January 19, 2005

LICENSEE: Nuclear Management Company, LLC

FACILITY: Point Beach Nuclear Plant, Units 1 and 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE HELD ON JANUARY 10, 2005, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND NUCLEAR MANAGEMENT COMPANY, LLC, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2, LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission staff (the staff) and representatives of Nuclear Management Company, LLC (NMC) held a telephone conference on January 10, 2005, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Point Beach Nuclear Plant, Units 1 and 2, license renewal application. The conference call was useful in clarifying the intent of the staff's RAIs.

Enclosure 1 provides a listing of the meeting participants. Enclosure 2 contains a listing of the RAIs discussed with the applicant, including a brief description on the status of the items. Enclosure 3 contains draft responses provided by the applicant.

The applicant had an opportunity to comment on this summary.

M.Morgan /RA/
for
Verónica M. Rodríguez, Project Manager
License Renewal Section A
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket Nos. 50-266 and 50-301

Enclosures: As stated

cc w/encls: See next page

January 19, 2005

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Enclosure 1 provides a listing of the meeting participants. Enclosure 2 contains a listing of the RAIs discussed with the applicant, including a brief description on the status of the items. Enclosure 3 contains draft responses provided by the applicant.

The applicant had an opportunity to comment on this summary.

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for
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License Renewal Section A
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Enclosures: As stated
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TO DISCUSS THE POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
JANUARY 10, 2005

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| G. Suber | Nuclear Regulatory Commission |
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Enclosure 1

DRAFT REQUESTS FOR ADDITIONAL INFORMATION (RAI)
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION

January 10, 2005

The U.S. Nuclear Regulatory Commission staff (the staff) and representatives of Nuclear Management Company, LLC (NMC) held a telephone conference call on January 10, 2005, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Point Beach Nuclear Plant, Units 1 and 2, license renewal application (LRA). The following RAIs were discussed during the telephone conference call.

**Section 2.3.3 Auxiliary Systems**

**2.3.3.2 Component Cooling Water System Requests for Additional Information (RAIs)**

RAI 2.3.3.2-1

The Point Beach Updated Final Safety Analysis Report (PBNP UFSAR) Section 9.1 states that the CCW system removes heat from the Reactor Coolant Pump (RCP) thermal barrier cooling coils to ensure RCS integrity. License renewal drawing LR-110E029 Sheet 2 (in quadrants B-5 and B-8) Note 3 and drawing LR-110E018 Sheet 2 (quadrants B-5 and B-8) Note 6 indicate a Swagelock 1 ¼" DIA. S.S. Flexible Metal Hose is used as a piping component on the inlet and outlet of the RCPs. This flexible metal hose is shown on the drawings as within the scope of license renewal. If these hoses have been screened in and included as passive components then Table 3.3.2-2 Auxiliary Systems - Component Cooling Water System - Summary of Aging Management Evaluation should have included an entry for stainless steel piping and fittings in this environment. No such entry could be found. Therefore, it is not clear if these flexible metal hose connectors are included in Table 2.3.3-2 as part of the piping and fittings component group. A degraded flexible metal hose connector could adversely impact the pressure boundary function of the CCW system. Provide additional clarification on these flexible metal hose connectors as to whether they are included in Table 2.3.3-2 as part of the piping and fittings component group and are considered to be in-scope for license renewal and subject to an AMR.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

**2.3.3.3 Spent Fuel Pool Cooling System RAIs**

RAI 2.3.3.3 - 1

The PBNP UFSAR Section 9.9.2 System Design and Operation (Paragraph 2) states, "The spent fuel pool cooling system piping and service water system piping supplying the spent fuel pool heat exchangers are classified Safety-Related, Seismic Class I." The spent fuel pool license renewal drawing LR-110E018 Sheet 4 (quadrant H-5) shows the service water discharge piping from the spent fuel pool cooling heat exchangers (HX-13A and HX-13B)

downstream of the flow control valves as out-of-scope. This is inconsistent with the Service Water license renewal drawing LR-M-207, Sheet 3 that shows the piping downstream of the discharge flow control valves as in-scope. Clarify whether this section of service water piping at the boundaries of the Spent Fuel Pool Cooling system is in-scope or not. If this section of piping is not in-scope, provide justification for exclusion.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.3 - 2

