

December 12, 2011

MEMORANDUM TO: Dennis C. Morey, Chief
Reactor Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

FROM: Greg A. Casto, Chief **/RA/**
Balance of Plant Branch
Division of Safety Systems
Office of Nuclear Reactor Regulation

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR
LIMERICK GENERATING STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION - SCOPING AND
SCREENING (TAC NOS. ME6555 AND ME6556)

Balance of Plant Branch (SBPB) and its contractor, Pacific Northwest National Laboratory, are reviewing the Limerick Generating Station, Units 1 and 2 License Renewal Application (LRA). The review to date has resulted in the attached requests for additional information (RAIs) for Sections 2.2 and 2.3 (Enclosure 1). The additional information is necessary to complete our evaluation of the application. Our efforts on TAC Nos. ME6555 and ME6556 continues. Additional RAIs may be forthcoming. A list of systems reviewed by SBPB that do not require additional information at this time is provided in Enclosure 2.

Docket Nos.: 50-352 and 50-353

Enclosures: As Stated

CONTACTS: Garry L. Armstrong, Jr., NRR/DSS
301-415-4056

Edward T. Smith, NRR/DSS
301-415-1548

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REQUEST FOR ADDITIONAL INFORMATION
LIMERICK GENERATING STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION –
SCOPING AND SCREENING
DOCKET NUMBERS 50-352 AND 50-353
TAC NOS. ME6555 AND ME6556

Plant-Level Scoping Results

RAI 2.2-1

The applicant's scoping criteria is described in Section 2.1 of the Limerick License Renewal Application (LRA). LRA Section 2.2, Table 2.2-1, "Scoping Results," provides the results of applying the license renewal scoping criteria to systems, structures, and components (SSCs). The following systems, as described in the Updated Final Safety Analysis Report (UFSAR), could not be located in LRA Table 2.2-1.

| UFSAR Section | System |
|--|---|
| 1.2.4.3.1.7 Plant Monitoring System (PMS) | Plant Monitoring System |
| 7.1.2.1.12 Area Radiation Monitoring System | Area Radiation Monitoring System |
| 7.1.2.1.13 Process Computer System - Instrumentation | Process Computer System |
| 7.1.2.1.46 Emergency Response Facility Data System | Emergency Response Facility Data System |
| 9.4.3.2.4 Chemistry Laboratory Expansion | Chemistry Laboratory Air Supply and Exhaust Systems |

The staff requests that the applicant justify its exclusion of the above systems from Table 2.2-1.

2.3.3 AUXILIARY SYSTEMS

Auxiliary Systems Generic Requests for Additional Information

RAI 2.3.3-01

For the license renewal boundary drawing locations identified in the table below, the staff could not determine the basis for the change in scoping criteria from 10 CFR 54.4 (a)(1) to 10 CFR 54.4 (a)(2).

| Nonsafety-related/Safety-Related Interface Item | License Renewal Boundary Drawing Number & Location | Explanation of Issue |
|---|---|---|
| 2.3.3.17 Process Radiation Monitoring System | | |
| a | LRM-26 Sheet 4, location H-6 | 1/2" SST line connected to "Sample B" line. |
| 2.3.3.4 Containment Enclosure Ventilation System | | |
| a | LR-M-78 Sheet 1, locations D-5 thru D-7 and F-5 thru F-7 | At valves 0001A, 0002A, 0003A, 0005A and 0001B, 0002B, 0003B, 0005B. |
| b | LR-M-90 Sheet 1, locations D-2, D-4, D-7, E3, G-4, | Several 3/4" lines to vent and 1" drain lines. |
| c | LR-M-90 Sheet 2, Multiple locations | All capped 3/4" vent and drain lines. |
| 2.3.3.8 Emergency Diesel Generator System | | |
| a | LR-M-20 Sheets 7 and 13, locations C-3, E-3, E-5, D-5 and E-8 | At valves 1430A, 1406A, 1415A, 1437A, 1413A 1154A, 2430A, 2406A, 2415A, 2437A, 2413A and 2154A. |
| b | LR-M-20 Sheets 4 and 10, locations C-3 and C-4 | At valves 1511A, 1510A 1509A, 2511A, 2510A and 2509A. |
| c | LR-M-20 Sheets 5 and 11, locations F-3 and E-5 | At valves 1608A, 1604A, 2608A, and 2604A. |
| 2.3.3.19 Radwaste System | | |
| a | LR-M-61 Sheet 1, locations G-5 and C-5 | At valves 1081 and 1082. |
| b | LR-M-61 Sheet 4, locations G-5 and C-5 | At valves 2081 and 2082. |
| 2.3.3.21 Reactor Water Cleanup System | | |
| a | LR-M-44 Sheet 1, Multiple locations | Several (12 locations) 1" capped lines. |
| 2.3.3.22 Safety Related Service Water System | | |
| a | LR-M-51 Sheet 8, location D-5 | At valve 214B. |
| b | LR-M-51 Sheet 4, locations D-4 & D-5 | At valve 1141B and 3/4" GBB-123 line at valve HV-C 1F103B. |
| c | LR-M-13 Sheet 2, location G-5 | At valve 2066A. |
| d | LR-M-12 Sheet 1, Multiple | Multiple 1" flush, drain and |

