

March 23, 2004

LICENSEE: Southern Nuclear Operating Company
FACILITY: Joseph M. Farley Nuclear Plant, Units 1 and 2
SUBJECT: SUMMARY OF TELEPHONE CONFERENCE ON FEBRUARY 18, 2004,
BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND THE
SOUTHERN NUCLEAR OPERATING COMPANY CONCERNING DRAFT
REQUESTS FOR ADDITIONAL INFORMATION ON JOSEPH M. FARLEY
NUCLEAR PLANT, UNITS 1 AND 2, LICENSE RENEWAL APPLICATION
(TAC NOS. MC0774 AND MC0775)

The U.S. Nuclear Regulatory Commission staff and representatives of Southern Nuclear Operating Company (SNC or the applicant) held a telephone conference on February 18, 2004, to discuss the applicant's draft responses to the staff's draft requests for additional information (D-RAIs) concerning the Joseph M. Farley Nuclear Plant (FNP) license renewal application.

The conference call was useful in clarifying the intent of the staff's questions. On the basis of the discussion, the applicant was able to better understand the staff's questions. No staff decisions were made during the telephone conference. In some cases, the applicant agreed to provide information for clarification.

Enclosure 1 provides a list of the telephone conference participants. Enclosure 2 contains a listing of the D-RAIs discussed with the applicant, including a brief description on the status of the items. Enclosure 3 is the applicant's draft responses to the staff's D-RAIs. The applicant has had an opportunity to review and comment on this summary.

/RA/

Tilda Y. Liu, Project Manager
License Renewal Section A
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket Nos.: 50-348 and 50-364

Enclosures: As stated

cc w/enclosures: See next page

March 23, 2004

LICENSEE: Southern Nuclear Operating Company

FACILITY: Joseph M. Farley Nuclear Plant, Units 1 and 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE ON FEBRUARY 18, 2004, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND THE SOUTHERN NUCLEAR OPERATING COMPANY CONCERNING DRAFT REQUESTS FOR ADDITIONAL INFORMATION ON JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2, LICENSE RENEWAL APPLICATION (TAC NOS. MC0774 AND MC0775)

The U.S. Nuclear Regulatory Commission staff and representatives of Southern Nuclear Operating Company (SNC or the applicant) held a telephone conference on February 18, 2004, to discuss the applicant's draft responses to the staff's draft requests for additional information (D-RAIs) concerning the Joseph M. Farley Nuclear Plant (FNP) license renewal application.

The conference call was useful in clarifying the intent of the staff's questions. On the basis of the discussion, the applicant was able to better understand the staff's questions. No staff decisions were made during the telephone conference. In some cases, the applicant agreed to provide information for clarification.

Enclosure 1 provides a list of the telephone conference participants. Enclosure 2 contains a listing of the D-RAIs discussed with the applicant, including a brief description on the status of the items. Enclosure 3 is the applicant's draft responses to the staff's D-RAIs. The applicant has had an opportunity to review and comment on this summary.

/RA/

Tilda Y. Liu, Project Manager
License Renewal Section A
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket Nos: 50-348 and 50-364

Enclosures: As stated

cc w/enclosures: See next page

DISTRIBUTION:

See next page

Document Name: C:\ORPCheckout\FileNET\ML040830748.wpd

Accession No: ML040830748

OFFICE:	LA:RLEP	TECH SUPPORT	PM:RLEP	SC:RLEP
NAME:	YEdmonds	D. Chen	T. Liu	S. Lee
DATE:	3/23/04	3/23/04	3/23/04	3/23/04

OFFICIAL RECORD COPY

**LIST OF PARTICIPANTS FOR TELEPHONE CONFERENCES ON
DRAFT REQUESTS FOR ADDITIONAL INFORMATION**

February 18, 2004

<u>Participants</u>	<u>Affiliation</u>
Tilda Liu	NRC
Kamishan Martin	NRC
Ron Young	NRC
Chang Li	NRC
Steve Jones	NRC
Rick Dipert	NRC
Farideh Saba	ISL
Harvey Abelson	ISL
Ken Dungen	ISL
Jan E. Fridrichsen	SNC
Mike Macfarlane	SNC
Lou Bohn	SNC
Bill Evans	SNC
Leanne Walker	SNC
Partha Ghosal	SNC
Willie Jennings	SNC
Ed Davidson	SNC
Chuck Pierce	SNC

REVIEW OF LICENSE RENEWAL APPLICATION (LRA) FOR FARLEY UNITS 1 AND 2 DRAFT REQUESTS FOR ADDITIONAL INFORMATION (D-RAIs)

February 18, 2004

Section 2.3.3: Auxiliary Systems

2.3.3.3 Spent Fuel Pool Cooling and Cleanup System

D-RAI 2.3.3.3-1

License renewal boundary drawings D-175043L (Unit 1) and D-205043L (Unit 2) do not appear to show any source of makeup water to the spent fuel pit (spent fuel pool) as being within the scope of license renewal. Section 9.1.3.3.2 of the FNP UFSAR states that the FNP spent fuel pool was designed in accordance with Regulatory Guide 1.13, which requires a diversity of makeup water sources to the spent fuel pool. Section 9.1.3.3.2 of the FNP UFSAR also credits the demineralized water system and the reactor makeup water system as being available to supply makeup water to the spent fuel pool, and Section 2.3.3.23 of the LRA states, "The license renewal intended function of the Reactor Makeup Water Storage System is to provide an assured seismic category I make-up source to ... the spent fuel pool."

Justify the exclusion of the piping and components connecting the demineralized water system and the reactor makeup water system to the spent fuel pool from the scope of license renewal and being subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1), respectively.

