

July 26, 2006

Mr. Michael Kansler
President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601-1839

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
PILGRIM NUCLEAR POWER STATION LICENSE RENEWAL APPLICATION
(TAC MC9669)

Dear Mr. Kansler:

By letter dated January 25, 2006, Entergy Nuclear Operations, Inc. submitted an application pursuant to 10 CFR Part 54, to renew the operating license for Pilgrim Nuclear Power Station for review by the U.S. Nuclear Regulatory Commission (NRC). The NRC staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. These relate to Sections 2.3.3.9 Fire Protection System—Water and 2.3.3.10 Fire Protection System—Halon.

These questions were discussed with a member of your staff, Bryan Ford, and a mutually agreeable date for this response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-1478 or e-mail RXS2@nrc.gov.

Sincerely,

/RA/

Ram Subbaratnam, Project Manager
License Renewal Branch A
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-293

Enclosure:
Requests for Additional Information

cc w/encl: See next page

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Ram Subbaratnam, Project Manager
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Division of License Renewal
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ADAMS Accession No.: ML062120464

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DATE	7/20/06	7/20/06	7/21/06	7/26/06

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Letter to Michael Kansler from R. Subbaratnam dated July 26, 2006:

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PILGRIM NUCLEAR POWER STATION LICENSE RENEWAL APPLICATION
(TAC MC9669)

HARD COPY

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REQUESTS FOR ADDITIONAL INFORMATION
PILGRIM NUCLEAR POWER STATION
LICENSE RENEWAL APPLICATION
SECTION 2.3.3.9 & 10 - FIRE PROTECTION SYSTEM

The staff reviewed the Pilgrim Nuclear Power Station (PNPS) license renewal application (LRA), updated final safety analysis report (UFSAR), and U.S. Nuclear Regulatory Commission safety evaluation (SE), dated December 21, 1978, approving the PNPS fire protection program (the SE) and supplements. The staff has identified that fire protection (FP) systems and components have been excluded from the scope of license renewal and an aging management review (AMR). These systems and components were not included in the license renewal boundaries and appear to have FP intended functions required for compliance with Title 10 of the Code of Federal Regulations Part 50.48 (10 CFR 50.48) as stated in 10 CFR 54.4. In addition, the staff requests clarification on related technical issues (which may not be addressed in the LRA, thereby raising questions by their omission) which are needed to complete the review. Therefore, the staff requires responses to the following request for additional information (RAI)'s:

Section 2.3.3.9 Fire Protection System–Water

RAI 2.3.3.9-1

LRA drawings LRA-M-218-SH-01-0, LRA-M-218-SH-06-0, and LRA-M-218-SH-08-0 show the sprinkler and water spray systems for the turbine lube oil storage and conditioning as out of scope (i.e., not colored in orange). Please verify whether the turbine lube oil storage sprinkler system, conditioning room ceiling sprinkler system, and conditioning pre-action water spray system, are in scope of license renewal in accordance with 10 CFR 54.4(a) and subject to an AMR in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and not subject to an AMR, provide justification for the exclusion.

RAI 2.3.3.9-2

LRA drawing LRA-M-218-SH-02-0 shows the piping downstream of the city water supply as out of scope. With the city water supply serving as an alternate supply for the fire water system, please confirm and explain whether this line should be in scope for license renewal and subject to an AMR. If not, please explain the basis.

RAI 2.3.3.9-3

LRA Table 2.3.3-9 excludes several components shown in color (i.e., in scope) in the LRA drawing LRA-M-218-SH-01-0. For example, a reducer flange is shown in zone C-4 of the drawing and appears to restrict flow to the associated fire hose station. A blind flange is shown in zone F-6 in the reactor auxiliary bay. "Street box" housing is indicated in zone E-2. An unknown function or component is indicated by small trapezoid symbols shown mainly in headers upstream of hose stations in several buildings. An unknown function or component is indicated by a semi-circle symbol in zone F-4 located along a 2.5-inch line upstream of two hose stations in the reactor building. Please confirm and explain whether these components should be included in Table 2.3.3-9, as passive components within scope for license renewal and subject to an AMR. If not, please justify the exclusion.

RAI 2.3.3.9-4

LRA Table 2.3.3-9 excludes several types of FP Water System components that appear in the SE and its supplements and/or UFSAR, and which also appear in the LRA drawings colored in orange. These components are listed below.

- hose station
- hose connections
- pipe fittings
- couplings
- threaded connections
- restricting orifices
- interface flanges
- chamber housing
- actuator housing (e.g., weight releasing cabinet housing)

For each, please determine whether the component should be included in Table 2.3.3.9, and if not, please provide the basis for the exclusion.