| | | |
|--|--|---|
| | locations (35 locations) | capped lines. |
| e | LR-M-11 Sheet 2, Multiple locations (16 locations) | Multiple ¾" flush, drain and capped lines. |
| f | LR-M-11 Sheet 3, Multiple locations (17 locations) | Multiple ¾" flush, drain and capped lines. |
| g | LR-M-11 Sheet 4, Multiple locations (32 locations) | Multiple ¾" and 1" flush, drain and capped lines. |
| h | LR-M-11 Sheet 5, Multiple locations (34 locations) | Multiple ¾" and 1" flush, drain and capped lines. |
| 2.3.3.26 Water Treatment and Distribution(WTD) System | | |
| a | LR-M-78 Sheet 1, Locations D-5 thru D-7 and F-5 thru F-7 | At valves 0001A, 0002A, 0003A, 0005A and 0001B, 0002B, 0003B, 0005B without classification break at SR-NSR interface. |
| b | LR-M-90 Sheet 1, Locations D-2, D-4, D-7, E3, F-4, G-4 | Several ¾" lines to vent and 1" lines to Drain without classification break at the valves where there is a SR-NSR interface. |
| c | LR-M-90 Sheet 2, Several locations | All capped ¾" lines to vent and 1" lines to Drain without classification break at the valves where there is a SR-NSR interface. |

The staff requests the applicant to clarify the scoping classification of the 10 CFR 54.4(a)(2) pipe lines identified in the above table.

RAI 2.3.3-02

In LRA Section 2.1.5.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor past the safety/nonsafety interface.

On the following license renewal boundary drawings, the staff could not locate seismic anchors on the 10 CFR 54.4(a)(2) nonsafety-related lines that are connected to safety-related lines:

| Location Item | License Renewal Boundary Drawing Number & Location | 10 CFR 54.4(a)(2) Pipe Line(s) or Identifier |
|---------------------------------------|---|---|
| 2.3.3.1 Auxiliary Steam System | | |
| a | LR-M-50 Sheet 1 and Sheet 2, location E-2 | 3" GBD-137 and 3" GBD-237 connected to 3" EBB-109 and 3" EBB-209, respectively. |
| b | LR-M-55 Sheet 1 and Sheet 2, location C-2 | 4" GBD-136 and 4" GBD-236 connected to 4" EBB-108 and 4" |