Discussion: The staff and the applicant agreed that the D-RAI and associated draft response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

2.3.3.4 Overhead Heavy and Refueling Load Handling System

D-RAI 2.3.3.4-1

In Section 2.3.3.4, the applicant provides a brief description of the overhead heavy and refueling load handling system. This section of the LRA identifies the containment polar crane, the reactor cavity manipulator crane, the spent fuel pool bridge crane, the spent fuel cask crane, and the special tools and adapters used for lifting and handling refueling loads as being part of the overhead heavy and refueling load handling system. However, the LRA does not identify which of these cranes have components subject to an AMR, nor does LRA Table 2.3.3.4 identify any of the special tools and adapters used for lifting and handling of refueling loads as being subject to an AMR. Identify the specific cranes that contain components subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1), and justify the exclusion of the special tools and adapters used for lifting and handling refueling loads from an AMR.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

D-RAI 2.3.3.4-2

Several structures typically contain cranes or hoists located above or near safety related equipment (for example, the intake structure and the diesel generator building). Describe how areas containing cranes or hoists near safety-related equipment were evaluated to identify cranes or hoists subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1), and identify where those components are identified in the LRA.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

2.3.3.13 Fire Protection

D-RAI 2.3.3.13-1

The license renewal boundary drawings in LRA Section 2.3.3.13 identify those portions of fire protection systems within the scope of license renewal in accordance with the requirements of 10 CFR 54.4(a). The following questions relate to these drawings:

- a. License renewal boundary drawing D-170384L, sheet 2, identifies low pressure carbon dioxide systems on the 155'0" level of the Unit 1 turbine building as not being within the scope of license renewal. The system located between E-9 and G-9 on the drawing is not identified. License renewal boundary drawing D-200152L, sheet 1, identifies low pressure carbon dioxide systems in the Unit 2 turbine building and excluded the load centers and 4160 V switchgear from scope. Identify the unlabeled system in Unit 1 and justify the exclusion of these systems in Unit 1 and 2 from the scope of license renewal.
- b. License renewal boundary drawing D-170385L, sheet 1, identifies Unit 1 high pressure carbon dioxide systems in the river water switchgear as not within the scope of license renewal. Justify the exclusion of these systems from the scope of license renewal.
- c. License renewal boundary drawing D-170386L, sheet 1, identifies the Unit 1 halon fire protection systems, and D-205021L, sheet 1, identifies the Unit 2 halon fire protection systems. Both drawings include the fire protection system in the communications room and excluded the systems in the computer room and control system cabinet room. Justify the exclusion of the fire protection systems in the computer room and control system cabinet room from the scope of license renewal.
- d. License renewal boundary drawing D-508526L, sheet 1, identifies the fuel oil systems for the diesel engine fire pumps. The drawing shows the license renewal boundary at the flexible supply and return line connection. Excluded from scope are the flexible fuel lines, housings for the fuel filters, and fuel pumps. Justify the exclusion of these components from the scope of license renewal.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

D-RAI 2.3.3.13-2

The FNP UFSAR identifies the cable fire barrier, such as Kaowool, needed to meet the requirements of 10 CFR 50.48, Appendix R. No reference to these fire barriers is made in LRA Section 2.3.3.13 or Section 2.4. Identify where these barriers are addressed in the scoping and screening process. Confirm that they are subject to an AMR, or justify their exclusion from the scope of license renewal and from being subject to an AMR in accordance with the requirements of 10 CFR 54.4(a)(3) and 10 CFR 54.21(a)(1), respectively.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

D-RAI 2.3.3.13-3

According to the FNP UFSAR, in certain area of the plant, such as the cable spreading room, structural steel members are provided with sprayed-on fire resistive materials. These materials are not discussed in either the scoping and screening or the aging management sections of the LRA. Confirm that the fire resistive coatings for structural steel members are in scope and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1), respectively, or justify their exclusion.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

2.3.3.16 Demineralized Water

D-RAI 2.3.3.16-1

LRA Tables 2.3.3.16 and 3.3.2-16 list filter casings as components that are subject to an AMR. However, license renewal boundary drawings D-175047L and D-205047L do not show any filter as being within the scope of license renewal. Provide drawings or descriptive information that identifies the filter casings in the demineralized water system that are within scope of license renewal and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1), respectively.

Discussion: The staff and the applicant did not reach an agreement concerning the clarification of the scope for 10 CFR 54.4 (a)(2) components. This D-RAI and its response will be discussed again in a future telephone conference or meeting.

2.3.3.19 Liquid Wastes and Drains (LW&D) System

D-RAI 2.3.3.19-1

Note 5 of License renewal boundary drawing D-506447L states that the LW&D system contains running traps and drain plugs that are non-safety-related but required to ensure that the penetration room filtration system will draw sufficient vacuum in response to a fuel handling accident and during recovery from certain DBAs. LRA Section 2.1.3.2 states that the running traps and floor drain plugs have been evaluated for aging effects. The LRA section lists floor

drain plugs in Table 2.3.3.19. However, running traps are not included in Table 2.3.3.19. Justify the exclusion of running traps from being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

D-RAI 2.3.3.19-2

- a. LRA Section 2.3.3.19 states that the containment cooler condensate level monitoring subsystem is conservatively included in the scope of license renewal and is credited in the FNP CLB as a means to detect reactor coolant pressure boundary leakage as part of the LBB analyses. Section 5.2.7.1.1 of the UFSAR states that the condensate measuring system permits measurements of liquid runoff from the drain pans under each containment cooler fan unit. It consists of a vertical standpipe, valves, and standpipe level instrumentation installed in the drain piping of the reactor containment fan cooler unit. The staff is unable to find the vertical standpipes on license renewal boundary drawings D-175004L (Unit 1) and D-205004L (Unit 2). Confirm that these standpipes are within the scope of license renewal and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1), respectively.
- b. License renewal boundary drawing D-205004L (Unit 2) shows two atmospheric vents at locations E11 and F8. The vent shown at location F8 is within the scope of license renewal. However, the vent shown at location E11 is not in scope of license renewal. Clarify the intended function of these vents and justify the exclusion of the latter vent from the scope of license renewal in accordance with the requirements of 10 CFR 54.4(a).
- c. Containment cooler condensate drains are shown on license renewal boundary drawings D-175004L (Unit 1) and D-205004L (Unit 2) at location E8, E9, E10 and E11. However, containment cooler condensate drains are not listed in LRA Table 2.3.3.19. Clarify if these drains are considered to be part of the component type, "piping", or some other component type listed in Table 3.3.2-19. If not, justify the exclusion of this component from being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1). Also, clarify if containment cooler condensate drains are supplied with traps or screens to prevent blockage in the standpipe. If so, justify the exclusion of containment cooler condensate drains from Table 2.3.3.19 as being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).
- d. A 3-inch atmospheric vent is shown on license renewal boundary drawing D-175004L (Unit 1) at location E8. Two 2-inch atmospheric vents are shown on license renewal boundary drawings D-175005L (Unit 1) and 205005L (Unit 2) at locations A11 and D11. Vents are passive long-lived components and are not listed in LRA Table 2.3.3.19. Clarify if vents are considered to be part of the component type, "piping", in

Table 3.3.2-19. If not, justify the exclusion of this component from being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

D-RAI 2.3.3.19-3

The reactor coolant pump oil drip pan is shown on license renewal boundary drawing D-175005L (Unit 1) and D-205005L (Unit 2) at location C12 as within the scope of license renewal. The reactor coolant pump oil drip pan is a passive long-lived component. However, the reactor coolant pump oil drip pan is not listed in Table 2.3.3.19. Justify the exclusion of this component from LRA Table 2.3.3.19 as being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

D-RAI 2.3.3.19-4

Prevention of internal flooding is not listed as an intended function of the waste disposal system. Verify that none of the floor drains, equipment drains and waste disposal system components are credited in the FNP internal flooding analysis.