RAI 2.3.3.9-5

LRA Table 2.3.3-9 excludes other component types such as gear boxes, gauge snubbers, etc. Please determine whether these and/or additional component types are in scope and subject to an AMR, and should be included in Table 2.3.3-9. If not, please justify the exclusion.

RAI 2.3.3.9-6

LRA Tables 2.4-2, 2.4-3, 2.4-4, and 2.4-6 exclude noncombustible shields and curbs (and scuppers) from the list of structural FP components in scope for license renewal and subject to an AMR. Section 3.1.11 of the SE discusses the use of noncombustible shields between feedwater pumps to prevent oil release from one pump impinging on the other pumps. Sections 3.1.11 and 4.8 of the SE discuss the use of curbs (and scuppers) in the diesel oil day tank rooms to contain potential oil spills and prevent them from spreading to other fire areas in the event of an oil fire. Please determine whether noncombustible shields and curbs (and scuppers) should be included as components in scope for license renewal and subject to an AMR.

RAI 2.3.3.9-7

LRA Table 2.4-6 excludes smoke seals and fire retardant coatings from the list of structural bulk commodities components in scope for license renewal and subject to an AMR. The SE supplement dated March 24, 1988, discusses the installation of smoke seals in electrical conduits that pass through fire barriers and between fire areas. Sections 3.2.4 and 4.11 of the SE discuss the use of fire retardant coatings to protect polyvinyl chloride jacketed cables where the cables are not installed in enclosed cable trays. Please determine whether these two components should be in scope and subject to an AMR, and justify exclusion if they are out of scope.

RAI 2.3.3.9-8

Section 4.3.5 of the SE discusses automatic water spray for the main power transformer, auxiliary transformer, and shutdown transformer. However, LRA drawing LRA-M-218-SH-01-0 and LRA-M-218-SH-05-0 show the Main Transformer Sprinkler System, Auxiliary Transformer Sprinkler System, Startup Transformer Sprinkler System, and Shutdown Transformer Sprinkler System, as out of scope of license renewal and AMR. Please confirm and explain whether these transformer sprinkler systems should be within scope for license renewal and subject to an AMR.

RAI 2.3.3.9-9

Section 4.3.5 of the SE states that new sprinkler systems were proposed for the radwaste truck loading area and the access control area of the radwaste and control building. PNPS UFSAR Section 10.8.3.1 identifies sprinkler system FP for the access control area (i.e., wet pipe) and the radwaste truck lock area (i.e., dry pipe). However, the LRA drawing LRA-M-218-SH-01-0 shows these areas as out of scope. Please clarify whether these systems are in scope for license renewal and subject to an AMR.

RAI 2.3.3.9-10

Section 4.8 of the SE discusses floor drains provided in all plant areas protected with fixed water fire suppression. LRA Section 2.3.3.9 states that structural FP components are reviewed in the structural evaluation for the building in which they are contained or in the structural bulk commodities review. However, LRA Tables 2.4-2, 2.4-3, 2.4-4, and 2.4-6 do not list floor drains as a FP component in scope for license renewal or an AMR. Should floor drains be included in scope for license renewal and subject to an AMR? If not, please provide justification for the exclusion.

Section 2.3.3.10 Fire Protection System–Halon

RAI 2.3.3.10-1

LRA drawing LRA-M-218-SH-04-0 shows a manual pneumatic actuator colored in purple (i.e., in scope). However, the actuator housing is not listed in LRA Table 2.3.3-10. Please clarify whether actuator housings are in scope and subject to an AMR. If not, please justify the exclusion.

RAI 2.3.3.10-2

Section 4.4 of the SE discusses carbon dioxide as a fixed fire suppression system for the cable spreading room, turbine building tank, and hose reels in the switchgear area, reactor feed pump area, and generator area. SE supplements discuss conversion of the carbon dioxide fixed suppression capability to a Halon fixed suppression capability for the cable spreading room and switchgear area. The status of the other areas (i.e., the turbine building tank and the hose reels in the reactor feed plump and generator areas) is unclear. Please clarify whether fixed suppression exists for these other areas. If there is suppression, please describe the type of suppression provided and explain whether it is in scope and why.

RAI 2.3.3.10-3

Section 4.4 of the SE states that a total flooding Halon extinguishing system will be installed for the computer and storage room, and PNPS FSAR Section 10.8.3.2 discusses automatic Halon suppression for the plant computer room and O&M building record storage vault. However, the LRA drawing LRA-M-218-SH-04-0, does not show the computer and storage room as in scope for license renewal and subject to an AMR. Furthermore, LRA Section 2.3.3-10 states that only passive mechanical components in the cable spreading room Halon system are required for compliance with 10 CFR 50.48 (fire protection regulations). However, please clarify whether these other areas are protected with automatic Halon suppression.