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| | | EBB-208, respectively. |
| 2.3.3.2 Closed Cooling Water System | | |
| a | LR-M-13 Sheet 1, locations F-5 & G-7 | At valves HV108 & HV111, respectively. |
| b | LR-M-13 Sheet 2, locations F-5 & G-7 | At valves HV208 & HV211, respectively. |
| 2.3.3.4 Control Enclosure Ventilation System – Chilled Water Portion Only | | |
| a | LR-M-78 Sheet 1, location F-1 | 1" JCD-112 line from Demineralized Water |
| b | LR-M-78 Sheet 2, location F-5 | Downstream of valve 0003 from Demineralized Water |
| c | LR-M-90 Sheet 1, location E-8 | 2"-JCD-112 line from Demineralized Water |
| d | LR-M-90 Sheet 1, locations B-5 and B-8 | Downstream of valves PSV051A, PSV051B, PSV050A and PSV050B, PSV049A and PSV049B, PSV048A and PSV048B |
| e | LR-M-90 Sheet 1, locations A-4 and A-6 | Downstream of valves 0038A and 0038B |
| 2.3.3.8 Emergency Diesel Generator System | | |
| a | LR-M-20 Sheets 3 and 9, location D-2 | Downstream of valves 1041 and 2041, respectively |
| b | LR-M-20 Sheets 3 and 9, locations D-2, D-3 and D-4 | Four 4" HBD-365 (a)(2) lines connected to (a)(1) diesel oil storage tanks. |
| c | LR-M-20 Sheets 3 and 9, location F-6 and D-6 | 2" HBD-365 and 2" HBD-465 connected to the diesel engines and diesel-generator day tanks. |
| d | LR-M-20 Sheets 3 and 9, location D-4 and B-6 | 2" HBD-365 and 2" HBD-465 connected to the Diesel Oil Storage Tanks. |
| e | LR-M-20 Sheets 3 and 9, location D-4 | 4" HBD-365 connected to the Diesel Oil Storage Tanks 1AT527 and 2AT527. |
| f | LR-M-20 Sheets 3 and 9, locations D-2/3 | 4" HBD-365 connected to the Diesel Oil Storage Tanks 1CT527, 1BT527, 1DT527, 2CT527, 2BT527 and 2DT527. |
| g | LR-M-20 Sheets 3 and 9, location C-6 | 2" HBD-365 connected to the diesel engines and diesel-generator day tanks. |
| 2.3.3.11 Fuel Pool Cooling and Cleanup System | | |
| a | LR-M-47 Sheet 1, location E-7 | 2" HBC-133 (a)(2) line connected to 2" EBB-142 (a)(1) line. |
| b | LR-M-47 Sheet 2, location E-7 | 2" HBC-233 (a)(2) line connected to 2" EBB-242 (a)(1) line. |

| | | |
|---|--|---|
| c | LR-M-53 Sheet 2, locations H-6 and H-5 | 2" JCD-101 connected to Skimmer Surge Tank 1AT208 and 1BT208. |
| d | LR-M-53 Sheet 4, locations H-6 and H-5 | 2" JCD-201 connected to Skimmer Surge Tank 2AT208 and 2BT208. |
| 2.3.3.16 Primary Containment Ventilation System – Chilled Water Portion Only | | |
| a | LR-M-87 Sheet 4, locations A-4 through C-4 | At motor operated control valves HV120A, HV120B, HV121A, HV121B and also at HV124A, HV124B, HV125A, HV125B. |
| b | LR-M-87 Sheet 9, locations A-4 through C-4 | At motor operated control valves HV220A, HV220B, HV221A, HV221B and also at HV224A, HV224B, HV225A, HV225B. |
| 2.3.3.19 Radwaste System | | |
| a | LR-M-61 Sheet 1, locations B-4 and F-4 | Downstream of valves HV131 and HV111. |
| b | LR-M-51 Sheets 2 and 6, location G-3 | Downstream of valves HV 1F040 and HV 2F040, respectively. |
| c | LR-M-90 Sheet 1, locations A-4 and A-6 | Downstream of valves 0038B and 0038A, respectively. |
| 2.3.3.22 Safety Related Service Water System | | |
| a | LR-M-11 Sheet 1, location G-1 | 4" JBD-279 line connected to the 10 CFR 54.4(a)(1) line from emergency service water pumps. |
| b | LR-M-11 Sheet 1, location G-8 | 4" JBD-179 line connected to the 10 CFR 54.4(a)(1) line from emergency service water pumps. |
| c | LR-M-11 Sheet 2, location A-8 | 8" JBD-116 10 CFR 54.4(a)(2) line connected to 8" HBC-158 10 CFR 54.4(a)(1) line. |
| d | LR-M-11 Sheet 2, location C-7 | 8" JBD-113 10 CFR 54.4(a)(2) line connected to 8" HBC-138 10 CFR 54.4(a)(1) line. |
| e | LR-M-11 Sheet 2, location D-2 | 6" JBD-50 line from control room chiller. |
| f | LR-M-11 Sheet 2, location E-2 | 6" JBD-51 line from control room chiller. |
| g | LR-M-11 Sheet 2, location F-2 | 6" JBD-50 line from control room chiller. |
| h | LR-M-11 Sheet 2, location G-2 | 6" JBD-51 line from control room chiller. |
| i | LR-M-11 Sheet 3, location B-2 | 10" JBD-139 10 CFR 54.4(a)(2) line connected to 10" HBC-152 |