Discussion: The staff and the applicant did not reach an agreement concerning the clarification of scope for 10 CFR 54.4(a)(2) components. This D-RAI and its response will be discussed again in a future telephone conference or meeting.

D-RAI 2.3.3.19-5

Section 2.3.3.19 of the LRA states that the compartment/room pressure sensors (assigned to the FNP liquid waste and drains system) that isolate the CVCS letdown line in the event of a CVCS letdown line rupture are addressed as part of the high-energy-line-break (HELB) detection system boundary. In addition, LRA Section 2.3.3.17 states that the HELB detection system includes compartment/room pressure and level sensors for the FNP liquid waste and drains system. However, the license renewal boundary drawings cited for the HELB detection system do not refer to the liquid waste and drains systems. Clarify why the liquid waste and drains systems are not listed on the license renewal boundary drawings for the HELB detection system.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

2.3.3.21 Potable and Sanitary Water System

D-RAI 2.3.3.21-1

The potable and sanitary water system is non-safety-related, but is in the scope of license renewal due to the potential for spatial interaction with safety-related components according to 10 CFR 54.4(a)(2). LRA Table 2.3.3.21 provides a list of the components that are subject to an AMR. LRA Section 2.3.3.21 does not provide or reference any license renewal boundary drawings associated with the potable and sanitary water system. Section 9.2.4.2 of the UFSAR states that the P&ID for the potable and sanitary water system is shown in drawing D-170127. However, this drawing has not been provided to the staff for review.

For the staff to complete its review, provide a description or boundary drawing which identifies the components of the potable and sanitary water system considered to be within the scope of license renewal and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1), respectively.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

2.3.3.22 Radiation Monitoring System

D-RAI 2.3.3.22-1

Section 2.3.3.22 of the LRA states that “the process and effluent radiological monitoring portion of the radiation monitoring system is used to monitor process and effluent streams during normal operations and postulated accidents to provide indication and record releases of radioactive materials generated and to initiate automatic system responses. The in-scope portions are addressed as part of the LRA system that includes the process or effluent being monitored.” The in-process radiation monitoring elements (RE-0020A/B and RE-0017A/B) shown on the license renewal boundary drawings for the CCW and OCCW systems are installed in-line and therefore serve a pressure boundary intended function. However, these components are not listed in the LRA tables as being subject to an AMR. LRA Section 2.3.3.22 does not provide a list of the systems that contain the process or effluent being monitored, nor reference any boundary drawings associated with the radiation monitoring system. Therefore, the staff cannot confirm that the SSCs meeting the requirements of 10 CFR 54.4(a) are included within the scope of license renewal. Provide a list of the LRA systems which include process or effluent being monitored by components of the radiation monitoring system.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI.

2.3.4.4 Auxiliary Feedwater (AFW) System

D-RAI 2.3.4.4-1

UFSAR Section 6.5.2.2.2 states that “Turbine bearings are lubricated by a forced feed lube oil system driven from the turbine shaft. Lube oil cooling water is supplied from the first stage of the auxiliary feedwater pump discharge and returned to the pump via the pump balancing line. This arrangement ensures a supply of cooled lube oil whenever the turbine is operating.” Since the AFW pump turbine drive must be operable for the AFW system to perform its intended function, the staff considers the turbine lube oil subsystem to be within the scope of license renewal.

LRA Table 2.3.4.4 lists the components of the AFW system that are subject to an AMR. Some items included are: Filters (casing), Oil Cooler (shell), Oil Cooler (channel head), Oil Cooler (tube sheet), Oil Cooler (tubes). These components comprise part of the turbine lube oil subsystem. The AFW pump and its turbine drive are shown on license renewal boundary drawings D-175007 and D-205007L (location H5 on both drawings) and also on D-175033L and D-205033L (sheet 2, location E3 on both drawings). However, the turbine lube oil subsystem and its components are not shown on these drawings.

Identify which cooling water system is used to cool the lube oil in the heat exchanger. Confirm that all components of the turbine lube oil subsystem (AFW system) are within the scope of license renewal and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 54.21(a)(1), respectively; or provide drawings which show the turbine lube oil subsystem and all of its components, and identify those components considered to be within the scope of license renewal and subject to an AMR.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. This D-RAI will be sent as a formal RAI. (Applicant and staff need to discuss applicant’s inadvertent omission of component type in AMR table for Section 2.3.4.4.)

D-RAI 2.3.4.4-2

License renewal boundary drawing D-175016L, sheet 1, identified a symbol at location B10 as "Start-up Strainer Temporary". This symbol appears on license renewal boundary drawings D-175007L and D-205007L, sheet 1, at locations B4, E4, H4 for both drawings, and is shown as within the scope of license renewal. However, this component is not listed in LRA Table 2.3.4.4, which lists those components subject to an AMR. This component is passive and long-lived and should be subject to an AMR, in accordance with the requirements of 10 CFR 54.21. Justify the exclusion of these components from Table 2.3.4.4.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

2.3.4.5 Auxiliary Steam and Condensate Recovery System

D-RAI 2.3.4.5 -1

LRA Section 2.3.4.5 under "License Renewal Drawings" makes reference to only one drawing (D-506447, sheet 1). This is not a license renewal boundary drawing and, therefore, does not identify components considered to be within the scope of license renewal. An examination of the LRA boundary drawing index identified only one boundary drawing for each unit whose title includes the words "Auxiliary Steam System". (D-175033L, sheets 1 and 2; D-205033L, sheets 1 and 2, titled "Main Steam and Auxiliary Steam Systems"). Drawings D-175033L and D-205033L, however, do not demarcate the two systems. Additionally, no drawing listed in the index includes the condensate recovery system in its title.

LRA Tables 2.3.4.5 and 2.3.4.1 list the component types subject to an AMR for the Auxiliary Steam and Condensate Recovery System and the Main Steam System, respectively. In the absence of boundary drawings which demarcate the two systems, the components which comprise the Auxiliary Steam and Condensate Recovery System and those belonging to the Main Steam System cannot be identified. As a result, the staff is unable to determine whether all components subject to an AMR have been identified in these tables, in accordance with NUREG-1800, Section 2.3.3.2.

