July 31, 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 (LRA) and has identified, in the enclosure, areas where additional information is needed to complete the review. These relate to Sections 2.2 Plant Level Scoping Results and 2.3 Scoping and Screening Results: Mechanical Systems.

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: See next page

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DATE	7/ 13 /06	7/ 13 /06	7/ 18 /06

OFFICIAL RECORD COPY

Letter to Michael Kansler from R. Subbaratnam dated July 31, 2006

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

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REQUEST FOR ADDITIONAL INFORMATION
PILGRIM NUCLEAR POWER STATION
LICENSE RENEWAL APPLICATION
BALANCE-OF-PLANT COMPONENTS

2.2: Plant Level Scoping Results

RAI-2.2-1

In licensing renewal application (LRA) Tables 2.2-1a and 2.2-2, the applicant identifies a listing of mechanical systems within the scope of license renewal and mechanical systems not within the scope of license renewal, respectively. The applicant identifies, in the first column of both tables, the system number, and in several cases, multiple system numbers for each corresponding system name. In LRA Section 2.2, third paragraph, the applicant states that the list of systems used in these tables and determination of system boundaries is based on maintenance rule scoping documents, the Q list, plant drawings, the [updated final safety analysis report] (UFSAR), and system design basis documents reviewed during scoping.

It is not clear whether all mechanical systems that are described in the UFSAR are included in the mechanical systems names contained in LRA Tables 2.2-1a and 2.2-2. In order to facilitate the staff's plant level scoping review, provide a complete cross reference list of mechanical systems names against system numbers and the specific source used for this cross reference.

RAI-2.2-2

In LRA Table 2.2-2, the applicant identifies the electrolytic hydrogen water chemistry system as a mechanical system not within the scope of license renewal, and identifies UFSAR Sections 10.21 and 10.22 as the reference for the system description.

In UFSAR Section 10.22.7.4, Limiting Transient Consequence, the applicant describes those hydrogen leaks that do not initiate automatic shutdown of the electrolytic hydrogen water chemistry system (EHWCS). The applicant states in the UFSAR that small leaks cannot lead to an accumulation of an explosive mixture of hydrogen and oxygen because the condenser bay and turbine buildings have sufficient forced ventilation to avoid combustible mixtures. The applicant, therefore, appears to be crediting the turbine building HVAC system to prevent an explosive mixture in the condenser bay and turbine buildings.

However, in LRA Section 2.3.3.11, the applicant does not identify this feature as an intended function for the turbine building HVAC system. Therefore, it is conceivable that an explosive mixture could accumulate, and potentially cause an explosion that could damage nearby equipment, some of which may be safety-related.

Justify the exclusion of the EHWCS from the scope of license renewal, or include the system in scope because of a 10 CFR 54.4(a)(2) effect, where a nonsafety related system such as EHWCS could detonate and prevent satisfactory accomplishment of safety-related structure, system and components which are relied upon to remain functional during and following design-basis events.

ENCLOSURE

2.3: Scoping and Screening Results: Mechanical Systems

2.3.3.2: Salt Service Water System

RAI-2.3.3.2-1

In LRA Section 2.1.2.1.3, the applicant states that the highlighting on the license renewal drawing indicates components subject to aging management review [(AMR)]. License Renewal drawing LR-M-212, sheet 1 shows the sluice gates (locations A-8 and A-3) and slide gate (location A-5) highlighted. However, they do not appear to be listed on LRA Table 2.3.3-2 as being subject to AMR. Clarify if these gates are listed on table 2.3.3-2 as being subject to AMR.

RAI-2.3.3.2-2

On page 10.7-2a of the FSAR, the applicant states, "to ensure that the safety design basis in Section 10.7.2 is achieved, flow condition is improved by the addition of baffle plates in the west side service water bay and a rear sluice gate allows maintenance and operational flexibility."

This statement implies that the baffle plates have an intended function in accordance with 10 CFR 54.4(a) and should therefore be within the scope of license renewal. Baffle plates are not shown on drawing LR-M-212-SH-01, nor do they appear to be listed on table 2.3.3-2. Clarify if the baffle plates are subject to AMR.

