 3B

Enclosure:  
As stated

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PILGRIM STATUS 2/25-3/10/89 - 0001.0.0  
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cc w/encl:

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L. Gustin, Vice President - Corporate Relations  
K. Highfill, Station Director  
R. Anderson, Plant Manager  
J. Keyes, Licensing Division Manager  
E. Robinson, Nuclear Information Manager  
R. Swanson, Nuclear Engineering Department Manager  
The Honorable Edward M. Kennedy  
The Honorable Edward J. Markey  
The Honorable Edward P. Kirby  
The Honorable Peter V. Forman  
Chairman, Board of Selectmen, Plymouth  
Chairman, Board of Selectmen, Carver  
Chairman, Board of Selectmen, Duxbury  
Chairman, Board of Selectmen, Marshfield  
Chairman, Board of Selectmen, Kingston  
Chairman, Board of Selectmen, Bridgewater  
Mayor, City of Taunton  
Plymouth Civil Defense Director  
P. Agnes, Assistant Secretary of Public Safety, Commonwealth of  
Massachusetts  
M. Ernst, Committee on Energy, Commonwealth of Massachusetts  
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*JWC*  
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*R*  
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*JWC*  
RI:DRP  
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## ENCLOSURE

### Pilgrim Status Report for the Period February 25 - March 10, 1989

#### 1.0 Plant Status

As of 8:00 a.m., on March 10, 1989, the reactor was in the cold shutdown mode with moderator temperature about 175 degrees Fahrenheit.

#### 2.0 Power Ascension Test Program Status

At 1:30 p.m., on March 3, 1989, the Acting Regional Administrator of NRC Region I, approved the NRC Restart Assessment Panel's recommendation to release the licensee from the second NRC approval point (5% of rated power) in the Power Ascension Test Program. The program includes NRC approval points at 5%, 25%, 50% and 75% of full power and both a licensee written report and NRC review after completion of testing at full power. The NRC Restart Assessment Panel recommends to the Regional Administrator when the plant is ready to be released from each approval point.

The licensee completed initial turbine generator roll, testing, and synchronization to the electrical power distribution grid. The turbine generator was removed from service due to minor vibrations on two bearings. During the turbine coastdown, an automatic reactor shutdown (i.e., "scram") occurred. This event is explained in Section 3.0 below.

After completion of the investigation initiated as followup to the scram and any repairs, the licensee will continue implementation of their approved test program. The following testing activities are scheduled for this next phase: additional turbine generator testing; reactor core isolation cooling (RCIC) and high pressure coolant injection (HPCI) flow tests at 25% power; reactor mode switch testing; and additional training for operators.

#### 3.0 Facility Operations Summary

As reported in the last Pilgrim Status Report (February 11 - February 24, 1989), the plant was in cold shutdown at the beginning of this report period, with repairs in progress to a damaged electrical cable associated with the startup transformer. This transformer provides normal station electrical power when the main generator is not in service. After repairs to the cable were completed, the licensee brought the reactor critical on February 28, 1989, at 9:00 a.m., and commenced plant heat up while awaiting NRC approval to continue startup testing to the 25% power plateau. The reactor was at its rated pressure of approximately 1000 pounds per square inch gage (psig) on March 1, 1989, at approximately 4% of rated power.

On March 2, 1989, the licensee reduced reactor power to less than 1% and closed the main steam isolation valves (MSIV's) to repair minor steam leaks in the turbine building. The MSIV's function to isolate the main steam lines and limit the release of reactor coolant or radioactive materials during certain postulated accidents.

At 1:30 p.m., on March 3, 1989, the Acting Regional Administrator for Region I, approved the NRC Restart Assessment Panel's recommendation to release the licensee from the second NRC approval point (5% of rated power) in the Power Ascension Test Program. The licensee completed repairs of the small steam leaks and reopened the MSIV's at 10:20 p.m., and commenced raising reactor power for turbine testing.