Provide drawings and/or other documentation that demarcate the boundaries of the Auxiliary Steam and Condensate Recovery System and that will allow the staff to determine whether all components within the scope of license renewal and subject to an AMR (in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1)) have been properly identified. Additionally, provide the locations of the specific components listed in Table 2.3.4.5.

Discussion: The staff and the applicant did not reach an agreement concerning the clarification of scope of 10 CFR 54.4 (a)(2) components. This D-RAI and its response will be discussed again in a future telephone conference or meeting.

D-RAI 2.3.4.5-2

For the staff to complete its review, please clarify whether the "auxiliary steam supply system" and the "auxiliary steam and condensate recovery system" are the same systems and, if not, describe how these two systems differ. Section 1.2.2 of the FNP UFSAR states that the "Auxiliary Steam Supply System is shared by Units 1 and 2". If these systems are the same, provide license renewal boundary drawings showing which portions of the system are shared between the two units and are within the scope of license renewal in accordance with the requirements of 10 CFR 54.4(a).

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

D-RAI 2.3.4.5-3

LRA Section 2.3.4.5 states that the auxiliary steam and condensate recovery system is non-safety-related, but is considered within the scope of license renewal due to the potential spatial interactions of high energy piping/components (in the system) with safety-related SSCs, in accordance with 10 CFR 54.4(a)(2).

LRA Section 2.3.4.1 (main steam system) states that the “Main Steam System also supplies steam via the Auxiliary Steam System to the Turbine Driven Auxiliary Feedwater Pump” and that “portions of the Main Steam System from each steam generator up to and including the main steam isolation valves and the supply to the Turbine Driven Auxiliary Feedwater Pump are necessary for the safe shutdown of the plant and accident mitigation.” Therefore, since the supply lines (and associated components) from the main steam line to the auxiliary feedwater pump turbine perform a safety-related function, they should be within the scope of license renewal in accordance with 10 CFR 54.4(a)(1)(ii).

Explain why the auxiliary steam and condensate recovery system is considered non-safety-related in LRA Section 2.3.4.5.

Discussion: The staff and the applicant did not reach an agreement concerning the clarification of scope of 10 CFR 54.4(a)(2) components. This D-RAI and its response will be discussed again in a future telephone conference or meeting.

D-RAI 2.3.4.5-4

LRA Table 2.3.4.5 lists “strainers (shell)” as being subject to an AMR. However, after reviewing license renewal boundary drawings D-175033L, sheets 1 and 2, and D-205033L, sheets 1 and 2, the staff is unable to find components of this type on these drawings. The staff is concerned that other drawings (not referenced in the LRA) may contain components of this system that should be included within the scope of license renewal. Identify the drawings that contain the strainers referred to in LRA Table 2.3.4.5. If these drawings have not been provided to the staff previously, provide these drawings to the staff for review.

Discussion: The staff and the applicant did not reach an agreement concerning the clarification of scope of 10 CFR 54.4 (a)(2) components. This D-RAI and its response will be discussed again in a future telephone conference or meeting.

2.3.4.6 Turbine and Turbine Auxiliaries

D-RAI 2.3.4.6-1

LRA Section 2.3.4.6 states that, in accordance with 10 CFR 54.4(a)(2), “The non-safety related SCs of the turbine and turbine auxiliaries that are required to trip the turbine in response to an ATWS event and in response to a turbine overspeed event are conservatively included in the scope of license renewal for FNP.” However, there are no mechanical components of the turbine and turbine auxiliaries system that are identified as being subject to an AMR.

Since LRA Section 2.3.4.6 does not provide or reference any boundary drawings associated with the turbine and turbine auxiliaries system, the staff is unable to confirm your determination that this system does not contain mechanical components subject to an AMR. For the staff to complete its review, provide a description or license renewal boundary drawing that identifies the components of the turbine and turbine auxiliaries system, and that shows which SCs are considered to be within the scope of license renewal in accordance with the requirements of 10 CFR 54.4(a). Justify the exclusion of the mechanical components of this system from being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).

Discussion: The staff and the applicant did not reach an agreement concerning the clarification of the scope of components. This D-RAI will be discussed again in a future telephone conference or meeting.

3.3.2.1.13 Fire Protection AMR

D-RAI 3.3.2.1.13-1

LRA Table 3.3.2-13 identifies spray shields as a component type, as does LRA Section 2.3.3.13. Neither the section text nor the license renewal boundary drawings identify where or how these components are used. Describe these components and identify the locations where these components are used at FNP.

Discussion: The staff and the applicant agreed that the D-RAI and associated response were clear. The staff informed the applicant and the applicant agreed that this D-RAI will be combined with other D-RAIs that are of CLARIFYING and/or CONFIRMATORY in nature, and will be sent under one umbrella RAI.

**APPLICANT'S DRAFT RESPONSES TO
DRAFT REQUESTS FOR ADDITIONAL INFORMATION (D-RAIS)**

Section 2.3.3: Auxiliary Systems

2.3.3.3 Spent Fuel Pool Cooling and Cleanup System

D-RAI 2.3.3.3-1

Draft Response:

The Reactor Makeup Water hose station in the Spent Fuel Pool area provides an assured Seismic Category 1 source of make-up water to the pool. This capability was added during the initial operating license review (refer to the SER for FNP, NUREG- 75/034 dated 5/2/75 Section 1.6 item 19). This hose station and supply is in the scope of license renewal as described in LRA Section 2.3.3.23 and shown on the Reactor Makeup Water Storage System license renewal boundary drawings D175036L Sh1 and D205036L Sh 1. Demineralized water provides for normal makeup (non-borated) to the spent fuel pool for evaporative losses and is not required for any safety-related or regulated event. This section of piping does not perform an intended function applicable to the criteria of 10 CFR 54.4(a)(1) or (a)(3). Portions of the demineralized water supply are in the scope of license renewal under the criteria of 10 CFR 54.4(a)(2) as described in LRA Section 2.3.3.16.

2.3.3.4 Overhead Heavy and Refueling Load Handling System

D-RAI 2.3.3.4-1

Draft Response:

The containment polar crane, the reactor cavity manipulator crane, the spent fuel pool bridge crane, and the spent fuel cask crane are in the scope of license renewal and contain components subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1). The special tools and adapters used for lifting and handling the reactor vessel head, internals, and fuel assembly inserts are in the scope of license renewal but are not subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1). These devices are active components—they change configuration/move as part of their use. Additional discussion and clarification of the scoping method and results for load handling systems (cranes, hoists and monorails) is provided in responses to D-RAIs 2.3.3.4-2 and 2.4-3.