| | | |
|-----------|-------------------------------|---|
| | | 10 CFR 54.4(a)(1) line. |
| j | LR-M-11 Sheet 3, location C-2 | 8" JBD-116 10 CFR 54.4(a)(2) line connected to 8" HBC-159 10 CFR 54.4(a)(1) line. |
| k | LR-M-11 Sheet 3, location D-2 | 10" JBD-113 10 CFR 54.4(a)(2) line connected to 10" HBC-166 10 CFR 54.4(a)(1) line. |
| l | LR-M-11 Sheet 3, location E-2 | 8" JBD-113 10 CFR 54.4(a)(2) line connected to 8" HBC-168 10 CFR 54.4(a)(1) line. |
| m | LR-M-11 Sheet 4, location A-5 | 10" JBD-213 10 CFR 54.4(a)(2) line connected to 10" HBC-266 10 CFR 54.4(a)(1) line. |
| n | LR-M-11 Sheet 4, location A-6 | 10" JBD-239 10 CFR 54.4(a)(2) line connected to 10" HBC-270 10 CFR 54.4(a)(1) line. |
| o | LR-M-11 Sheet 4, location C-7 | 8" JBD-216 10 CFR 54.4(a)(2) line connected to 8" HBC-258 10 CFR 54.4(a)(1) line. |
| p | LR-M-11 Sheet 4, location E-7 | 8" JBD-213 10 CFR 54.4(a)(2) line connected to 8" HBC-238 10 CFR 54.4(a)(1) line. |
| q | LR-M-11 Sheet 5, location C-2 | 8" JBD-216 10 CFR 54.4(a)(2) line connected to 8" HBC-259 10 CFR 54.4(a)(1) line. |
| r | LR-M-11 Sheet 5, location D-2 | 8" JBD-213 10 CFR 54.4(a)(2) line connected to 8" HBC-268 10 CFR 54.4(a)(1) line. |
| s | LR-M-12 Sheet 1, location B-3 | 3" HBD-82 83 line connected to drain sump. |
| t | LR-M-12 Sheet 1, location B-6 | 3" HBD-83 82 line connected to drain sump. |
| u | LR-M-13 Sheet 1, location F-5 | 3" JBD-148 10 CFR 54.4(a)(2) line connected to 3" HBB-135 10 CFR 54.4(a)(1) line. |
| v | LR-M-13 Sheet 1, location G-7 | 3" JBD-150 10 CFR 54.4(a)(2) line connected to 3" HBB-138 10 CFR 54.4(a)(1) line. |
| w | LR-M-13 Sheet 2, location F-5 | 3" JBD-248 10 CFR 54.4(a)(2) line connected to 3" HBB-235 10 CFR 54.4(a)(1) line. |
| x | LR-M-13 Sheet 2, location G-7 | 3" JBD-250 10 CFR 54.4(a)(2) line connected to 3" HBB-238 10 CFR 54.4(a)(1) line. |
| y | LR-M-51 Sheet 8, location E-3 | ¾" GBD-275 line downstream of valve HV 2F080B. |
| z | LR-M-51 Sheet 2, location E-8 | 3/8" and ½" SS lines downstream of valve HV 1F080A. |
| aa | LR-M-51 Sheet 4, location A-5 | 2" JCD-113 line to RHR heat exchanger 1BE205 from M-18. |
| bb | LR-M-51 Sheet 4, location F-3 | 3/8" and ½" SS lines downstream of valve HV 1F080B. |

| | | |
|---|---|---|
| cc | LR-M-51 Sheet 6, location G-2 | 4" GBC-217 line downstream of valve HV 2F040. |
| 2.3.3.26 Water Treatment and Distribution System | | |
| a | LR-M-20 Sheet 4, location H-5 LR-M-20 Sheet 10, location H-5 | At valves 1132A and 2132A, respectively. |
| b | LR-M-51 Sheet 2, location B-6 LR-M-51 Sheet 6, location B-6 | At valves HV156A and HV256A, respectively. |

The staff requests the applicant to clarify the locations of the seismic anchors on the attached nonsafety-related piping for all of the systems in the above table. The staff also requests the applicant to identify seismic anchors on attached nonsafety-related lines for all other systems not captured in the above table.