RAI-2.3.3.2-3

LRA Section 2.0, states that "the term ‘piping' in component lists may include pipe, pipe fittings (such as elbows and reducers), flow elements, orifices, and thermowells." On drawing LR-M-212, sheet 1, air vents (locations B-8, 7, 6, 5 and 4), were found as being subject to AMR. The air vents downstream piping and a portion of the air vents will have a normal internal environment of air. It is assumed that air vents are included in LRA Table 2.3.3-2 under component type piping. However, when reviewing LRA Table 3.3.2-2, the staff noted that there is no listing for piping with an internal environment of air.

Clarify whether the air vents and their downstream piping are included in component type "piping" and are subject to AMR, or add them to LRA Tables 2.3.3-2 and 3.3.2-2.

2.3.3.3: Reactor Building Closed Cooling Water System

RAI 2.3.3.3-1

License renewal drawings for the reactor building closed cooling water (RBCCW) system show that flexible hoses are within the 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).

Flexible hoses that appear on license renewal drawing LRA-M-215-SH-01 provide an intended function of pressure boundary and connect MG set area cooling coils VAC-207A, -207B, -207C, and -207D to the RBCCW system. Flexible hoses that appear on license renewal drawing LRA-M-215-SH-02 provide an intended function of pressure boundary and connect Core Spray Pump Motor Thrust Bearing P-215B cooling coils, RHR Pump Area Cooling Coils VAC-204C/D, and HPCI Pump Area Cooling Coils VAC-201A/B to the RBCCW system. Flexible hoses that appear on license renewal drawing LRA-M-215-SH-04 provide an intended function of pressure boundary and connect RCIC Pump Area Cooling Coils VAC-202A/B, Control Rod Drive Pump Area Cooling Coils VAC-203A/B, Clean-Up Recirc Pump P-204A/B Cooling System, RHR Pump Area Cooling Coils VAC-204A/B, and Core Spray Pump Motor Thrust Bearing P-215A cooling coils to the RBCCW system.

LRA Section 2.1.2.1.3 states that flexible hoses that are periodically replaced (not long-lived) and therefore not subject to aging management, are indicated on the drawings. These components are not specifically identified on the drawings as "not a long-lived component" and there are no flexible hoses listed as a component type in LRA Table 2.3.3-3.

Justify the exclusion of flexible hoses as a component type from LRA Table 2.3.3-3. If not, include flexible hoses in LRA Table 2.3.3-3 and describe their aging management program (AMP) in LRA Table 3.3.2-3.

RAI 2.3.3.3-2

Flow elements FE-6265, FE-6267, FE-9014, FE-6263, and FE-6269 on license renewal drawings LRA-M-215-SH-01at location E-8, LRA-M-215-SH-02 at location G-5/6, LRA-M-215-SH-03 at location E-4, and LRA-M-215-SH-04 at location C-7/8 respectively, are shown as included within the scope of license renewal for the RBCCW system and subject to an AMR. The flow elements control flow to create a pressure differential signal that is interpreted by their associated flow transmitters to control the system's intended functions.

There are no orifices listed as a component type in LRA Table 2.3.3-3 with an intended function of flow control. LRA Table 2.0-1 identifies a component intended function for flow control (FC) that is applicable to the flow elements.

Justify the exclusion of flow control as an intended function for flow elements in LRA Table 2.3.3-3 as a component intended function requiring aging management.

RAI 2.3.3.3-3

Y-strainers-4074 and 4078 on license renewal drawings LRA-M-215-SH-01 at location B-5 and LRA-M-215-SH-02 at location C/D-4 respectively, are shown as included within the scope of license renewal for the RBCCW system and subject to an AMR. The y-strainers perform a filtration intended function (FLT) to remove particulates from the treated water.

There are no strainers listed as a component type in LRA Table 2.3.3-3 with an intended function of filtration. LRA Table 2.0-1 identifies a component intended function for filtration (FLT) that is applicable to the y-strainers.

Justify the exclusion of filtration as an intended function for the y-strainers in LRA Table 2.3.3-3 as a component intended function requiring aging management.

RAI 2.3.3.3-4

Restricting orifices RO-4019 and RO-4017 on license renewal drawings LRA-M-215-SH-01 at location B-5 and LRA-M-215-SH-02 at location C/D-4 respectively, are shown as included within the scope of license renewal for the RBCCW system and subject to an AMR. The restricting orifices perform a flow restriction intend function (FC) to ensure proper system operation.

There are no restricting orifices listed as a component type in LRA Table 2.3.3-3 with an intended function of flow restriction. LRA Table 2.0-1 identifies a component intended function for flow control (FC) that is applicable to restricting orifices.