D-RAI 2.3.3.4-2

Draft Response:

Cranes and hoists were evaluated by the civil discipline for the FNP LRA. The approach used to scope civil/structural features inside structures housing safety-related SSCs addresses the potential for interaction of civil/structural non safety-related SSCs with safety-related SSCs that could result in the failure of a safety-related SSC to perform its function. This is described in Section 2.1.3.2 of the LRA. As indicated in the LRA, a spaces approach was used to place all

civil/structural components in a structure housing safety-related SSCs in scope for license renewal. Therefore, all cranes and hoists located above or near safety-related equipment were put into scope. Cranes and hoists components are included in the LRA based on the following approach. The cranes associated with overhead heavy and fuel-related load handling were grouped together in LRA Section 2.3.3.4 (to align with the NUREG-1801 grouping) with the components subject to an AMR identified in Table 2.3.3.4. All other cranes and hoists were included in scope as part of the overall evaluation of its structure in Section 2.4. The components subject to an AMR are included in the component type "Steel Components: All Structural Steel" listed in the Components Subject to an AMR table for the associated structure.

2.3.3.13 Fire Protection

D-RAI 2.3.3.13-1

Draft Response:

- a. The only in-scope carbon dioxide (CO₂) SSCs in the Turbine Building are those associated with the low pressure bulk CO₂ storage and supply system that supplies CO₂ to both Unit 1 and Unit 2 Auxiliary Building CO₂ systems. The auxiliary building CO₂ fire suppression equipment is relied upon to protect safety-related SSCs and ensure safe shutdown in the event of a fire as part of FNP's compliance with 10 CFR 50.48.

Drawing D-170384L sheet 2 is included as a boundary drawing because a portion of the in-scope boundary from another drawing continues on this drawing up to and including the isolating device. The Unit 1 Turbine Building low pressure CO₂ SSCs on the 155'0" elevation shown on the drawing are not in license renewal scope (i.e., not highlighted) because the fire suppression capability is not relied upon for compliance with 10 CFR 50.48. The 4 KV switchgear buses and 600 volt load center buses that are being fire protected by the CO₂ SSCs on the 155'0' elevation are not safety related and not relied upon for safe shutdown. These Unit 1 Turbine Building low pressure CO₂ suppression systems on the 155'0" elevation exist for commercial property protection. The system located between E-9 and G-9 on this drawing is the CO₂ suppression system for the non safety-related 4 KV switchgear bus 1E (system 1T-14), and as described above, is not in the scope of license renewal. The descriptive label for this equipment was inadvertently left off the license renewal drawing.

The CO₂ SSCs for the load center buses and 4 KV switchgear buses in the Unit 2 Turbine Building (D-200152L sheet 1) are not in the scope of license renewal because they are not relied upon for compliance with 10 CFR 50.48 (same explanation as above for Unit 1). This drawing is included as a boundary drawing because a portion of the inscope boundary from another drawing continues on this drawing up to and including the isolating device(s).

- b. Loss of the River Water System is discussed in UFSAR Section 9.2.1.2.3.1 which states "The station cooling water system is designed such that safe shutdown of the plant is not dependent on the river water system as a cooling water source" and "The storage pond alone serves as the ultimate heat sink for the plant." The River Water System is

located remote from the plant's safety-related structures (over 2000 feet from the Auxiliary Buildings and from the pond) and houses the river water pumps and related equipment, none of which are required for safe shutdown (including in the event of a fire) or to mitigate any accident. The portions of the River Water System within the scope of License Renewal (i.e., the Service Water pond level instruments) described in LRA Section 2.3.3.5 are located at the (Service Water) pond and not at or in proximity of the River Water Structure. CO2 systems located in the River Water Intake Structure for suppressing a fire in the switchgear are not in the scope of license renewal because the equipment is not relied upon for compliance with 10 CFR 50.48.

- c. The halon fire protection systems for the control system cabinet rooms for Unit 1 and Unit 2 are located in rooms 235 and 2235, respectively. The halon fire protection systems for the computer rooms for Unit 1 and Unit 2 are located in rooms 201 and 2201, respectively.

From UFSAR Section 9B, Attachment A, Fire Area Hazard Analysis for the control system cabinet rooms for Unit 1 and Unit 2 (fire areas 1-23 and 2-23, respectively),

“A total-flooding halon system is provided which is activated by detectors; however, the water hose station installed in room 234 [Unit 1] 2234 [Unit 2] outside of room 235 [Unit 1] 2235 [Unit 2] provides for fire suppression capabilities to comply with BTP APCSB 9.5-1.”

From UFSAR Section 9B, Attachment A, Fire Area Hazard Analysis for the computer rooms for Unit 1 and Unit 2 (fire areas 1-14 and 2-14, respectively),

“An automatic total-flooding halon system is provided, however, the CO2 hose reel located in room 210 [Unit 1] 2210 [Unit 2] provides for fire suppression capabilities to comply with BTP APCSB 9.5-1.”

It is noted that the CO2 hose reels are located in rooms outside of but near to the computer rooms. Therefore, the halon fire protection systems for the control system cabinet rooms and computer rooms for both FNP units remain in place but are not relied upon for 10 CFR 50.48 compliance. Therefore, these systems are not in the scope of license renewal.

- d. The fuel oil systems for the diesel engine fire pumps are identified on license renewal boundary drawing D-508562L, sheet 1. These components, which are located on the fire pump diesel skid, are in-scope and treated as an integral part of the diesel engine active assembly. They should have been highlighted on the drawing indicating that they are in-scope.