2.3.3.8 Emergency Diesel Generator System

RAI 2.3.3.8-01

License renewal boundary drawings LR-M-20 Sheets 8 and 14, location F-5, depict ejector casings that are within the scope of license renewal for 10 CFR 54.4(a)(1). However, the ejector casing is not listed in Table 2.3.3-8 as a component type subject to an Aging management review (AMR).

The staff requests the applicant to justify the exclusion of the ejector casing component type from LRA Table 2.3.3-8.

RAI 2.3.3.8-02

License renewal boundary drawings LR-M-20 Sheets 8 and 14, locations B-4 and D-4, depict turbo charger casings that are within the scope of license renewal for 10 CFR 54.4(a)(1). However, the turbo charger casing is not listed in Table 2.3.3-8 as a component type subject to an AMR.

The staff requests the applicant to justify the exclusion of the turbo charger casing as component types from LRA Table 2.3.3-8.

RAI 2.3.3.8-03

License renewal boundary drawings LR-M-20 Sheets 8 and 14, location F-3, depict exhaust silencer housings that are within the scope of license renewal for 10 CFR 54.4(a)(1). However, the exhaust silencer housing is not listed in Table 2.3.3-8 as a component type subject to an AMR.

The staff requests the applicant to justify the exclusion of the exhaust silencer component type from LRA Table 2.3.3-8.

RAI 2.3.3.8-04

License renewal boundary drawings LR-M-20 Sheets 3 and 9, locations D-3 and D-7, depict flame arrestor housings that are within the scope of license renewal for 10 CFR 54.4(a)(1). However, the flame arrestor housing that is not listed in Table 2.3.3-8 as a component type subject to an AMR.

The staff requests the applicant to justify the exclusion of the flame arrestor housing component type from LRA Table 2.3.3-8.

RAI 2.3.3.8-05

License renewal boundary drawings LR-M-20 Sheets 3 and 9, location F-5, depict diesel generators 1AG501 and 2AG501 as not being within the scope of license renewal. The continuation lines to diesel generators, at locations B-5 and B-6 on both sheets, also depict the three other diesel generators at each plant (Unit 1 1BG501, 1CG501, 1DG501, and Unit 2 2BG501, 2CG501, and 2DG501) as not being within the scope of license renewal.

The staff requests the applicant to justify why all the emergency diesel generators indicated on license renewal boundary drawings LR-M-20 Sheets 3 and 9 are indicated as not being within the scope of license renewal.

2.3.3.12 Nonsafety-Related Service Water System

RAI 2.3.3.12-01

License renewal boundary drawings LR-M-10 Sheets 5 and 10, locations H-2 and H-4, depict the 6" JBD-107/207 and 6" JBD-132/232 lines to be within the scope of license renewal for 10 CFR 54.4(a)(2) with continuations to and from license renewal boundary drawings LR-M-10 Sheets 3 and 8. However, the continuations of these lines on license renewal boundary drawings, LR-M-10 Sheets 3 and 8, are depicted as not being within the scope of license renewal.

The staff requests the applicant to clarify the correct scoping classification of these pipe lines.

2.3.3.13 Plant Drainage System

RAI 2.3.3.13-01

On license renewal boundary drawing, LR-M-64 Sheet 1, location G-8, the continuation of the pipe line depicted within the scope of license renewal could not be found in any other license renewal boundary drawings.

The staff requests the applicant to locate the continuation line for the above location. If the continuation line cannot be shown on license renewal boundary drawings, then provide additional information describing the extent of the scoping boundary and verify whether or not there are additional AMR component types between the continuation and the termination of the scoping boundary. If the scoping classification of a section of the piping changes over the continuation, provide additional information to clarify the change in scoping classification.

2.3.3.14 Primary Containment Instrument Gas System

RAI 2.3.3.14-01

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to AMR by reviewing the results of the screening of components within the license renewal boundary.