The spent fuel pool cooling piping network downstream of the heat exchanges has a branch going to out-of-scope piping and components leading from the skimmer pump. The license renewal drawing LR-110E018 Sheet 4 in quadrant F-2 shows the in-scope boundary stopping in the middle of a piping run and not including the skimmer pump discharge isolation valve 793A. Other branch lines leading off of the Spent Fuel Pool System include at least one isolation valve in-scope. Failure of the out-of-scope piping or the out-of-scope skimmer pump system may affect the pressure boundary integrity intended function of this piping segment. Justify your determination to exclude the piping up to and including the 793A isolation valve body from the scope of license renewal.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

**2.3.3.5 Service Water System RAIs**

RAI 2.3.3.5 - 1

The PBNP UFSAR Section 9.6 states that the Service Water (SW) system shall provide sufficient flow to support the heat removal requirements of components required to mitigate the consequences of a Loss of Coolant Accident (LOCA) in one unit, while supporting the normal flow of the unaffected unit. License renewal drawing LR-M-207 sheet 1A shows three pipe stubs without isolation valves off the SW pressure boundary (listed below) as not in-scope for license renewal. License renewal application section 2.3.3.5 states that the SW piping and fittings are in-scope as a pressure boundary. Failure of these sections of piping could affect the pressure boundary function of the SW system. Justify that the three piping areas listed below are not in-scope for license renewal and subject to an AMR.

a. Cap on 4"-JB-2 piping, location G-5.
b. Pipe stub and cap downstream of valve SW-48, location C-4.
c. Pipe stub and cap downstream of valve SW-57, location D-4.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.5 - 2

The PBNP UFSAR Section 9.6.1 states that the SW system shall provide sufficient flow to support the heat removal requirements of components required to mitigate the consequences of a Loss of Coolant Accident (LOCA) in one unit, while supporting the normal flow of the unaffected unit. License renewal drawing LR-M-207 Sheets 1, 2 & 3 show seven valve actuators (listed below) as out-of-scope for license renewal. License renewal application Section 2.3.3.5 states that the SW valve bodies are in-scope as a pressure boundary. The seven valve actuators are not shown in a manner that is consistent with other similar valves in the SW system. Clarify which portions of these valves (depicted below) have pressure boundary functions, and should be in-scope for license renewal and subject to an AMR.

a. LR-M-207 Sheet 1 - Actuator for BS-2911, location G-3.
b. LR-M-207 Sheet 2 - Actuator for valve SW-1-401G, location F-7.
c. LR-M-207 Sheet 2 - Actuator for strainer Z-104A, location G-6.
d. LR-M-207 Sheet 3 - Actuator for valve SW-12A, location E-9.
e. LR-M-207 Sheet 3 - Actuator for valve TCV-12B, location E-7.
f. LR-M-207 Sheet 3 - Actuator for valve TCV-12C, location E-7.
g. LR-M-207 Sheet 3 - Actuator for valve SW-12D, location E-6.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.5 - 3

The PBNP UFSAR Section 9.6.2 states that the SW system, serving both units, supplies cooling water to equipment in the steam plant, to the containment ventilation coolers and to reactor auxiliary systems. Nonessential services in each unit receive water from their respective header (North or South). License renewal drawing LR-M-207 Sheet 2 shows equipment around strainer Z-104A as in-scope for license renewal. License renewal application Section 2.3.3.5 states portions of the SW system contain components subject to an AMR extend from pump bays to the Circulating Water discharge, including connections to the suction of the Auxiliary Feedwater pumps, or the Fire Protection system, including pumps, heat exchangers, strainers, piping and valves. The transition location from out-of-scope to in-scope is not clearly marked for the following two locations:

a. LR-M-207 Sheet 2, 3"-JB-1, location F-6
b. LR-M-207 Sheet 2, 6"-JB-1, location F-7

Provide additional information to clarify the exact locations of these two transitions and which sections are in-scope and which are out-of-scope for license renewal.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.5 - 4

The PBNP UFSAR Section 9.6.1 states that the SW system shall provide sufficient flow to the spent fuel pool heat exchangers to provide adequate heat removal of spent fuel decay heat.