Justify the exclusion of flow control as an intended function for the restricting orifices in LRA Table 2.3.3-3 as a component intended function requiring aging management.

2.3.3.4: Emergency Diesel Generator System

RAI 2.3.3.4-1

Section 10.9.3.9 of the Pilgrim UFSAR states that "engine freeze protection is provided by the jacket water cooling system heater..." This heater is not shown on the referenced license renewal drawings, nor is it listed in LRA Table 2.3.3-4 as a component subject to an AMR. This heater provides a pressure boundary for the jacket water cooling system, and therefore, should be within the scope of license renewal. Additionally, the pressure retaining portion of the heater is a passive, long-lived component, and therefore, should be subject to AMR. Justify the exclusion of this component from an AMR.

RAI 2.3.3.4-2

License renewal drawing LRA-M-272-0 shows two aftercoolers at locations F/G-5 and B/C-5 as being within the scope of license renewal and subject to an AMR. The aftercoolers provide a pressure boundary and heat transfer intended function. However, aftercooler does not appear in LRA Table 2.3.3-4 as a component type subject to an AMR.

Confirm that aftercooler is a component type that is subject to an AMR, and is included within the component type of heat exchanger. If not, justify the exclusion of this component from an AMR.

RAI 2.3.3.4-3

License renewal drawing LRA-M-272-0 shows two turbochargers at locations A-6 and E-6 as being within the scope of license renewal and subject to an AMR since it provides a pressure boundary. LRA Table 2.3.3-4 lists the turbocharger housing as a component subject to an AMR, and correspondingly, LRA Table 3.3.2-4 lists the turbocharger material and environment. LRA Section 2.3.3.4 and license renewal drawing LRA-M-272-0 indicate that the turbocharger is cooled by the jacket water cooling system.

However, LRA Tables 2.3.3-4 and 3.3.2-4 do not list "heat transfer" as an intended function, and treated water as an internal environment, respectively.

Explain why "heat transfer" is not listed as an intended function of the turbocharger. Also, explain why the cooling water of the jacket cooling water system is not listed as an internal environment for the turbocharger.

RAI 2.3.3.4-4

Flexible hose and flexible connections are shown on the following license renewal drawings at the given locations as being within the scope of license renewal and subject to an AMR.

a. License renewal drawing LRA-M-271-0 at locations C-5, C-6, F-5, and F-6.
b. License renewal drawing LRA-M-259-0 at locations F-1, F-2, F-5 and F-6.

LRA Section 2.1.2.1.3 states that flexible hoses that are periodically replaced (not long-lived) and therefore not subject to aging management, are indicated on the drawings. These components are not specifically identified on the drawings as "not a long-lived component." These flexible connections or hoses provide a pressure boundary in the turbo air assist system and lube oil system. LRA Table 2.3.3-4 lists expansion joint (exhaust flex joint) as a component type subject to an AMR; however, LRA Table 3.3.2-4 does not have indoor air or lube oil as an internal environments.

Confirm that the flexible connections and hoses in question are long-lived, and therefore subject to an AMR. If so, confirm that the material and environment are subject to the appropriate AMP.

RAI 2.3.3.4-5

License renewal drawing LRA-M-272-0 indicates that the emergency diesel generator (EDGs) are equipped with crankcase exhausters (see locations B-7 and F-7). Failure of this exhauster can adversely impact the function of the EDGs. The exhauster is not depicted on the drawing as a component that is subject to an AMR. Explain why the exhausters in question are not subject to an AMR.

RAI 2.3.3.4-6

License renewal drawing LRA-M-272-0 shows jacket water radiators at locations C-2 and G-2 as being within the scope of license renewal and subject to an AMR since they provide a pressure boundary. Pilgrim UFSAR Section 10.9.3.9 states that, "The EDG jacket water pump circulates the engine coolant through the radiator tubes where it transfers engine heat to the air. The engine driven fan draws suction through each of the parallel radiators and discharges the heated air through a cylindrical discharge duct which exits at the roof." LRA Tables 2.3.3-4 and 3.3.2-4 contain entries for heat exchanger bonnet, shell, and tubes. However, there does not appear to be an entry for the radiator fins.

State whether the jacket water radiators contain fins for heat transfer. If so, state whether the fins are subject to an AMR. If not, justify the exclusion of this component type from an AMR.