D-RAI 2.3.3.13-2

Draft Response:

Cable fire barriers, such as Kaowool and Maranite, were addressed in the scoping for Fire Barriers Credited in the CLB. These barrier materials were subjected to a commodity-based

aging management review and determined not to have aging effects requiring management. Kaowool is presently utilized as a fire barrier material in the Auxiliary building and Service Water Intake Structure only. Maranite is utilized in the seismic Category 1 Auxiliary Building, Diesel Generator Building and Service Water Intake Structure. Fire wraps and fire stops were inadvertently omitted as a component type from LRA Tables 2.4.2.1, 2.4.2.2 and 2.4.2.5. These tables should have included the following:

Component Type	Intended Function
Cable Fire Wrap and Fire Stops	Fire Barrier

Correspondingly, the aging management review summary Tables 3.5.2-2, 3.5.2-3 and 3.5.2-6 should have included the following:

Component Type <i>GALL Reference</i>	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Cable Fire Wrap and Fire Stops	Fire Barrier	Kaowool (Kaolin fiber insulation) Maranite (Calcium Silicate Board)	Inside	None	None Required	N/A	N/A	F

D-RAI 2.3.3.13-3

Draft Response:

Sprayed-on or trowelled-on fire resistive materials provided on in-scope structural steel members are in scope for license renewal and are subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1). Fire resistive structural steel protection is used in the Auxiliary Building (Cable Spreading Room) as well as on doors at the Diesel Generator building entrance to the cable tunnels. These coatings should have been identified in LRA Table 2.4.2.1 as follows:

Component Type	Intended Function
Structural steel & doors with sprayed-on or trowelled-on fire resistive material	Structural / support Fire Barrier Shelter / protection

Correspondingly, the aging management review summary Table 3.5.2-2 should have included the following:

Component Type <i>GALL Reference</i>	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Structural steel & doors with sprayed-on or trowelled-on fire resistive material	Structural / support Fire Barrier Shelter / protection	Steel	Inside	Loss of material	Structural Monitoring Program			F,48

Plant specific note 48:

The sprayed-on or trowelled-on fire resistive material has no aging effects requiring aging management. In the course of inspecting the underlying steel surfaces by the Structural Monitoring Program, any degradation in the sprayed-on or trowelled-on coating would however be identified and remedied.

2.3.3.16 Demineralized Water

D-RAI 2.3.3.16-1

Draft Response:

The filters are included in the scope of license renewal in accordance with 10 CFR 54.4(a)(2) due to a potential spatial interaction with safety related components. Items included in scope for 10 CFR 54.4 (a)(2) are not highlighted on the system boundary drawings. For spatial interaction issues, license renewal boundary drawing D506447L identifies, for each applicable LRA System, the room(s) where the potential spatial interaction occurs.

In this case, the filters, N1P11F001 and N1P11F003, are located in Auxiliary Building Rooms 186 and 342 and have a spatial interaction with safety-related SSCs in those rooms. The filters are shown on license renewal boundary drawing D175047L sheet 1 at coordinates E9 and F5.

2.3.3.19 Liquid Wastes and Drains (LW&D) System

D-RAI 2.3.3.19-1

Draft Response:

A running trap is simply a “U” shaped arrangement of pipe and fittings designed to provide a water seal. Therefore running traps are included in Table 2.3.3.19 as “Piping,” and have been evaluated for aging effects accordingly.

D-RAI 2.3.3.19-2

Draft Response:

- a. The "vertical standpipes" described in the UFSAR are within the scope of license renewal and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a)(1), respectively. The standpipes are vertically oriented piping and are part of the in-scope piping upstream of the level transmitters depicted on license renewal boundary drawings D-175004L (Unit 1) and D- 205004L (Unit 2). SNC has included the standpipes as part of the component type "piping" in Table 3.3.2-19 and has evaluated them for aging effects accordingly.
- b. The atmospheric vent for the containment cooler condensate level monitoring subsystem at location E11 on license renewal boundary drawing D205004L Sh.1 (Unit 2) is in the scope of license renewal and should have been shown highlighted similar to the vent shown at location F8. This vent is correctly shown as in scope on the Unit 1 drawing (D175004L Sh.1). These vent paths are part of the design for assuring proper level indication and monitoring of the condensate flow. The vent piping (including the vent at location E11 on drawing D205004L Sh. 1) was included LRA Table 2.3.3.19 as part of the component type "piping" with a component intended function of "pressure boundary" and subjected to an aging management review.
- c. The drains for the containment cooler drain pans are composed of piping components (piping, fittings, etc.), are subject to an aging management review in accordance with the requirements of 10 CFR 54.21(a)(1), and are part of the component type "piping" in Table 3.3.2-19. There are no screens or traps provided to prevent blockage in the standpipe.
- d. The atmospheric vents are shown on their respective license renewal boundary drawings as in the scope of license renewal. These vents are passive long-lived components that are comprised of piping that is open to the atmosphere. The vents are included in the LRA Table 2.3.3.19 as part of the component type "piping."

D-RAI 2.3.3.19-3

Draft Response:

The reactor coolant pump oil drip pans are subject to aging management review, and are included in LRA Table 2.3.3.19 as part of the component type "tanks".

D-RAI 2.3.3.19-4

Draft Response:

UFSAR Appendix 3K, describes the internal flooding events evaluated in the current licensing basis for FNP. Aspects credited include sensors that provide line break detection (see Section 2.3.3.17 of the LRA, "High Energy Line Break Detection System"), watertight rooms, and sump high level alarms. SNC has included the sumps and instrumentation in the scope of LR. The

sump level instrumentation is scoped with the plant-wide electrical commodities, is active, and is not subject to an aging management review. SNC has included the sumps and other civil features (e.g., watertight rooms and doors) in the scope of license renewal under the spaces approach used for civil/structural commodities in seismic Category I structures.

Some rooms evaluated for flooding in the Appendix 3K analysis utilize drain piping to connect to a sump in an adjoining area that is used to detect the line failure. This non safety-related piping functionally supports the safety-related use of the sump and sump instrumentation to detect a line failure and therefore was evaluated in accordance with 10 CFR 54.4(a)(2). The drain piping that connects the room to an adjoining sump is embedded in concrete and normally dry. Our evaluation did not identify any credible aging-effect that could potentially result in a failure of the drain piping (and surrounding concrete) to direct flow to the sump, therefore the piping was not put in the scope of license renewal.

In the event of a fire, drains are available to serve as a support system to remove water used in fire suppression. However, the drains are a secondary support system to fire suppression. The waste disposal system was neither designed nor installed in accordance with the design specifications for the fire protection system. In scoping of SSCs for the regulated events of 10 CFR 54.4(a)(3) including fire protection (10CFR50.48), consideration of hypothetical failures or second-, third-, or fourth-level support systems is not required. This is consistent with the NRC's guidance on cascading for 10 CFR 54.4(a)(3) as described in Table 2.1-2 of NUREG-1800. Therefore, SNC has not included any floor drains, equipment drains, or other waste disposal system components in scope for the regulated event of a fire under 10 CFR 54.4(a)(3).