On license renewal drawing LR-M-207 Sheet 3, the piping downstream of valve SW-750, at location C-7, the marking is not legible as to whether this piping is in-scope or out-of-scope. Provide additional information for this section of piping to clearly show which sections are in-scope and which are out-of-scope for license renewal.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.5 - 5

The PBNP UFSAR Section 9.6 states that return from the SW system is directed to the return line of the Circulating Water system. License renewal drawing LR-M-207 Sheet 1 shows SW system piping 20"-JB-2 returning to the Circulating Water system as in-scope for license renewal. License renewal application Section 2.3.3.5 states much of the SW return header is not safety related, but was included in-scope up to manual isolation valves, per 10 CFR 54.4(a)(2) Criterion 2. The transition location from in-scope (Service Water) to out-of-scope (Circulating Water) is not clearly marked at the following two locations:

a. LR-M-212 Sheet 1, 20"-JB-2, location F-8.
b. LR-M-2212, 20"-JB-2, location A-7.

Provide additional information to clarify the exact locations of these two transitions to clearly show which sections are in-scope and which are out-of-scope for license renewal.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

**2.3.3.7 Heating Steam System RAIs**

RAI 2.3.3.7-1

As described in the LRA, the Heating Steam system does not perform any safety-related functions. However, certain portions of the Heating Steam system are in-scope for License Renewal in accordance with 10 CFR 54.4(a)(2). Portions of the non-safety-related Heating Steam system in the PAB have the potential to affect the function of safety-related equipment. License renewal drawing LR-M-214 Sheet 1 depicts heat exchangers HX-97A, HX-97B, HX-86A, HX-86B, HX-35A, HX-35B 1HX-77A and 1HX-77B as within the scope of license renewal. However, Table 2.3.3-7 does not indicate that Heating Steam system heat exchangers are components requiring an AMR. If the Heating Steam system heat exchangers are within the scope of license renewal as shown on the license renewal drawings, provide additional information or explain the reason for not including these heat exchangers in Table 2.3.3-7 and/or in Tables 3.3.2-15.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

**2.3.3.11 Treated Water System RAIs**

RAI 2.3.3.11 - 1

The PBNP LRA Section 2.3.3.11 states the shear gate valves in the G01 and G02 rooms' oily sumps are within scope. In addition, the PBNP LRA states these are NSR SSC whose failure has an affect on the function of safety-related equipment and are therefore within scope. The PBNP LRA drawing LR-M-223 Sheet 3 at location F-2 indicates STP-15 and 14 are in the G02 room and are within scope. The shear gate valves for Room G01 could not be located on the license renewal drawings. Identify and/or provide additional information concerning the location of the shear gate valves associated with Room G01 that are called out in the PBNP LRA as within scope and subject to AMR in accordance with 10 CFR 54.21(a)(1).

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.11 - 2

The PBNP LRA states all non-safety-related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified within 10 CFR 54.4.(a)(1) (i), (ii), or (iii) shall be considered within scope of the LRA. Inconsistencies within the waste disposal system license renewal drawings were identified as follows: Piping segments identified on PBNP LRA drawing LR-PBM-231, Sheet 2 at locations B-3, D-4, and B-9; drawing LR-M-223, Sheet 3 at locations E-8 and H-8; and drawing LR-PBM-231, Sheet 1 at location B-3 are designated to be within scope; however, the basis for these determinations is not explained. If these piping segments can adversely impact the function of safety-related SSCs, identify these safety-related SSCs that could be impacted by these piping segments, and provide additional information and the drawing LR-PBM-231, Sheet 2, to allow verification that they have been properly identified to be within the scope of license renewal and subject to AMR in accordance with 10 CFR 54.21(a)(1).

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

**2.3.3.12 Circulating Water System RAIs**

RAI 2.3.3.12 - 1

The PBNP LRA Section 2.3.3.12 states that portions of the Circulating Water system are considered to be in-scope per 10 CFR 54.4(a)(2) Criterion 2 due to the potential for flooding or spray to affect the function of the safety related Service Water (SW) pumps. The Criterion 2 scoping results for portions of the Circulating Water system that are in-scope for license renewal are identified on drawing LR-PBM-232 at location D5. This drawing indicates that the chlorination piping to the SW pump pits to the suction of Circulating Pumps 2P-30A and 30B are in-scope; however, the same line to Circulating Pumps 1P-30A and 30B are shown as not in-scope. Provide the basis for not considering chlorination piping between isolation valves CD-46 and 47 to the suction of Circulating Pumps 1P-30A and 30B in-scope for license renewal.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

