



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

**Michael A. Balduzzi**  
Site Vice President

June 6, 2003

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station O-P1-17  
Washington, DC 20555-0001

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

Request for Additional Information  
Request for Amendment to the Technical Specifications  
Consolidated Line Item Improvement Process (CLIIP)  
Implementation of TSTF-358 – Missed Surveillance Requirements

**REFERENCE:** 1. Entergy Letter to the NRC, 2.02.073, Request for Amendment  
to the Technical Specifications Consolidated Line Item  
Improvement Process (CLIIP) Implementation of TSTF-358 –  
Missed Surveillance Requirements, dated August 16, 2002.

**LETTER NUMBER:** 2.03.040

Dear Sir or Madam:

Discussions with the NRC indicated that additional information was needed to complete their review of the reference submittal. Attached is a supplement to the original submittal (Reference 1) to clarify Pilgrim's actions for failed Technical Specification surveillances consistent with the NRC staff's model safety evaluation.

This response does not change the no significant hazard conclusions previously submitted in Entergy Letter 2.02.073, dated August 16, 2002.

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

A061

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 6th of June 2003.

Sincerely,

  
Michael A. Balduzzi

Enclosure: Evaluation of the Proposed Changes (4 pages)

Attachment 1: Mark-up of Proposed Technical Specifications and Bases (6 pages)

cc: Mr. Travis Tate, 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

U.S. Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406

Senior Resident Inspector  
Pilgrim Nuclear Power Station

Mr. Robert Walker  
Radiation Control Program  
Commonwealth of Massachusetts  
Exec Offices of Health & Human Services  
174 Portland Street  
Boston, MA 02114

Mr. Steve McGrail, Director  
Mass. Emergency Management Agency  
400 Worcester Road  
P.O. Box 1496  
Framingham, MA 01702

## **ENCLOSURE**

### **Evaluation Of The Proposed Changes**

**Subject: Consolidated Line Item Improvement Process (CLIIP)  
Implementation of TSTF-358 – Missed Surveillance Requirements**

- 1. DESCRIPTION**
- 2. PROPOSED CHANGES**
- 3. BACKGROUND**
- 4. TECHNICAL ANALYSIS**
  - 4.1 Applicability of Published Safety Evaluation**
  - 4.2 Optional Changes and Variations**
- 5. REGULATORY SAFETY ANALYSIS**
  - 5.1 No Significant Hazards Consideration**
  - 5.2 Verification and Commitments**
- 6. ENVIRONMENTAL CONSIDERATION**
- 7. REFERENCES**

**1. DESCRIPTION**

Entergy Nuclear Operations, Inc. (Entergy) proposes to amend the Technical Specifications (TS) to add requirements for missed TS required surveillances.

The changes are consistent with NRC approved Industry Technical Specification Task Force (TSTF) Standard Technical Specifications (STS) change TSTF-358 Revision 5, as modified by Federal Register Notice 66FR32400, of June 14, 2001. The availability of this TS improvement was published in the Federal Register on September 28, 2001, as part of the consolidated line item improvement process (CLIIP).

**2. PROPOSED CHANGES**

Insert new sections 3.0, "Limiting Condition for Operation (LCO) Applicability," and 4.0, "Surveillance Requirement (SR) Applicability," into the TS. Revise Table of Contents to reflect addition of new sections. Identify Sections 3.0, 4.0.1, and 4.0.2 as "Not Used."

**LIMITING CONDITIONS FOR OPERATION (LCO):** Insert the following after the first paragraph of the definition:

"Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO."

Add the following as Section 4.0.3:

**4.0.3** "If it is discovered that a Surveillance was not performed within its specified Surveillance Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Surveillance Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered."

Also, included for information in Attachment 1 are the associated Bases changes to be implemented.

### **3. BACKGROUND**

The purpose of STS SR 3.0.3 as modified by TSTF-358 and endorsed in the Federal Register on September 28, 2001 is to establish the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Surveillance Frequency.