2.3.3.5: Station Blackout Diesel Generator System

RAI 2.3.3.5-1

On license renewal drawing LRA-M-264-0, the applicant shows the following components as being within the scope of license renewal and subject to an AMR. These components provide the intended function of pressure boundary.

a. starting rack booster housing at location F-6
b. jacking gear air interrupter at location G-6
c. deaerator housing at location H-3
d. air cleaner housing at location E-4
e. drain trap at location F-7

However, these components are not specifically listed in LRA Table 2.3.3-5 as components subject to an AMR. Confirm that these components are subject to an AMR. If not, justify the exclusion of the component(s) from an AMR.

RAI 2.3.3.5-2

On license renewal drawing LRA-M-264-0, the applicant shows a turbocharger at location H-3 as being within the scope of license renewal and subject to an AMR since it provides a pressure boundary. LRA Table 2.3.3-5 lists the turbocharger housing as a component subject to an AMR, and correspondingly, LRA Table 3.3.2-5 lists the turbocharger material and environment. LRA Section 2.3.3.5 and license renewal drawing LRA-M-264-0 indicate that the turbocharger is cooled by the jacket water cooling system. However, LRA Tables 2.3.3-5 and 3.3.2-5 do not list "heat transfer" as an intended function, and treated water as an internal environment, respectively.

Explain why heat transfer is not listed as an intended function of the turbocharger. Also, explain why the cooling water of the jacket cooling water system is not listed as an internal environment for the turbocharger.

RAI 2.3.3.5-3

Flexible connections are shown on license renewal drawing LRA-M-264-0 at locations E-3, F-3, G-3, F-5/6, H-5, and G-7 as being within the scope of license renewal and subject to an AMR. These components are not specifically identified on the drawing as "not a long-lived component."

In LRA Section 2.1.2.1.3, the applicant states that flexible hoses that are periodically replaced (not long-lived) and therefore not subject to aging management, are indicated on the drawings.

These flexible connections provide the intended function of pressure boundary. LRA Table 2.3.3-5 does not list flexible hose or connections as a component type subject to an AMR. Confirm that the flexible connections in question are long-lived, and therefore subject to an AMR. If not, justify the exclusion of these components from an AMR.

RAI 2.3.3.5-4

On license renewal drawing LRA-M-264-0, the applicant shows jacket water immersion heaters at location G-2. The heaters are part of the jacket cooling water system which is a closed cooling water loop. Therefore, the heaters provide a pressure boundary. LRA Table 2.3.3-5 does not include the pressure retaining portion of the heaters as a component subject to an AMR. Justify the exclusion of this component from an AMR.

2.3.3.7: Fuel Oil System

RAI-2.3.3.7-1

In License Amendment 184 to the Pilgrim Facility Operating License, the licensing basis for the on-site fuel storage requirements for the EDG was modified. In addition, Technical Specification Bases were amended to reflect the new licensing basis. This change increased the amount of diesel fuel required to be stored on-site to assure sufficient supply of fuel oil to the EDGs from the EDG and Station Blackout Diesel Generator (SBODG) storage tanks. The Safety Evaluation Report to the License Amendment states that "the SBODG storage tanks are not connected to the EDG storage tanks and will require operator action to transfer fuel from the SBODG tanks to the EDG storage tank…The licensee's method of supplying fuel oil from the SBODG tanks to the EDG tanks requires the attachment of connections, hoses, and an air-powered pump to refill the EDGs from the SBODGs when needed. The required fittings and hardware accessories for refilling operations are prestaged and dedicated for the task."

This equipment provides functional support for the EDG which is safety-related equipment. Therefore, this transfer equipment should be within scope of license renewal and subject to an AMR. Verify that passive, long-lived components of this equipment are included in Table 2.3.3-7 and subject to AMR.

RAI- 2.3.3.7-2

In UFSAR Section 8.5.2, the applicant describes a hydroturbine that drives backup diesel fuel transfer pump (P-181). This pump is a redundant diesel fuel oil transfer pump for the diesel fire pump P-140. In LRA Section 2.3.3.14 (page 2.3-65), the applicant states, "Unless specifically excluded, all non-safety-related components in a system determined to be in scope for 54.4(a)(2) for spatial interaction are subject to AMR. Components are excluded from review if their location is such that safety-related equipment cannot be impacted by component failure." Based on the above information, it appears that pump P-181 should be within the scope of license renewal for purposes of 10 CFR 54.4(a)(2). In LRA Tables 2.3.3-14-13 and 3.3.2-14-13, Fuel Oil Storage and Transfer System Nonsafety Related Components affecting Safety Related Systems Components Subject to an AMR, the applicant has an entry for component type pump casing, with appropriate material and environment combination that is subject to an AMR.