RAI 2.3.3.12 - 2

The PBNP LRA Section 2.3.3.12 states that portions of the Circulating Water system are considered to be in-scope per 10 CFR 54.4(a)(2) Criterion 2 due to the potential for flooding or spray to affect the function of the safety-related Service Water (SW) pumps. Drawings LR-M-212, Sheet 1 and LR-M-2212 show the portions of the Circulating Water system that are in-scope for license renewal. The scoping review in the LRA state that the pumps, discharge valves, expansion joints and associated piping within the CW pump house structure are in-scope; however, pressure taps (1PI3503 and 3504, and 1PI3503 and 3504) on the discharge of circulating water pumps 1-P30A and 30B and 2-P30A and 30B are not included in-scope. Provide additional information and technical justification for omitting the pressure taps (1PI3503 and 3504, and 1PI3503 and 3504) on the discharge of circulating water pumps 1-P30A and 30B and 2-P30A and 30B from the scope of license renewal.

**Discussion**: The applicant clarified their draft response. The applicant will provide their formal response in writing.

**ENCLOSURE**

**POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2**
**LICENSE RENEWAL APPLICATION (LRA)**
**REQUESTS FOR ADDITIONAL INFORMATION (RAIs)**

**Section 2.3.3 Auxiliary Systems**

**2.3.3.2 Component Cooling Water System Requests for Additional Information (RAIs)**

**NRC Question RAI 2.3.3.2-1**

The Point Beach Updated Final Safety Analysis Report (PBNP UFSAR) Section 9.1 states that the CCW system removes heat from the Reactor Coolant Pump (RCP) thermal barrier cooling coils to ensure RCS integrity. License renewal drawing LR-110E029 Sheet 2 (in quadrants B-5 and B-8) Note 3 and drawing LR-110E018 Sheet 2 (quadrants B-5 and B-8) Note 6 indicate a Swagelock 1 %" DIA. ***S.S.*** Flexible Metal Hose is used as a piping component on the inlet and outlet of the RCPs. This flexible metal hose is shown on the drawings as within the scope of license renewal. If these hoses have been screened in and included as passive components then Table 3.3.2-2 Auxiliary Systems - Component Cooling Water System - Summary of Aging Management Evaluation should have included an entry for stainless steel piping and fittings in this environment. No such entry could be found. Therefore, it is not clear if these flexible metal hose connectors are included in Table 2.3.3-2 as part of the piping and fittings component group. A degraded flexible metal hose connector could adversely impact the pressure boundary function of the CCW system. Provide additional clarification on these flexible metal hose connectors as to whether they are included in Table 2.3.3-2 as part of the piping and fittings component group and are considered to be in-scope for license renewal and subject to an AMR.

**NMC Response:**

Since this flex hose did not have a unique component ID, the component was not included during the initial reviews for License Renewal. We will add line items to Table 3.3.2-2 to include the material stainless steel under the "Piping and Fittings" Component Type, to address this flexible tubing as part of the License Renewal Application (LRA) annual update. This will be age managed similar to other stainless steel components in the Component Cooling Water system, via a combination of the Closed Cycle Cooling Water Program and the One-Time Inspection Program.

**2.3.3.3 Spent Fuel Pool Cooling System RAIs**

**NRC Question RAI 2.3.3.3-1**

The PBNP UFSAR Section 9.9.2 System Design and Operation (Paragraph 2) states, "The spent fuel pool cooling system piping and service water system piping supplying the spent fuel pool heat exchangers are classified Safety-Related, Seismic Class I." The spent fuel pool license renewal drawing LR-110E018 Sheet 4 (quadrant H-5) shows the service water

discharge piping from the spent fuel pool cooling heat exchangers (HX-13A and HX-13B) downstream of the flow control valves as out-of-scope. This is inconsistent with the Service Water license renewal drawing LR-M-207, Sheet 3 that shows the piping downstream of the discharge flow control valves as in-scope. Clarify whether this section of service water piping at the boundaries of the Spent Fuel Pool Cooling system is in-scope or not. If this section of piping is not in-scope, provide justification for exclusion.

**NMC Response:**

This was a drawing error. The Service Water piping downstream of the flow control valves is in-scope (as shown on drawing LR-M-207 Sh. 3), and subject to aging management.