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of the unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

Failure to comply with specified Frequencies for surveillance intervals is expected to be an infrequent occurrence. Use of the delay period established by STS SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals. While up to 24 hours or the limit of the specified Surveillance Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity.

Pilgrim Nuclear Power Station's (PNPS) TS predate the establishment of the STS and do not contain the allowances of STS SR 3.0.3. Having this allowance could prevent unnecessary plant transients and would be a significant benefit.

### **4. TECHNICAL ANALYSIS**

#### **A. Applicability of Published Safety Evaluation**

Entergy Nuclear Operations, Inc. (Entergy) has reviewed the NRC safety evaluation dated September 28, 2001, as part of the CLIIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-358. Entergy has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to PNPS and justify this amendment for incorporation into the PNPS TSs.

#### **B. Optional Changes and Variations**

Entergy proposes adding a revision to the DEFINITIONS to clarify the action required when the Surveillance Requirement is not met. Also, Sections 3.0 and 4.0 are added to the PNPS TS. The PNPS TS have a different format and terminology than the STS and the proposed change

has been modified to reflect these differences. The proposed TS changes are consistent with the modified TSTF – 358 Revision 5 and the NRC staff's model safety evaluation dated September 28, 2001.

Entergy has added a clarification to the TS DEFINITION for LIMITING CONDITIONS FOR OPERATION to clearly state that failure to meet a surveillance means failure to meet the LCO, consistent with the requirements of SR 3.0.1 and the NRC staff's model safety evaluation. The remaining requirements of SR 3.0.1 are addressed in other TS DEFINITIONS (e.g., surveillance frequency and surveillance interval).

The NRC has previously approved the application of TSTF – 358 with changes to reflect the specific plant's differences from the STS for Monticello (Reference 1).

## **5. REGULATORY ANALYSIS**

### **1. No Significant Hazards Consideration**

Entergy has reviewed the proposed no significant hazard consideration determination published in the *Federal Register* as part of the CLIP. Entergy has concluded that the proposed no significant hazard consideration determination presented in the Federal Register notice is applicable to the Pilgrim Nuclear Power Station, and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

### **2. Verification and Commitments**

As discussed in the notice of availability published in the Federal Register on September 28, 2001 for this TS improvement, plant-specific verifications were performed as follows:

Entergy will establish TS Bases for Section 4.0.3. The Bases for 4.0.3 will state that use of the delay period established by Surveillance Requirement 4.0.3 is a flexibility that is not intended to be used as an operational convenience to extend surveillance intervals, but only for the performance of missed surveillances.

The modification will also include changes to the Bases for 4.0.3 that provide guidance for surveillance frequencies that are not based on time intervals but are based on specified unit conditions, operating situations, or requirements of regulations. In addition, the Bases changes will state that Entergy is expected to perform a missed surveillance at the first reasonable opportunity, taking into account appropriate considerations, such as impact on plant risk and analysis assumptions, consideration of unit conditions, planning, availability of personnel, and the time required to perform the surveillance. The Bases will also state that the risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at

Nuclear Power Plants.” The missed surveillance should be treated as an emergent condition, as discussed in Regulatory Guide 1.182. In addition, the Bases will state that the degree of depth and rigor of the evaluation should be commensurate with the importance of the component and that missed surveillance for important components should be analyzed quantitatively. The Bases will also state that the results of the risk evaluation will determine the safest course of action. Further, the Bases will state that all missed surveillances will be placed in the licensee’s Corrective Action Program. Finally, Entergy has a Bases Control Program consistent with Section 5.5 of the Standard Technical Specifications.

## **6. ENVIRONMENTAL CONSIDERATION**

Entergy Nuclear Operations, Inc has reviewed the environmental evaluation in the model safety evaluation dated September 28, 2001, as part of the CLIIP. Entergy has concluded that the staff’s findings presented in the evaluation are applicable and the evaluation is hereby incorporated by reference for this application.