On license renewal boundary drawing LR-M-59 Sheet 1, location C-6, the applicant depicts Note 5, which states "This piping is included in scope out to the seismic anchor credited for

structural support of the safety-related piping located as shown. The non-safety-related piping beyond this anchor location is not in scope.” However, the 1” JCD-109 pipe continues in red, designating the piping as being within the scope of license renewal for 10 CFR 54.4(a)(2), from Note 5 to the end of the pipe and including the drawing continuation marker to drawing LR-M-59 Sheet 2, at location F-1. The continuation marker on Sheet 2 also shows the pipe still in scope for 10 CFR 54.4(a)(2) and has another Note 5, the same as Sheet 1, where the transition is actually made from red to black to indicate the 1” JCD-109 pipe continuation changed to not being in scope for license renewal. For Unit 2, LRA drawing LR-M-59 Sheet 3, location C-6, the 1” JCD-209 pipe has the same Note 5 and there is an immediate transition from red to black, so the remainder of the pipe up to and including the continuation marker is no longer in scope as the Note 5 indicates. There also is no duplicate Note 5 on Sheet 4.

The staff requests the applicant to clarify why the 1” JCD-109 pipe scope does not agree with Note 5 on LRA drawing LR-M-59 Sheet 1. Also clarify why there are differences in scoping between the 1” JCD-109 pipeline on Sheets 1 and 2 and the 1” JCD-209 pipeline on Sheets 3 and 4.

RAI 2.3.3.14-02

License renewal boundary drawing LR-M-59 Sheet 3, location H-6, depicts a line not highlighted within the scope of license renewal. However, the line is connected to a continuation marker from drawing LR-M-42 Sheet 3, location A-3, which depicts the continuation marker to be highlighted green and in scope for 10 CFR 54.4(a)(1).

The staff requests the applicant to clarify the scoping classification of the pipe line.

2.3.3.17 Process Radiation Monitoring System

RAI 2.3.3.17-01

License renewal boundary drawings LR-M-26 Sheets 1 and 7, location C-2, and LR-M-26 Sheet 4, location B-7, depict sample chambers in Detail K that are within the scope of license renewal for 10 CFR 54.4(a)(2), but are not listed in Table 2.3.3-17 as a component type subject to an AMR.

The staff requests the applicant to justify the exclusion of the sample chamber component type from LRA Table 2.3.3-17.

RAI 2.3.3.17-02

License renewal boundary drawing LR-M-26 Sheet 5, location E-3, depicts filter and detector housings in Detail G that are within the scope of license renewal for 10 CFR 54.4(a)(1), but are not listed in Table 2.3.3-17 as a component type subject to an AMR.

The staff requests the applicant to justify the exclusion of the filter and detector housing component types from LRA Table 2.3.3-17.

2.3.3.18 Process and Post-Accident Sampling System

RAI 2.3.3.18-01

License renewal boundary drawings LR-M-23 Sheets 4 and 7, location H-4, depict a continuation line from the feedwater to reactor 10 CFR 54.4(a)(2) pipelines respectively to license renewal boundary drawings LR-M-06 Sheets 3 and 6, location G-8, where the pipeline continuations are shown excluded from scope of license renewal.

The staff requests the applicant to clarify the scoping classification of these pipe lines.

2.3.3.22 Safety Related Service Water System

RAI 2.3.3.22-01

License renewal boundary drawing LR-M-13 Sheet 2, locations D-2 and E-7, depicts 1½" JBD-419 lines to be within the scope of license renewal for 10 CFR 54.4(a)(2), with continuations to license renewal boundary drawing LR-M-23, Sheet 7. However, the continuations of these lines on license renewal boundary drawing LR-M-23, Sheet 7 are shown as not within the scope of license renewal.

The staff requests the applicant to clarify the scoping classification of these pipe lines.

RAI 2.3.3.22-02

License renewal boundary drawing LR-M-13, Sheet 1, locations D-2 and D-4, shows the 1½" JBD-319 lines to be within the scope of license renewal for 10 CFR 54.4(a)(2), with continuations to and from the license renewal boundary drawing LR-M-23, Sheet 4. However the continuations of these lines on drawing LR-M-23, Sheet 4 are shown as not within the scope of license renewal.