**NRC Question RAI 2.3.3.3-2**

The spent fuel pool cooling piping network downstream of the heat exchanges has a branch going to out-of-scope piping and components leading from the skimmer pump. The license renewal drawing LR-110E018 Sheet 4 in quadrant F-2 shows the in-scope boundary stopping in the middle of a piping run and not including the skimmer pump discharge isolation valve 793A. Other branch lines leading off of the Spent Fuel Pool System include at least one isolation valve in-scope. Failure of the out-of-scope piping or the out-of-scope skimmer pump system may affect the pressure boundary integrity intended function of this piping segment. Justify your determination to exclude the piping up to and including the 793A isolation valve body from the scope of license renewal.

**NMC Response:**

This branch connection does have an isolation valve (valve # 28 at location G,3), which is also the safety-related boundary valve for this system. Valve #28 can be shut to ensure maintaining the intended functions of the Spent Fuel Pool System (pumps, HXs, etc.), should leakage develop in either the skimmer pump branch piping or the demineralizer return branch piping. Portions of these branch connections were included in-scope for 10 CFR 54.4(a)(2), due to the potential for leakage or spray to affect the safety-related spent fuel pool pumps. (See LRA Table 2.1.2.1-1, p. 2-28, third line item from top.) Although difficult to show on a drawing, the in-scope portions of these non-safety related branch connections were determined during plant walkdowns and transitions are shown at the points where the branch lines exited the room/area. Therefore, the scoping boundary may appear in the middle of a piping run and not at an isolation valve. Failure of the out-of-scope piping or skimmer pump sub-system will have no affect on the License Renewal (LR) intended functions of the Spent Fuel Pool System.

**2.3.3.5 Service Water System RAIs**

**NRC Question RAI 2.3.3.5-1**

The PBNP UFSAR Section 9.6 states that the Service Water (SW) system shall provide sufficient flow to support the heat removal requirements of components required to mitigate the consequences of a Loss of Coolant Accident (LOCA) in one unit, while supporting the normal flow of the unaffected unit. License renewal drawing LR-M-207 sheet 1A shows three pipe stubs without isolation valves off the SW pressure boundary (listed below) as not

in-scope for license renewal. License renewal application section 2.3.3.5 states that the SW piping and fittings are in-scope as a pressure boundary. Failure of these sections of piping could affect the pressure boundary function of the SW system. Justify that the three piping areas listed below are not in-scope for license renewal and subject to an AMR.

a. Cap on 4"-JB-2 piping, location G-5.
b. Pipe stub and cap downstream of valve SW-48, location C-4.
c. Pipe stub and cap downstream of valve SW-57, location D-4.

**NMC Response:**

These three instances identified are all drawing errors, and the identified components were already considered to be in-scope and subject to aging management. These three instances are represented in Table 3.3.2-5 in the 'Piping and Fittings' component type, and are all managed by the Open Cycle Cooling Water System Surveillance Program.

**NRC Question RAI 2.3.3.5-2**

The PBNP UFSAR Section 9.6.1 states that the SW system shall provide sufficient flow to support the heat removal requirements of components required to mitigate the consequences of a Loss of Coolant Accident (LOCA) in one unit, while supporting the normal flow of the unaffected unit. License renewal drawing LR-M-207 Sheets 1, 2 & 3 show seven valve actuators (listed below) as out-of-scope for license renewal. License renewal application Section 2.3.3.5 states that the SW valve bodies are in-scope as a pressure boundary. The seven valve actuators are not shown in a manner that is consistent with other similar valves in the SW system. Clarify which portions of these valves (depicted below) have pressure boundary functions, and should be in-scope for license renewal and subject to an AMR.

a. LR-M-207 Sheet 1 - Actuator for BS-2911, location G-3.
b. LR-M-207 Sheet 2 - Actuator for valve SW-1-401G, location F-7.
c. LR-M-207 Sheet 2 - Actuator for strainer Z-104A, location G-6.
d. LR-M-207 Sheet 3 - Actuator for valve SW-l2A, location E-9.
e. LR-M-207 Sheet 3 - Actuator for valve TCV-l2B, location E-7.
f. LR-M-207 Sheet 3 - Actuator for valve TCV-l2C, location E-7.
g. LR-M-207 Sheet 3 - Actuator for valve SW-l2D, location E-6.