## **7. REFERENCES**

1. NRC letter to Monticello Nuclear Generating Plant, Monticello Nuclear Generating Plant – Issuance of Amendment 127 dated May 31, 2002 Re: Missed Surveillances (TAC MB4275)

# **ATTACHMENT 1**

## **Proposed Technical Specification and Bases Changes**



# 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	3.0/4.0-1
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 Accumulator	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	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

## 1.0 DEFINITIONS (Cont)

INSTRUMENT CALIBRATION	An INSTRUMENT CALIBRATION means the adjustment of an instrument signal output so that it corresponds, within acceptable range and accuracy, to a known value(s) of the parameter which the instrument monitors. Calibration shall encompass the entire instrument including actuation, alarm or trip.
INSTRUMENT CHANNEL	An INSTRUMENT CHANNEL means an arrangement of a sensor and auxiliary equipment required to generate and transmit to a trip system a single trip signal related to the plant parameter monitored by that instrument channel.
INSTRUMENT CHECK	An INSTRUMENT CHECK is a determination of acceptable operability by observation of instrument behavior during operation. This determination shall include, where possible, comparison of the instrument with other independent instruments measuring the same variable.
INSTRUMENT FUNCTIONAL TEST	An INSTRUMENT FUNCTIONAL TEST means the injection of a simulated signal into the instrument primary sensor to verify the proper instrument channel response, alarm and/or initiating action.
LEAKAGE	<p>a. <u>Identified LEAKAGE:</u></p> <ol style="list-style-type: none"><li>1. Reactor coolant LEAKAGE into drywell collection systems, such as pump seal or valve packing leaks, that is captured and conducted to a sump or collecting tank, or</li><li>2. Reactor coolant LEAKAGE into the drywell atmosphere from sources which are both specifically located and known either not to interfere with the operation of the leakage detection systems or not to be Pressure Boundary Leakage.</li></ol> <p>b. <u>Unidentified LEAKAGE:</u></p> <p>Unidentified LEAKAGE shall be all reactor coolant leakage which is not Identified Leakage.</p> <p>c. <u>Pressure Boundary LEAKAGE</u></p> <p>Pressure Boundary LEAKAGE shall be leakage through a non- isolable fault in a reactor coolant system component body, pipewall or vessel wall.</p>
LIMITING CONDITIONS FOR OPERATION (LCO)	The LIMITING CONDITIONS FOR OPERATION specify the minimum acceptable levels of system performance necessary to assure safe startup and operation of the facility. When these conditions are met, the plant can be operated safely and abnormal situations can be safely controlled.

Insert →

**Insert into definition of Limiting Conditions For Operation (LCO)**

**"Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO."**

### **3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY**

---

Not Used

### **4.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY**

---

4.0.1 Not Used

4.0.2 Not Used

4.0.3 If it is discovered that a Surveillance was not performed within its specified Surveillance Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Surveillance Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

---

## **BASES:**

### **3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY**

Not Used

### **4.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY**

4.0.1 Not Used

4.0.2 Not Used

4.0.3 TS 4.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Surveillance Frequency. A delay period of up to 24 hours or up to the limit of the specified Surveillance Frequency, whichever is greater, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with the definition of "Surveillance Frequency" and not at the time that the specified Surveillance Frequency was not met.

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of the unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

When a Surveillance with a Surveillance Frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, TS 4.0.3 allows for the full delay period of up to the specified Surveillance Frequency to perform the Surveillance. However, since there is no time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

TS 4.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of reactor MODE changes imposed by required Actions.

Failure to comply with specified Frequencies for surveillance intervals is expected to be an infrequent occurrence. Use of the delay period established by TS 4.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals. While up to

## **BASES:**

24 hours or the limit of the specified Surveillance Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any (continued) analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation should be commensurate with the importance of the component. Missed Surveillance for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the completion times or the required actions for the applicable LCO Actions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the completion times of the required actions for the applicable LCO Actions begin immediately upon the failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the completion time of the Actions, restores compliance with "Surveillance Frequency."