



Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360

Michael A. Balduzzi  
Site Vice President

December 14, 2004

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555-0001

SUBJECT: Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
Docket No. 50-293  
License No. DPR-35

Technical Specifications Amendment Request to Revise Actions for  
Scram Discharge Volume (SDV) Vent and Drain Valves Consistent with  
Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404

REFERENCE: Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404,  
Revision 0, "SDV Actions"

LETTER NUMBER: 2.04.105

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Entergy Nuclear Operations Inc. (Entergy) hereby proposes to amend its Facility Operating License, DPR-35. The proposed changes would revise the required action within Technical Specification (TS) 3.3.G, "Scram Discharge Volume" for the condition of having one or more SDV vent or drain lines with one valve inoperable. These changes are based on the Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404 (Revision 0), that has been approved generically for the BWR/4 Standard Technical Specifications, NUREG-1433. The availability of this TS improvement was announced in the *Federal Register* on April 15, 2003 as part of the Consolidated Line Item Improvement Process (CLIIP). Entergy has reviewed the proposed amendment in accordance with 10 CFR 50.92 and concludes it does not involve a significant hazards consideration.

Entergy requests approval of the proposed amendment by December 30, 2005. Once approved, the amendment shall be implemented within 60 days.

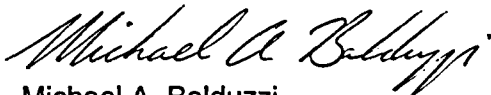
There are no commitments contained in this letter.

4001

If you have any questions or require additional information, please contact Bryan Ford at (508) 830-8403.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 14th December, 2004.

Sincerely,

  
Michael A. Balduzzi

ES/dm

Enclosure: Evaluation of the proposed change – 2 pages

Attachments: 1. Proposed Technical Specification and Bases Changes (mark-up) – 4 pages

cc: Mr. Robert Fretz, Project Manager  
Office of Nuclear Reactor Regulation  
Mail Stop: 0-8B-1  
U.S. Nuclear Regulatory Commission  
1 White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Mr. Robert Walker, Director  
Massachusetts Department of Public Health  
Radiation Control Program  
90 Washington Street  
Dorchester, MA 02121

U.S. Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19408

Ms. Cristine McCombs, Director  
Mass. Emergency Management  
Agency  
400 Worcester Road  
Framingham, MA 01702

Senior Resident Inspector  
Pilgrim Nuclear Power Station

ENCLOSURE

EVALUATION OF THE PROPOSED CHANGE

## ENCLOSURE

### Evaluation of the Proposed Change

Subject: Technical Specifications Amendment Request to Revise Actions for Scram Discharge Volume (SDV) Vent and Drain Valves Consistent with Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404

1. DESCRIPTION
2. ASSESSMENT
3. REGULATORY ANALYSIS
  - 3.1 No Significant Hazards Consideration
  - 3.2 Verification and Commitment
4. ENVIRONMENTAL CONSIDERATION
5. REFERENCES

1. Description

Entergy Nuclear Operations, Inc. (Entergy) is requesting to amend Operating License DPR-35 for Pilgrim Nuclear Power Station (PNPS). The proposed changes would revise the Operating License, Technical Specifications (TS) 3.3.G, "Scram Discharge Volume," for the condition of having one or more SDV vent or drain lines with one valve inoperable. These changes are based on Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404 (Revision 0) that has been approved generically for the BWR/4 Standard Technical Specifications (STS), NUREG-1433. The availability of this TS improvement was announced in the *Federal Register* on April 15, 2003 as part of the Consolidated Line Item Improvement Process (CLIIP).

2. Assessment

2.1 Applicability of Published Safety Evaluation

Entergy Nuclear Operations, Inc. (Entergy) has reviewed the model safety evaluation published on April 15, 2003 (68 FR 18294) as part of the CLIIP. This verification included a review of the NRC staff's evaluation as well as the supporting information provided to support TSTF-404. Entergy has concluded that the justifications presented in the TSTF proposal and the model safety evaluation prepared by the NRC staff are applicable to PNPS and justify this amendment for the incorporation of the changes into the PNPS Technical Specifications.

2.2 Optional Changes and Variations

Entergy is not proposing any variations or deviations from the Technical Specification changes described in TSTF-404 or the model safety evaluation published on April 15, 2003.