D-RAI 2.3.3.19-5

Draft Response:

The license renewal boundary drawings for the HELB detection system in LRA Section 2.3.3.17 include drawings D175039L sheet 1 (Unit 1) and D205039L sheet 1 (Unit 2). Table B on each of these boundary drawings lists eight instruments with "G21" Total Plant Numbering System (TPNS) designators. System G21 is the TPNS designator that corresponds to the LRA system "Liquid Waste and Drains" described in Section 2.3.3.19 of the LRA. The FNP TPNS designators were previously provided to the NRC Staff in Draft Response to RAI 2.2-3.

These HELB detection instruments are listed in a tabular format because there is no connected process piping. The system consists entirely of detection instruments and the associated sensing lines. The instruments are shown in the scope of license renewal on these boundary drawings and assigned to the HELB Detection System consistent with the descriptions provided in LRA Sections 2.3.3.17 and 2.3.3.19 and are included on the boundary drawings referenced in LRA Section 2.3.3.17.

2.3.3.21 Potable and Sanitary Water System

D-2.3.3.21-1

Draft Response:

Section 2.3.3.21 states the Potable and Sanitary Water System is non safety-related and brought into scope only for 10 CFR 54.4(a)(2) concerns. Mechanical SSCs that are in scope for license renewal only as a result of 10 CFR 54.4(a)(2) considerations were not highlighted on mechanical boundary drawings derived from the FNP Piping and Instrumentation Diagrams (P&IDs). Only those mechanical SSCs that are in scope for 10 CFR 54.4(a)(1) and/or 10 CFR 54.4(a)(3) were highlighted on the P&ID-based license renewal boundary drawings. The 10 CFR 54.4(a)(2) scoping results were presented separately on license renewal boundary drawing D506447L sheet 1, "10 CFR 54.4(a)(2) Scoping Summary for Mechanical Components" in a tabular format. The SNC scoping process for 10 CFR 54.4(a)(2) is described in Section 2.1.3.2 of the LRA. SNC elected to depict the 10 CFR 54.4(a)(2) scoping boundary results in a tabular format rather than on P&ID-based drawings since piping diagrams do not include the features necessary to present the results with clarity. For fluid-bearing mechanical SSCs that are only in-scope for a spatial interaction concern with a safety-related SSC, P&ID-based boundary drawings do not depict the spatial relationship with the safety-related SSCs that define the basis for the scoping decision. The piping scope would terminate in "mid-air" with no obvious basis without numerous notes. The boundary is defined by the physical layout and location in the plant (e.g., portion of the system that is located in room XYZ). Therefore, SNC has chosen to show the scope of systems with components brought into scope for 10CFR54.4(a)(2) in the tabular format shown on D506447L. The Potable and Sanitary Water (P&SW) LRA System includes the Sanitary Water System and the Plant Hot Water Heating System. The Sanitary Water System supplies domestic water for use throughout the plant. The Plant Hot Water Heating System carries water from the plant heating system heat exchanger to air handling heating coils located throughout the Auxiliary Building and is in scope for high energy line considerations as described in UFSAR Section 3K.4.2.4. The portions of the P&SW System that are brought into scope for license renewal per criterion 10CFR54.4(a)(2) for spatial interaction were identified on license renewal boundary drawing D506447L (Sh. 1) by listing the room numbers that include the in-scope SSCs. LRA Table 2.3.3.21 provides a listing of the component types that are subject to an AMR and Table 3.3.2-21 identifies the applicable material and environment combinations for these component types and the aging management review results. The in-scope portion of the Plant Hot Water Heating System in these rooms includes closure bolting, piping components (piping, fittings, etc.), valves, heat exchangers, strainer (shell), and tanks.

The in-scope portion of the Sanitary Water System includes closure bolting, piping components (piping, fittings, etc.), valves, and tanks.

2.3.3.22 Radiation Monitoring System

D-RAI 2.3.3.22-1

Draft Response:

Radiation monitors that are installed in-line on an in-scope portion of a process system serve a pressure boundary intended function and therefore are in the scope of license renewal. The intent of the description in Section 2.3.3.22 of the LRA was to clarify to the NRC staff that for this situation, SNC included the radiation monitor in the scoping results for the mechanical system being monitored. The monitors are shown in the inscope boundary on the process system's license renewal boundary drawing (there are no radiation monitoring system license renewal boundary drawings). The intent of the last paragraph of the *System Description* for Section 2.3.3.22 was to clarify the function of the radiation monitors are instrumentation and addressed by SNC in the scoping and screening results in Section 2.5, "Electrical and Instrumentation and Controls Systems." The radiation sensing instrumentation addressed in the electrical scoping and screening process performs its function utilizing a change in property as defined by 10 CFR 54.21 (a)(1), and therefore is active and not subject to an aging management review.

In some applications, the in-line radiation monitors connect to the process system using piping/ductwork fittings (e.g., in-line piping tee, etc.) that were provided as part of the monitor. For this situation, the items were treated the same as piping or ductwork fittings and included in the component type "piping" for piping applications, and in the component type "ducts and fittings" for ventilation applications. These components were subject to an AMR accordingly.

The following table has been developed in response to the staff's request to provide a listing of the LRA systems which include process or effluent being monitored by components of the radiation monitoring system. This table provides a list of those radiation monitors that are part of a mechanical LRA system's in-scope pressure boundary.

Radiation Monitors That Are Part of A Mechanical LRA System's
In-Scope Pressure Boundary

Radiation Monitor	Description	LRA System	LRA Section	License Renewal Boundary Drawing(s)
R-10	Penetration Room Filtration Particulate Monitor	A&RAV	2.3.3.10	D-175045L D-205045L
R-11	Containment Air Particulate Process Monitor	PCHVAC	2.3.3.11	D-175010L Sh. 2 D-205010L Sh. 2 (See Note 1)
R-12	Containment Radioactive Gas Monitor	PCHVAC	2.3.3.11	D-175010L Sh. 2 D-205010L Sh. 2 (See Note 1)
R-25A, B	Spent Fuel Pool Ventilation Noble Gas Monitor	A&RAV	2.3.3.10	D-175045L D-205045L
R-67	Containment Post Accident Particulate/Iodine/ Noble Gas Grab Sampler	PCHVAC	2.3.3.11	D-175010L Sh. 2 D-205010L Sh. 2
R-17A, B	Component Cooling Water Pump Suction Monitor	CCW	2.3.3.6	D-175002L Sh. 1 D-205002L Sh. 1
R-35A, B	Control Room Makeup Air Inlet Noble Gas Monitor	CRAV	2.3.3.9	D-205012L Sh. 1
R-20A, B	Containment Cooler Service Water Outlet Monitor	OCCW	2.3.3.5	D-175003L Sh. 1 D-205003L Sh. 1