At 3:40 p.m., on March 4, 1989, the turbine generator was synchronized to the grid. The licensee experienced minor vibrations on two turbine bearings and removed the turbine generator from service after about an hour of operation. At 5:49 p.m., a turbine bypass valve system anomaly occurred causing the bypass valves to close then fully open producing a reactor pressure drop which resulted in an automatic MSIV closure and reactor scram. All safety systems responded as designed. The turbine bypass valves direct reactor steam around the turbine directly to the main condenser when the turbine is not in service. The licensee performed a plant cooldown and placed the reactor in cold shutdown on March 5, 1989. The licensee's investigation of the event was unsuccessful in determining the root cause of the turbine bypass valve behavior. Licensee management presented the results of their investigation at a management meeting conducted on March 9, 1989, at NRC Region I. The licensee plans to perform a test during subsequent operations to assist in determining the root cause of this event. Detailed NRC review of the above licensee actions will be documented in Inspection Report Nos. 50-293/89-01 and 50-293/89-05.

#### 4.0 Items of Special Interest

##### Public Demonstration Against the Pilgrim Restart

About 100 people staged a two hour demonstration on February 26, 1989, against the restart of Pilgrim. The demonstration was held on licensee property, outside the protected area. No arrests or security incidents occurred.

Filing of Motion by the Commonwealth of Massachusetts to Stay the NRC Decision to Allow Pilgrim to Raise Power to 25%

On December 21, 1988, the Attorney General (AG) of the Commonwealth of Massachusetts filed a petition with the U.S. Court of Appeals for the First Circuit requesting the court to set aside the Commission's decision to allow Pilgrim Station to restart. The stated grounds of the petition were the incomplete status of offsite emergency plans. On February 21, 1989, the AG filed a motion requesting the Court to stay the NRC from permitting Pilgrim to operate above 5% of full power.

On March 2, 1989, the staff responded to the February 21, 1989, motion filed by the AG. The AG's motion for a stay was subsequently denied by the Court on March 6, 1989. Court action on the remaining requests is pending.

5.0 Emergency Notification System (ENS) Reports

Main Steam Isolation Valve Isolation and Reactor Scram

On March 4, 1989, the licensee experienced an isolation of the main steam isolation valves (MSIV's) and an automatic reactor scram. The event is described in detail in Section 3.0 above.

Actuation of LPCI Loop Select Logic

On March 9, 1989, the low pressure coolant injection (LPCI) loop select logic actuated. The LPCI loop select logic is designed to select the undamaged flowpath for injection of cooling water to the reactor vessel during a postulated loss of coolant accident. The actuation occurred when a relay was inadvertently actuated during a special surveillance test of the system logic, signaling two RHR system valves to close and two RHR system valves to open.

Detailed NRC review of the events described above will be documented in Inspection Report Nos. 50-293/89-01 and 50-293/89-05.

6.0 Pilgrim Restart Staff Activities

The Pilgrim Restart Staff implemented around-the-clock coverage from February 27, 1989, at 8:00 a.m. through March 5, 1989, at 10:00 p.m. Extended shift coverage was maintained during the balance of this report period during times when the pace of plant activities was reduced from that in normal testing. The shifts were staffed by personnel from NRC Region I, NRC Headquarters, an inspector from NRC Region IV, and an NRC contractor. A special inspection in the area of security and safeguards was also performed.

An NRC-developed inspection plan addressing the 0-25% power and covering the primary functional areas of operations, maintenance, surveillance, and startup testing was implemented. The inspectors assessed operator performance, organizational interfaces, adherence to procedures and technical specification compliance.

The Pilgrim Restart Staff continued to evaluate the performance of licensee personnel and the plant to determine whether the licensee should be permitted to proceed to the next NRC approval point, a maximum of 50% rated power.

Contact with the press and public continued throughout the period. The NRC Restart Manager has been handling inquiries from the press and the public with the assistance of the Region I Public Affairs Officer.

#### Pilgrim Restart Staff Composition During Period

The Pilgrim Restart Staff on-site was comprised of the following personnel during the period.

- C. Warren, Senior Resident Inspector and Restart Manager
- T. Kim, Resident Inspector
- A. Howe, Senior Operations Engineer
- J. Lyash, Project Engineer
- G. Bethke, Shift Inspector
- G. Thomas, Shift Inspector
- R. Latta, Shift Inspector
- F. McMannis, Shift Inspector
- T. Rebelowski, Shift Inspector
- G. Smith, Security Specialist
- W. Olsen, Security Specialist
- R. Bellamy, Chief, Facilities Radiological Safety and Safeguards Branch