3. Regulatory Analysis

3.1 No Significant Hazards Consideration

Entergy Nuclear Operations, Inc. (Entergy) is proposing to modify the Pilgrim Nuclear Power Station (PNPS) Technical Specifications (TS) to adopt actions for inoperable scram discharge volume (SDV) vent and drain valves consistent with Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404, Revision 0, "SDV Actions." Entergy has reviewed the proposed no significant hazards consideration determination published on April 15, 2003 as part of the CLIIP. Entergy has concluded that the proposed determination presented in the notice is applicable to PNPS and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

There are no new regulatory commitments associated with this proposed change.

4. Environmental Evaluation

Entergy Nuclear Operations, Inc. (Entergy) has reviewed the environmental evaluation included in the model safety evaluation published on April 15, 2003 as part of the CLIIP. Entergy has concluded that the NRC staff's findings presented in that evaluation are applicable to PNPS and the evaluation is hereby incorporated by reference for this application.

5. References

1. Technical Specifications Task Force (TSTF) Change Traveler, TSTF-404, Revision 0, "SDV Actions."
2. *Federal Register* on April 15, 2003 (68 FR 18294).

---

**ATTACHMENT 1**  
**PROPOSED TECHNICAL SPECIFICATION AND BASES**  
**CHANGES (MARK-UP)**

# TABLE OF CONTENTS

1.0	DEFINITIONS		1-1
2.0	SAFETY LIMITS		2-1
2.1	Safety Limits		2-1
2.2	Safety Limit Violation		2-1
	BASES		B2-1
LIMITING CONDITIONS FOR OPERATION		SURVEILLANCE REQUIREMENTS	
3.0	LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY	4.0	3/4.0-1
3.1	REACTOR PROTECTION SYSTEM BASES	4.1	3/4.1-1 B3/4.1-1
3.2	PROTECTIVE INSTRUMENTATION	4.2	3/4.2-1
A.	Primary Containment Isolation Functions	A	3/4.2-1
B.	Core and Containment Cooling Systems	B	3/4.2-1
C.	Control Rod Block Actuation	C	3/4.2-2
D.	Radiation Monitoring Systems	D	3/4.2-2
E.	Drywell Leak Detection	E	3/4.2-3
F.	Surveillance Information Readouts	F	3/4.2-3
G.	Recirculation Pump Trip/ Alternate Rod Insertion	G	3/4.2-4
H.	Drywell Temperature	H	3/4.2-5
	BASES		B3/4.2-1
3.3	REACTIVITY CONTROL	4.3	3/4.3-1
A.	Reactivity Margin – Core Loading	A	3/4.3-1
B.	Control Rod Operability	B	3/4.3-2
C.	Scram Insertion Times	C	3/4.3-7
D.	Control Rod Accumulators	D	3/4.3-8
E.	Reactivity Anomalies	E	3/4.3-10
F.	Rod Worth Minimizer (RWM)	F	3/4.3-11
G.	Scram Discharge Volume (SDV)	G	3/4.3-12
H.	Rod Pattern Control	H	3/4.3-13
	BASES		B3/4.3-1
3.4	STANDBY LIQUID CONTROL SYSTEM BASES	4.4	3/4.4-1 B3/4.4-1
3.5	CORE AND CONTAINMENT COOLING SYSTEMS	4.5	3/4.5-1
A.	Core Spray and LPCI Systems	A	3/4.5-1
B.	Containment Cooling System	B	3/4.5-3
C.	HPCI System	C	3/4.5-7
D.	Reactor Core Isolation Cooling (RCIC) System	D	3/4.5-8
E.	Automatic Depressurization System (ADS)	E	3/4.5-9
F.	Minimum Low Pressure Cooling and Diesel Generator Availability	F	3/4.5-10
G.	(Deleted)	G	3/4.5-11
H.	Maintenance of Filled Discharge Pipe	H	3/4.5-12
	BASES		B3/4.5-1



## LIMITING CONDITIONS FOR OPERATION

### 3.3 REACTIVITY CONTROL (continued)

#### G. Scram Discharge Volume (SDV)

##### LCO 3.3.G

The scram discharge volume drain & vent valves shall be OPERABLE.

##### APPLICABILITY:

RUN and STARTUP MODES;  
REFUEL MODE when the reactor vessel head is fully tensioned.

##### ACTIONS:

- A. Any scram discharge volume drain or vent valves made or found inoperable.

Be in HOT SHUTDOWN within 12 hours.