The staff requests the applicant to clarify the scoping classification of these pipe lines.

2.3.4 STEAM AND POWER CONVERSION SYSTEMS

Steam and Power Conversion System Generic Requests for Additional Information

RAI 2.3.4-01

For the license renewal boundary drawing locations identified in the table below, the staff could not determine the basis for the change in scoping criteria from 10 CFR 54.4 (a)(1) to 10 CFR 54.4 (a)(2).

| Nonsafety-related/Safety-Related Interface Item | License Renewal Boundary Drawing Number & Location | Explanation of Issue |
|--|---|--|
| 2.3.4.2 Condensate System | | |
| a | LR-M-51 Sheet 1, Multiple locations | At all test connections. |
| b | LR-M-52 Sheet 1, Multiple locations | At valves 1F041A, 1F041B, 1021B, 1075A, 1075B, 1076A and 1076B. |
| c | LR-M-52 Sheet 2, locations F-3 and G-3 | ¾" SBD-152 drain out of pumps 1AP256 and 1BP256. |
| d | LR-M-52 Sheet 3, locations E-7 and F-7 | At valves 2F041A and 2F041B. |
| e | LR-M-52 Sheet 4, Multiple locations | At valves 2004, 2023A, 2023B, 2027B, 2027C, 2027D, 2032D, 2066, 2069, 2075A, 2075B, 2076, 2082, 2083, 2084, 2085, 2086, 2087 and 2088. |

| 2.3.4.6 Main Steam System | | |
|----------------------------------|--|---|
| a | LR-M-01 Sheet 1, location C-6 | At valve 1030. |
| b | LR-M-01 Sheet 3, location A-6 | At valve 2030. |
| c | LR-M-41 Sheet 1, location A-6 | At valves 1038 and 1051. |
| d | LR-M-41 Sheet 2, locations E-4, D-3, D-1 and G-8 | At valves 1066A, 1067A, 1068A, 1069A, 1070A, 1071A, 1072A, 1073A, 1037, 1040, and 1034E. |
| e | LR-M-41 Sheet 4, locations A-6 & B-5 thru D-5 | At valves 2038, 2F082B, 2063 and 2F083A. |
| f | LR-M-41 Sheet 5, locations E-4, D-3, D-1 and G-8 | At valves, 2037, 2070, 2034E. |
| g | LR-M-49 Sheet 1, Multiple locations | At valves 1F053, 1F082, 1F083, 1F085, 1004, 1005, 1020, 1026, 1042, 1043, 1048A, 1048B, 1048B, 1048D, 1049B, 1049B, 1049B, 1049D, and 1055. |
| h | LR-M-50 Sheet 1, location G-6 | At valve 1043. |
| i | LR-M-50 Sheet 2, location H-6 | At valve 2043. |
| j | LR-M-55 Sheet 1, Multiple locations | At valves 1F013, 1F015, 1F044, 1F056, 1F065, 1F090, 1F091, 1F092, 1030, 1034, 1036, 1037, 1040, 1041, 1050, 1053, 1054, 1056, 1057, 1066, 1067, 1070A, 1070B, 1070C, 1070D, 1071A, 1071B, 1071C, and 1071D, 1045. |

The staff requests the applicant to clarify the scoping classification of the 10 CFR 54.4(a)(2) pipe lines identified in the above table.

RAI 2.3.4-02

In LRA Section 2.1.5.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor past the safety/nonsafety interface.

On the following license renewal boundary drawings, the staff could not locate seismic anchors on the 10 CFR 54.4(a)(2) nonsafety-related lines that are connected to safety-related lines:

| Location Item | License Renewal Boundary Drawing Number & Location | 10 CFR 54.4(a)(2) Pipe Line(s) or Identifier |
|----------------------------------|---|---|
| 2.3.4.2 Condensate System | | |
| a | LR-M-49 Sheet 1 and Sheet 2, location B-4 | 2" HBD 339 and 2" HBD 439 downstream of valves 1F064 and 2F064. |
| b | LR-M-51 Sheet 1 and Sheet 5, location H-6 | 4" HCD 108 and 4" HCD 208 downstream of valves 1F098 and 2F098. |
| c | LR-M-52 Sheet 1 and Sheet 3, location H-3 | 2" HBD 394, downstream of valve 1F029B and 2" HBD 494, downstream of valve 2F029B |
| d | LR-M-52 Sheet 1 and Sheet 3, | 2" HBD 394, downstream of |