**NMC Response:**

For all of the above identified components, the pressure boundary portion (valve body or strainer body) was already considered to be in-scope, and is being age managed as noted in the applicable line items of Table 3.3.2-5. These actuators were originally shown to be out-of-scope based on their current licensing basis (CLB) functions. It was determined that the actuators would not affect the pressure boundary function of these components. Additional details for each item are included below.

a.) BS-2911 and BS-2912 are Zurn strainers on the main discharge header. Originally, these motor operators were considered to be out-of-scope based on the plant's Q-list information. Should this change in the future to be in-scope (currently being evaluated), no aging management would be required for the motor operators since these are active components. The bodies of these strainers were originally included in-scope, and are represented in Table 3.3.2-5 by the 'Filters/Strainers' component type, which have both a "Pressure boundary" and a "Provide filtration" component intended function.

b. and c.) These two components are associated with the non-safety related Zurn strainer that supplies non-essential service water (SW) to the U1 Turbine Hall loads. These components were shown in-scope due to 10 CFR 54.4(a)(2), because of their location in the Auxiliary Feedwater pump room (potential to affect safety related (SR) equipment in this room via leakage, spray or flooding). The only LR intended function therefore is pressure boundary, which is addressed in Table 3.3.2-5 under the "Filters/Strainers" and "Valve Bodies" component types. The actuators have no impact on the pressure boundary, and are therefore not in scope.

d. thru g.) These four components are flow control valves that are used to control temperature on the Component Cooling Water HXs. All of these actuators are fail-open actuators, and were determined to not have the potential to affect the pressure boundary of the valve body. Even if the actuators were considered in-scope, they would be active components and no aging management would be required. The pressure boundary portion (valve bodies) for all four of these valves are already in-scope, and are addressed in the "Valve Bodies" component type in Table 3.3.2-5.

**NRC Question RAI 2.3.3.5-3**

The PBNP UFSAR Section 9.6.2 states that the SW system, serving both units, supplies cooling water to equipment in the steam plant, to the containment ventilation coolers and to reactor auxiliary systems. Nonessential services in each unit receive water from their respective header (North or South). License renewal drawing LR-M-207 Sheet 2 shows equipment around strainer Z-104A as in-scope for license renewal. License renewal application Section 2.3.3.5 states portions of the SW system contain components subject to an AMR extend from pump bays to the Circulating Water discharge, including connections to the suction of the Auxiliary Feedwater pumps, or the Fire Protection system, including pumps, heat exchangers, strainers, piping and valves. The transition location from out-of-scope to in-scope is not clearly marked for the following two locations:

a. LR-M-207 Sheet 2, 3"-JB-l, location F-6
b. LR-M-207 Sheet 2, 6"-JB-l, location F-7

Provide additional information to clarify the exact locations of these two transitions and which sections are in-scope and which are out-of-scope for license renewal.

**NMC Response:**

The piping sections identified above are associated with the non-safety related zurn strainer that supplies non-essential SW to the Unit 1 Turbine Hall loads. These components were shown in-scope due to 10 CFR 54.4(a)(2), because of their location in the Auxiliary Feedwater pump room (potential to affect safety-related equipment in this room via leakage, spray or

flooding). See LRA Table 2.1.2.1-1, p. 2-27, second line item from bottom. Although difficult to show on a drawing, the in-scope portions of these non-safety related piping sections were determined during plant walkdowns and transitions are shown at the points where the piping exited the room. Therefore, the scoping boundary may appear in the middle of a piping run and not at an isolation valve.

See similar arrangement on LR-M-2207 Sh. 1 for Z-104B. This drawing more clearly indicates Control Building (CB) to Turbine Building (TB) boundary, where the piping would exit the room, and the transition from in-scope to out-of-scope is made.

**NRC Question RAI 2.3.3.5-4**

The PBNP UFSAR Section 9.6.1 states that the SW system shall provide sufficient flow to the spent fuel pool heat exchangers to provide adequate heat removal of spent fuel decay heat. On license renewal drawing LR-M-207 Sheet 3, the piping downstream of valve SW-750, at location C-7, the marking is not legible as to whether this piping is in-scope or out-of-scope. Provide additional information for this section of piping to clearly show which sections are in-scope and which are out-of-scope for license renewal.

**NMC Response:**

The piping components downstream of SW-750 are a pipe stub and cap. SW-750 is a normally closed valve, and the downstream pipe stub and cap are not in scope, as they have no license renewal intended function. This is similar to many other normally closed vent or drain valves shown on this drawing in the immediate vicinity of SW-750.