**INSERT**

----- NOTE -----  
ACTIONS may be applied independently to each vent or drain line.

- A. With one or more SDV vent or drain lines with one valve inoperable, isolate\* the associated line within 7 days.
- B. One or more SDV vent or drain lines with both valves inoperable, isolate\* the associated line within 8 hours.
- C. Otherwise, be in HOT SHUTDOWN within the next 12 hours.

(\*) An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.

## SURVEILLANCE REQUIREMENTS

### 4.3 REACTIVITY CONTROL (continued)

#### G. Scram Discharge Volume (SDV)

##### SR 4.3.G.1

Verify scram discharge volume drain and vent valves open at least once per month.

##### SR 4.3.G.2

Test scram discharge volume drain and vent valves as specified in 4.13. These valves may be closed intermittently for testing under administrative control.

##### SR 4.3.G.3

During each REFUELING INTERVAL verify the scram discharge volume drain and vent valves.

- a Close within 30 seconds after receipt of a reactor scram signal.

##### AND

- b Open when the scram is reset.

B 3/4.3      REACTIVITY CONTROL

BASES

LCO

The OPERABILITY of all SDV vent and drain valves ensures that the SDV vent and drain valves will close during a scram to contain reactor water discharged to the SDV piping. Since the vent and drain lines are provided with two valves in series, the single failure of one valve in the open position will not impair the isolation function of the system. Additionally, the valves are required to open on a scram reset to ensure that a path is available for the SDV piping to drain freely at other times.

APPLICABILITY

In the RUN and STARTUP MODES, scram may be required; therefore, the SDV vent and drain valves must be OPERABLE. In the HOT SHUTDOWN and COLD SHUTDOWN MODES, control rods are not able to be withdrawn since the reactor mode switch is in shutdown and a control rod block is applied. This provides adequate requirements for control rod OPERABILITY during these conditions. CTS 3/4.10, "CORE ALTERATIONS", provides requirements to ensure that core reactivity is within the capability of the control rods and to prevent criticality during refueling conditions.

ACTIONS

INSERT →

A.1

If any scram discharge vent or drain valve becomes inoperable the, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least HOT SHUTDOWN within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach HOT SHUTDOWN from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE  
REQUIREMENTS

SR 4.3.G.1 and SR 4.3.G.2

During normal operation, the SDV vent and drain valves should be in the open position (except when performing SR 4.3.G.2) to allow for drainage of the SDV piping. Verifying that each valve is in the open position (SR 4.3.G.1) ensures that the SDV vent and drain valves will perform their intended functions during normal operation. This SR does not require any testing or valve manipulation; rather, it involves verification that the valves are in the correct position.

The 31 day frequency is based on engineering judgment and is consistent with the procedural controls governing valve operation, which ensure correct valve positions.

**INSERT for Bases Page B 3/4.3-34**

The ACTIONS are modified by a Note indicating that the ACTIONS may be independently applied for each SDV vent and drain line. This is acceptable, since the ACTIONS for each condition provide appropriate compensatory actions for each inoperable SDV line. Complying with the ACTIONS may allow for continued operation, and subsequent inoperable SDV lines are governed by subsequent ACTION entry.

When a line is isolated, the potential for an inadvertent scram due to high SDV level is increased. During these periods, Footnote \* allows for the line to be unisolated under administrative control. This allows any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This is acceptable since the administrative controls ensure the valve can be closed quickly, by a dedicated operator, if a scram occurs with the valve open.

**A**

When one SDV vent or drain valve is inoperable in one or more lines, the associated line must be isolated to contain the reactor coolant during a scram. The 7 day Completion Time is reasonable, given the level of redundancy in the lines and the low probability of a scram occurring while the valve(s) are inoperable and the line is not isolated. The SDV is still isolable since the redundant valve in the affected line is OPERABLE. During these periods, the single failure criterion may not be preserved, and a higher risk exists to allow reactor water out of the primary system during a scram.

**B**

If both valves in a line are inoperable, the line must be isolated to contain the reactor coolant during a scram. The 8 hour Completion Time to isolate the line is based on the low probability of a scram occurring while the line is not isolated and unlikelihood of significant CRD seal leakage.

**C**

If any Required Action and associated Completion Time is not met, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least HOT SHUTDOWN within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach HOT SHUTDOWN from full power conditions in an orderly manner and without challenging plant systems.