Entergy

Entergy Nuclear Generation Company
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360

J. F. Alexander
Director
Nuclear Assessment

April 6, 2001
ENGC. Ltr. 2.01.043

10 CFR 50.36

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

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

Technical Specification Bases Change to 3/4.5.B,
"Core and Containment Cooling Systems"

Bases Change

The attached change to Pilgrim Technical Specification Section 3/4.5.B, *"Core and Containment Cooling Systems"*, Bases ads *"... or Refueling"* to the operating modes excepted from requiring the Reactor Building Closed Cooling Water (RBCCW) System, and the Salt Service Water (SSW) System, and the Ultimate Heat Sink (UHS) from being operable.

The changes are shown on the attached pages.

Reason for Change

The operability requirements for RBCCW and SSW are identified by Technical Specification Sections 3/4.5.B and 3/4.5.B.4, respectively. These systems are required to be operable whenever irradiated fuel is in the vessel, reactor coolant is > 212 degrees F, and prior to startup from a cold condition. A cold condition is defined as when the reactor coolant temperature is equal or less than 212 degrees F.

The purpose of the Technical Specification Bases is to provide the basis or reason for the associated Technical Specifications, but Bases are not part of the Technical Specification in accordance with 10 CFR 50.36. The current Technical Specification Basis sections state that RBCCW and SSW are required in all modes except for cold shutdown. This presents a potential interpretation conflict with the actual specification because it suggests that these systems would be required when in the refueling mode. Because the Technical Specifications clearly indicate that these systems are not required during cold conditions, the basis section needs to more closely reflect the Technical Specification to preclude the potential interpretation conflict. Since cold conditions exist during refueling, the RBCCW and SSW systems are not required. Therefore, the basis sections should reflect that these systems are not required during cold shutdown or refueling. During cold shutdown or refueling, the operability requirements of the RBCCW and SSW systems are determined by the systems they support.

A001

Impact Considerations

- **The proposed activity does not create the possibility of an accident of a different type than any previously identified.**

  The applicable accidents and transients to the refueling mode include a fuel handling accident, loss of offsite power (LOOP), a loss of shutdown cooling, and inadvertent drain down. Changing the Bases Section for RBCCW and SSW to more accurately reflect the associated Technical Specifications does not affect any initiators of any type. Consequently, there are no new initiators, and, therefore, no possibility of accidents of a different type.

- **The proposed activity does not create the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated.**

  The applicable accidents and transients to the refueling mode include a fuel handling accident, loss of offsite power (LOOP), a loss of shutdown cooling, and inadvertent drain down. The proposed activity does not create the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated. Changing the Bases Section for RBCCW and SSW to more accurately reflect the associated Technical Specifications does not affect any equipment important to safety, consequently, there are no new initiators, and, therefore, no possibility of a malfunction of equipment important to safety of a different type than any previously evaluated.

- **The proposed activity does not reduce the margin of safety as defined in the basis for any Technical Specification.**

  Changing the Bases Section for RBCCW and SSW to more accurately reflect the associated Technical Specification does not affect on safety margin and there is no reduction in the margin of safety.

In accordance with 10 CFR 50.36(a), the bases are not part of Technical Specifications. Therefore, Bases changes do not constitute an amendment to the operating license and prior NRC approval is not required. Please incorporate this Bases change into your copy of the Pilgrim Nuclear Power Station Technical Specifications.

Should you require further information on this change, please contact P.M. Kahler At (508) 830-7939.

Very truly yours,

Jack Alexander

Attachments: Technical Specification Bases Pages B3/4.5-12 and 3/4.5-16

cc: Mr. Alan B. Wang, Project Manager
Project Directorate I-3
Office of Nuclear Reactor Regulation
Mail Stop: OWFN 14B20
1 White Flint North
11855 Rockville Pike
Rockville, MD 20852

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

Senior Resident Inspector

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

Mr. Steven Mc Grail, Director
Mass. Energy Management Agency
400 Worcester Road
P.O. Box 1496
Framingham, MA 01701-0317

APPLICABLE SAFETY ANALYSES (continued)

The RBCCW System satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

SPECIFICATION

Two RBCCW subsystems are required to be OPERABLE to provide the required redundancy to ensure that the system functions to remove post accident heat loads, assuming the worst case single active failure occurs coincident with the loss of offsite power.

An RBCCW subsystem is considered OPERABLE when:

a. Two pumps are OPERABLE; and

b. An OPERABLE flow path is capable of taking suction from the reactor building cooling water heat exchanger and transferring the water to the associated safety equipment and RHR heat exchangers at the assumed flow rate. Additionally, the RBCCW cross tie valves (which allow the two RBCCW loops to be connected) must be closed so that failure of one subsystem will not affect the OPERABILITY of the other subsystems.

The isolation of the RBCCW system to individual components may render those components inoperable but does not affect the OPERABILITY of the RBCCW system.

APPLICABILITY

In all Modes except Cold Shutdown or Refueling, the RBCCW system is required to be OPERABLE to support the OPERABILITY of the components or systems serviced by the RBCCW system.

In Cold Shutdown or Refueling, the OPERABILITY requirements of the RBCCW system are determined by the systems it supports.

ACTIONS

A.1

With one required RBCCW pump inoperable, the inoperable pump must be restored to OPERABLE status within 7 days. The remaining, required pump in the affected loop is sufficient to handle the normal operation heat loads and the remaining OPERABLE loop (2 required pumps) is sufficient to perform the RBCCW heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced RBCCW capability. The 7 day completion time is based on the remaining RBCCW heat removal capability and the low probability of a DBA with concurrent worst case single failure.

(continued)

APPLICABILITY

In all Modes except Cold Shutdown or Refueling, the SSW system and UHS are required to be OPERABLE to support OPERABILITY of the equipment serviced by the SSW system.

In the Cold Shutdown Mode or Refueling, the OPERABILITY requirements of the SSW system and UHS are determined by the systems they support.

ACTIONS

A.1

With one SSW subsystem inoperable, the inoperable subsystem must be restored to OPERABLE status within 72 hours. With the unit in this condition, the remaining OPERABLE SSW subsystem is adequate to perform the RBCCW heat removal function. However, the overall reliability is reduced because a single active failure in the OPERABLE subsystem could result in loss of SSW function. The completion time is based on the capabilities afforded by the redundant, OPERABLE SSW subsystem, the low probability of an event occurring during this period requiring SSW, and is consistent with the allowed Completion Time for restoring an inoperable RBCCW subsystem.

B.1

If the inoperable SSW subsystem cannot be restored to OPERABLE status within the associated completion time or if two SSW subsystems are inoperable, or the UHS is inoperable, the unit must be placed in a MODE in which the Specification does not apply. To achieve this status, the unit must be in Cold Shutdown within 24 hours. The allowed completion times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 4.5.B.4.1

This SR verifies the water level in each pump well of the intake structure to be sufficient for the proper operation of the SSW pumps (net positive suction head and pump vortexing are considered in determining this limit). The 24 hour frequency is based on operating experience related to trending of the parameter and the availability of alarms to alert the operators prior to exceeding the limit.

SR 4.5.B.4.2

Verification of the sea water inlet temperature ensures that the heat removal capability of the SSW system is within the assumptions of the DBA analysis. The 24 hour Frequency is based on operating experience related to trending of the parameter and the availability of alarms to alert the operators prior to exceeding the limit.

(continued)