**NRC Question RAI 2.3.3.5-5**

The PBNP UFSAR Section 9.6 states that return from the SW system is directed to the return line of the Circulating Water system. License renewal drawing LR-M-207 Sheet 1 shows SW system piping 20"-JB-2 returning to the Circulating Water system as in-scope for license renewal. License renewal application Section 2.3.3.5 states much of the SW return header is not safety related, but was included in-scope up to manual isolation valves, per 10 CFR 54.4(a)(2) Criterion 2. The transition location from in-scope (Service Water) to out-of-scope (Circulating Water) is not clearly marked at the following two locations:

a. LR-M-212 Sheet 1, 20"-JB-2, location F-8.
b. LR-M-2212, 20"-JB-2, location A-7.

Provide additional information to clarify the exact locations of these two transitions to clearly show which sections are in-scope and which are out-of-scope for license renewal.

**NMC Response:**

This is a drawing error. The SW return header is in-scope up to the circ water return header. This was correctly shown on LR-M-207 Sh. 1, but we did not identify this transition on LR-M-212 Sh. 1 and LR-M-2212. This transition is not at a valve, since the CW header is buried. The statement regarding “including non-safety related portions of the SW return header up to

isolation valves" was intended for above ground piping components where there could be leakage, spray, or flooding effects.

The circ water return header is not in scope due to the large size difference between it and SW return header (96" dia. vs 20" dia., 23 times more flow area) and that there is no credible age related failure of the circ water return header that could affect the SW system.

**2.3.3.7 Heating Steam System RAIs**

**NRC Question RAI 2.3.3.7-1**

As described in the LRA, the Heating Steam system does not perform any safety-related functions. However, certain portions of the Heating Steam system are in-scope for License Renewal in accordance with 10 CFR 54.4(a)(2). Portions of the non-safety-related Heating Steam system in the PAB have the potential to affect the function of safety-related equipment.

License renewal drawing LR-M-214 Sheet 1 depicts heat exchangers HX-97A, HX-97B, HX-86A, HX-86B, HX-35A, HX-35B 1 HX-77A and 1 HX-77B as within the scope of license renewal. However, Table 2.3.3-7 does not indicate that Heating Steam system heat exchangers are components requiring an AMR. If the Heating Steam system heat exchangers are within the scope of license renewal as shown on the license renewal drawings, provide additional information or explain the reason for not including these heat exchangers in Table 2.3.3-7 and/or in Tables 3.3.2-15.

**NMC Response:**

All of these Heating Steam HX's are simple industrial area heaters, which consist of a fan blowing across an open coil. These components are in-scope and subject to aging management, and are represented under the "Heaters/Coolers" component type in Table 2.3.3-7 and Table 3.3.2-15.

**2.3.3.11 Treated Water System RAIs**

**NRC Question RAI 2.3.3.11-1**

The PBNP LRA Section 2.3.3.11 states the shear gate valves in the GO1 and GO2 rooms' oily sumps are within scope. In addition, the PBNP LRA states these are NSR SSC whose failure has an affect on the function of safety-related equipment and are therefore within scope. The PBNP LRA drawing LR-M-223 Sheet 3 at location F-2 indicates STP-15 and 14 are in the GO2 room and are within scope. The shear gate valves for Room GO1 could not be located on the license renewal drawings. Identify and/or provide additional information concerning the location of the shear gate valves associated with Room GO1 that are called out in the PBNP LRA as within scope and subject to AMR in accordance with 10 CFR 54.21 (a)( 1).

**NMC Response:**

There is a plant drawing error on the referenced drawing, where G02 is referenced next to each of these valves. In reality, STP-14 is in the G01 room and STP-15 is in the G02 room. The plant drawing has been updated to correct this error.

**NRC Question RAI 2.3.3.11-2**

The PBNP LRA states all non-safety-related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified within 10 CFR 54.4.(a)(l) (i), (ii), or (iii) shall be considered within scope of the LRA. Inconsistencies within the waste disposal system license renewal drawings were identified as follows: Piping segments identified on PBNP LRA drawing LR-PBM-231, Sheet 2 at locations 8-3, D-4, and B-9; drawing LR-M-223, Sheet 3 at locations E-8 and H-8; and drawing LR-PBM-231 , Sheet 1 at location B-3 are designated to be within scope; however, the basis for these determinations is not explained. If these piping segments can adversely impact the function of safety-related SSCs, identify these safety-related SSCs that could be impacted by these piping segments, and provide additional information and the drawing LR-PBM-231 , Sheet 2, to allow verification that they have been properly identified to be within the scope of license renewal and subject to AMR in accordance with 10 CFR 54.21(a)(l).