| | | |
|----------------------------------|--|---|
| | location G-4 | valve 1F029A and 2" HBD 494, downstream of valve 2F029A |
| e | LR-M-52 Sheet 2 and Sheet 4, location E-7 | 6" HBD 395 and 6" HBD 495 upstream of valves 1034 and 2034. |
| f | LR-M-55 Sheet 2, location G-4 | 10"HCB-208 downstream of valve HV 2F0111. |
| g | LR-M-55 Sheet 1 and Sheet 2, location B-5 | 2" HBD 338 and 2" HBD 438 upstream of valves 1F077 and 2F077. |
| 2.3.4.6 Main Steam System | | |
| a | LR-M-01 Sheet 1, locations C-8, G-8 and H-8 | Downstream of valves HV108, HV109, HV150, and HV111. |
| b | LR-M-01 Sheet 1, locations C-8, D-8, D-6 and H-7 | Downstream of valves HV208, HV209, HV250, and HV211. |
| c | LR-M-41 Sheets 2 and 4, location B-4 | Downstream of valves 1F085 and 2F085. |

The staff requests the applicant to clarify the locations of the seismic anchors on the attached nonsafety-related piping for all of the systems in the above table. The staff also requests the applicant to identify seismic anchors on attached nonsafety-related lines for all other systems not captured in the above table.

2.3.4.3 Condenser and Air Removal System

RAI 2.3.4.3-01

License renewal boundary drawings LR-M-07 Sheets 1 and 3, location H-2, depict air inlets with screens that are within the scope of license renewal for 10 CFR 54.4(a)(2), but are not listed in Table 2.3.4-3 as a component type subject to an AMR.

The staff requests the applicant to justify the exclusion of the air inlet with screen component type from LRA Table 2.3.4-3.

2.3.4.6 Main Steam System

RAI 2.3.4.6-01

On license renewal boundary drawing, LR-M-05 Sheet 1, locations G-3, G-4 and G-6, the continuation of the 1 ½" "Bearing Drain to Oily Waste" pipe from the condenser could not be found on the following license renewal boundary drawings because the drawings were not included in the license renewal boundary drawings package:

- M-19 Sheet 3
- M-19 Sheet 6

The staff requests the applicant to provide the license renewal boundary for the 1 ½" "Bearing Drain to Oily Waste" pipe for the license renewal boundary drawings described above. If the continuation line cannot be shown on these license renewal boundary drawings, then provide additional information describing the extent of the scoping boundary and verify whether or not there are additional AMR component types between the continuation and the termination of the scoping boundary. If the scoping classification of a section of the piping changes over the continuation, provide additional information to clarify the change in scoping classification.

2.3.4.7 Main Turbine

RAI 2.3.4.7-01

Drawing LR-M-07 Sheet 2, location F-6, shows in scope pipeline 1" HBD-359, however the continuation on this same drawing at location B-4 shows this pipeline as not in scope.

The staff requests the applicant to provide additional information to clarify the scoping boundary of this pipe section.

RAI 2.3.4.7-02

License renewal boundary drawings LR-M-07 Sheets 2 and 4, location E-7, depict drain pipelines 1" HBD-359, and 1" HBD-459 within the scope of license renewal for 10 CFR 54.4(a)(2). However, license renewal boundary drawings LR-M-06 sheets 2 and 5, location D-8, depict the continuation lines as not being within the scope of license renewal.

The staff requests the applicant to clarify the scoping boundaries for the pipe lines.

SYSTEMS REVIEWED BY SBPB THAT DID NOT REQUIRE ADDITIONAL INFORMATION

- **2.3.3.3 - Compressed Air System**
- **2.3.3.6 - Cranes and Hoists**
- **2.3.3.10 - Fuel Handling and Storage**
- **2.3.3.21 - Reactor Water Cleanup System**
- **2.3.4.1 - Circulating Water System**
- **2.3.4.4 - Extraction Steam System**
- **2.3.4.5 - Feedwater System**