However, in LRA Tables 2.3.3-14-12 and 3.3.2-14-12, Fire Protection System Nonsafety Related Components affecting Safety Related Systems Components Subject to an AMR, the applicant does not include component type pump casing with appropriate material and environment combination that is subject to an AMR. Justify the exclusion of the hydroturbine portion of the diesel fire pump (P-181) from the scope of license renewal.

RAI 2.3.3.7-3

License renewal drawing LRA-M-264-0, Note 15 states that "there is a rain tight lid under manhole cover..." LRA Tables 2.3.3-7 and 3.3.2-7 contain entries for component type "tank." However, there does not appear to be an entry for the rain tight lid. State whether the rain tight lid is composed of a different material than indicated for the component type "tank." If so, state whether the lid is subject to an AMR. If not, justify the exclusion of this component type from an AMR.

RAI 2.3.3.7-4

License renewal drawing LRA-M-264-0 at locations A-6 and A-8 show ladders and check valves (38-CK-168A and 38-CK-168B) as components not subject to an AMR. Additionally, at locations A-6 and A-7, there are 4 inch "FRP" lines that are not shown as subject to an AMR.

State whether failure of these internal components could prevent the station blackout diesel fuel oil storage tanks from performing their intended function.

2.3.3.8: Compressed Air (Instrument Air) System

RAI 2.3.3.8-1

In LRA section 2.3.3.8 for the Compressed Air (Instrument Air) System, the applicant states the following on page 2.3-41: "The instrument air system contains separate accumulators and tanks that store high pressure air or nitrogen for operation of safety-related equipment (main steam safety valves, nuclear system pressure relief valves, torus vacuum breakers, standby gas treatment system dampers, and EDG dampers)." License renewal drawings LRA-M-220-SH-03 and LRA-M-252-SH-01 have been reviewed and there are no instrument air components indicated within the scope of license renewal in accordance with 10 CFR 54.4 associated with main steam safety valves. However, on drawing LRA-M-252-SH-01 there are instrument air components indicated within the scope of license renewal and subject to an AMR in accordance with 10 CFR 54.21(a) associated with the four inboard and four outboard "main steam isolation valves."

Explain why "main steam safety valves" are listed in the above sentence from the LRA instead of inboard and outboard "main steam isolation valves." If instrument air components associated with the main steam safety valves are in the scope of license renewal and subject to AMR, provide a drawing they are shown on.

RAI 2.3.3.8-2

In LRA section 2.3.3.8 for the Compressed Air (Instrument Air) System, the applicant states the following on page 2.3-42: "Additional details for the components subject to aging management review are provided in the following license renewal drawings." One of the license renewal drawings listed is LRA-M-250-SH-01 for the Control Rod Drive Hydraulic System. PCV's 302-89A (location A-5), 302-89B (location B-5), and 302-89C (location B-5), and SV's 302-26A (location G-6) and 302-26B (location F-6) on license renewal drawing LRA-M-250-SH-01 have a system intended function boundary flag at each end of the valve symbol pointing toward the valve. However, there are no instrument air system components color coded to indicate that they are subject to AMR.

Explain how these six valves alone by themselves perform an intended function in accordance with 10 CFR 54.4 and yet are not subject to an AMR in accordance with 10 CFR 54.21(a).

RAI 2.3.3.8-3

On license renewal drawing LRA-M-67-96 at location D-2, the applicant shows an instrument air system line color coded as within the scope of license renewal and subject to AMR. Also shown at this location, the applicant indicates the instrument air line continues onto license renewal drawing LRA-M-219 at location F-5. A review of drawing LRA-M-219 at location F-5 does not find a drawing reference continuation flag indicating drawing LRA-M-67-96 and location D-2.

Clarify the instrument air system license renewal boundary interface between license renewal drawing LRA-M-219 at location F-5 and license renewal drawing LRA-M-67-96 at location D-2.