**NMC Response:**

PBNP's 10 CFR 54.4(a)(2) effort included doing plant walkdowns to identify non-safety related components that could potentially affect safety related components. This is discussed in LRA Section 2.1.2.1.2. Table 2.1.2.1-1 in the LRA, displays the results of our walkdowns and provides a brief description of the non-safety SSCs that were added to the scope of License Renewal. Although difficult to show on a drawing, the in-scope portions of these non-safety related piping sections were determined during plant walkdowns and transitions are shown at the points where the piping exited the room. Therefore, the scoping boundary may appear in the middle of a piping run and not at an isolation valve.

For LRA Drawing LR-PBM-231 Sh. 2, the three instances identified above are all represented in Table 2.1.2.1-1, on p. 2-28, in the third line item from the bottom. The Safety Related (SR) equipment that was potentially affected includes the Containment Spray pumps, the Spent Fuel Pool pumps, and other SR equipment near pipeways #2 and #3, and near the Charging pump cubicles.

For LRA Drawing LR-M-223 Sh. 3, the two instances identified above are both represented in Table 2.1.2.1-1, on p. 2-27, in the first line item. The SR equipment that was potentially affected includes the Safety Injection pumps and the Component Cooling Water pumps.

For LRA Drawing LR-PBM-231 Sh. 1, the one instance identified above is represented in Table 2.1.2.1-1, on p. 2-27, in the third line item from the top. The SR equipment that was potentially affected includes the Safety Injection pumps, the Containment Spray pumps, the Component Cooling Water pumps, and other SR equipment near the Charging pump cubicles.

**2.3.3.12 Circulating Water System RAIs**

**NRC Question RAI 2.3.3.12-1**

The PBNP LRA Section 2.3.3.12 states that portions of the Circulating Water system are considered to be in-scope per 10 CFR 54.4(a)(2) Criterion 2 due to the potential for flooding or spray to affect the function of the safety related Service Water (SW**)** pumps. The Criterion 2 scoping results for portions of the Circulating Water system that are in-scope for license renewal are identified on drawing LR-PBM-232 at location D5. This drawing indicates that the chlorination piping to the SW pump pits to the suction of Circulating Pumps 2P-30A and 30B are in-scope; however, the same line to Circulating Pumps 1 P-30A and 30B are shown as not in-scope. Provide the basis for not considering chlorination piping between isolation valves CD-46 and 47 to the suction of Circulating Pumps 1 P-30A and 308 in-scope for license renewal.

**NMC Response:**

Based on the physical location of the chlorination system with relation to the circulating water pumps, the Unit 1 chlorination lines do not cross the SR SW pump room, as the Unit 2 chlorination lines do. A failure of the Unit 2 chlorination lines has the potential to affect the SR Service Water pumps via leakage or spray, and therefore these lines are in-scope. Unit 1 chlorination lines do not have the potential to affect any SR equipment, and therefore are not in scope.

**NRC Question RAI 2.3.3.12-2**

The PBNP LRA Section 2.3.3.12 states that portions of the Circulating Water system are considered to be in-scope per 10 CFR 54.4(a)(2) Criterion 2 due to the potential for flooding or spray to affect the function of the safety-related Service Water (SW) pumps. Drawings LR-M-212, Sheet 1 and LR-M-2212 show the portions of the Circulating Water system that are in-scope for license renewal. The scoping review in the LRA state that the pumps, discharge valves, expansion joints and associated piping within the CW pump house structure are in-scope; however, pressure taps (1 PI3503 and 3504, and 1 PI3503 and 3504) on the discharge of circulating water pumps 1-P30A and 30B and 2-P30A and 308 are not included in-scope. Provide additional information and technical justification for omitting the pressure taps (1 PI3503 and 3504, and 1 PI3503 and 3504) on the discharge of circulating water pumps 1-P30A and 30B and 2-P30A and 30B from the scope of license renewal.

**NMC Response:**

The Circulating Water pumps, piping, valves, and expansion joints are in-scope only for a(2) flooding potential due to the very large volume of water that they move/carry, and in the event of a failure of one of these components, that volume would exceed the draining capacity of the structure, which could thereby affect the safety related pumps within the structure. The small bore pressure taps were not included in-scope as a failure of such a tap could not exceed the draining capacity of the structure, and would not affect the safety related SW pumps. Therefore, the pressure taps are not in scope, as they do not meet the scoping criteria for License Renewal.