RAI 2.3.3.8-4

In FSAR Section 10.11, Instrument and Service Air Systems, on page 10.11-2, the applicant states the following: "A 3" back-up air supply system was added to the Instrument Air system, tying into the permanent plant hardpipe connection from the outside of the turbine building where it is connected to a diesel driven oil-free air compressor. This back-up source of instrument air is used for station black-out conditions and/or to provide additional air for times when the system is not available due to maintenance."

Justify the exclusion of the intended function for 10 CFR 54.4(a)(3) of supporting backup source of instrument that is credited in Station Blackout (SBO) regulations (10 CFR 50.63) from LRA Section 2.3.3.8, or include this system intended function. Identify and provide the drawing number where the SBO 3" back-up air supply system is depicted.

2.3.3.13: Fuel Pool Cooling and Fuel Handling and Storage Systems

RAI 2.3.3.13-1

On license renewal drawing LR-M-241-SH-01 for the Fuel Pool Cooling and Fuel Handling and Storage system, the applicant shows that spectacle flange RO-1001-75 is installed to utilize augmented fuel pool cooling (AFPC). In FSAR Sections 4.8.5 and 10.4, the applicant describes the operation of the AFPC modes from the safety related RHR system. The sections describe the system inter-tie and the consequences of a postulated pipe break on the RHR system. When placed in service, restricting orifice RO-1001-75 limits flow from the RHR system in the event of a break in the FPC piping. The mitigation of the subsequent drain down of the reactor basin requires operator action. The time to accomplish the actions is based on the flow from the FPC pipe break.

Based on the FSAR information, the staff believes that RO-1001-75 supports RHR system intended functions by providing flow control. Therefore RO-1001-75 when placed in service meets criteria 10 CFR 54.4 (a)(2) for functional support to a safety related system, with a component intended function of flow control.

Neither LRA Table 2.3.3-13 nor 2.3.3-14-14 include a component type of orifice with an intended function of flow control.

Explain the exclusion of flow control as an intended function requiring aging management for the component type orifice.

RAI 2.3.3.13-2

On license renewal drawing LR-M-231-SH 1 for the Fuel Pool Cooling and Fuel Handling and Storage system, the applicant shows that removable screens attached to lines 4"-HE-19 and 3"-HE-19 for the dryer and separator pool and fuel pool gate drains respectively are excluded from AMR. The actual lines are highlighted indicating that they are subject to AMR.

Explain whether the entire screen assembly including the pressure retaining portion is subject to AMR in accordance with 10 CFR 54.4(a), or justify its exclusion.

2.3.4.4: Main Condenser System

RAI 2.3.4.4-1

In FSAR Section 11.3.3, the applicant describes a sight glass level indicator as being located on the outlet of each water box to aid in evaluation of the scavenging system and/or condenser performance. A sight glass level indicator and associated tubing provide the intended function of pressure boundary integrity for the main condenser. Component type sight glass indicator, or “LG” on P&ID Legend drawing M-200-SH 1, does not appear on LRA Table 2.3.4-2.

Justify the exclusion of component type sight glass indicator from being included within the scope of license renewal and subject to an AMR or include it on the LRA Table 2.3.4-2 and 3.4.2-2 with an appropriate AMP.

RAI 2.3.4.4-2

On license renewal drawings LRA-M-203-SH-1 at location C-5, and LRA-M-226-SH 1 at location F-8, the highlighted license renewal boundary ends at normally open valves. Failure of downstream piping can impact the intended function of the system (e.g., pressure boundary).

Justify ending the boundary as highlighted or describe the license renewal boundary on drawings for components downstream that are in the scope of license renewal in accordance with 10 CFR 54.4(a)(2) .

RAI 2.3.4.4-3

In LRA Section 2.0, the applicant states that if components have unique tag numbers or the specific component has a function other than pressure boundary, then flow elements, orifices and thermowells are identified as a separate component type.

On license renewal drawing LRA-M-203-SH-1 at location C-7, the applicant shows a restricting orifice RO-3058, that is highlighted meaning that it is subject to an AMR in accordance with 10 CFR 54.21(a). Although an orifice is listed as a component type in LRA Table 2.3.4-2 with an intended function of pressure boundary, restricting orifices also have a flow control intended function.

Justify excluding the flow control component intended function for the restricting orifice from being subject to AMR, or include it in LRA Tables 2.3.4-2 and 3.4.2-2.