R-24A, B	Containment Purge Noble Gas Monitor	PCHVAC	2.3.3.11	D-175010L Sh. 2 D-205010L Sh. 2
R-29B	Plant Vent Stack Particulate/Iodine/ Noble Gas Monitor	A&RAV	2.3.3.10	D-175045L D-205045L

Note 1:

Included in the above table are containment air particulate (R-11) and radioactive gas (R-12) monitors that provide reactor coolant leakage detection as stated in UFSAR Section 17.3.5. These monitors were inadvertently not shown in-scope on the PCHVAC/Containment Isolation boundary drawings D-175010L (sheet 2) and D-205010L (sheet 2). On these drawings, the components downstream of the outboard containment isolation valves HV-3657 and HV-3658 up to including R-11 and R-12 and including the in-line piping portion of the containment radiation monitor (R-67) should have been shown in-scope for license renewal, and subject to an AMR pursuant to 10 CFR 54.4(a) and 10 CFR 54.21(a). The Containment Isolation system component types in Table 2.3.2.2 already include the component types subject to an AMR and there is no impact to the aging management review presented in Table 3.2.2-2.

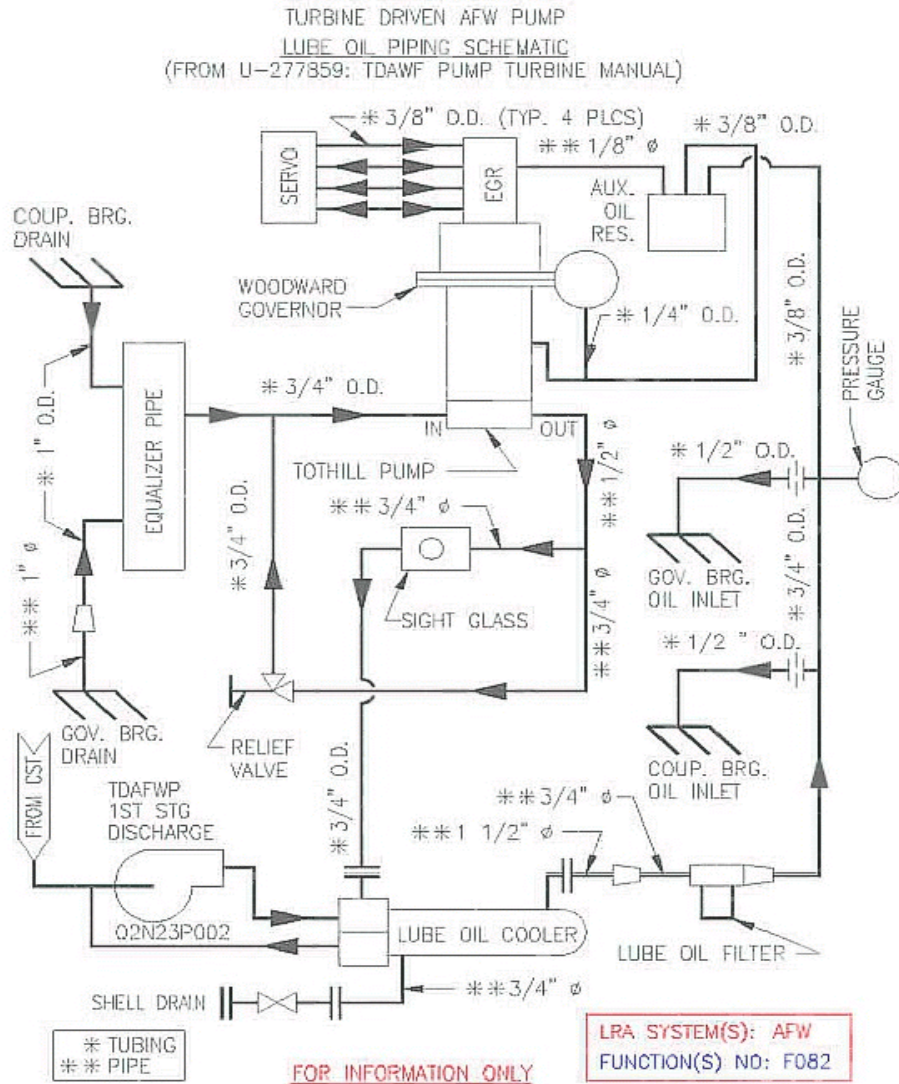
2.3.4.4 Auxiliary Feedwater (AFW) System

D-RAI 2.3.4.4-1

Draft Response:

As stated in the UFSAR, "Lube oil cooling water is supplied from the first stage of the auxiliary feedwater pump discharge and returned to the pump suction via the pump balancing line." Therefore, the cooling water supply used to cool the lube oil heat exchanger for the turbine-driven Auxiliary Feedwater (AFW) pump is supplied directly from the AFW System. As stated in Section 2.3.4.4 of the LRA, the AFW System water source is the Condensate Storage Tank.

In response to the staff's request, Figure 2.3.4.4-1, "Turbine Driven AFW Pump Turbine Lube Oil Piping Schematic", was developed to identify the components of this subsystem and to present SNC's scoping results in accordance with the requirements of 10 CFR 54.4(a).



The component types subject to an aging management review (AMR) in accordance with 10 CFR 54.21(a) for the Turbine Driven AFW Pump Turbine Lube Oil Subsystem are identified in the following table.

Table 2.3.4.4-1 *Turbine Driven AFW Pump Turbine Lube Oil Subsystem Component Types Subject to Aging Management Review and Their Intended Functions*

Component Type	Intended Function
Closure Bolting	Pressure Boundary
Filters (casing)	Pressure Boundary
Flow Orifice/Element	Flow Restriction Pressure Boundary
Oil Cooler (shell)	Pressure Boundary
Oil Cooler (channel head)	Pressure Boundary
Oil Cooler (tube sheet)	Pressure Boundary
Oil Cooler (tubes)	Exchange Heat Pressure Boundary
Piping	Pressure Boundary
Pump Casings	Pressure Boundary
Sight Glasses	Pressure Boundary
Tanks (Auxiliary Oil Reservoir)	Pressure Boundary
Valve Bodies	Pressure Boundary

Three of the component types listed - "Flow Orifice/Element", "Sight Glasses", and "Tanks" - were not included in the LRA as part of the Turbine Driven AFW Pump Turbine Lube Oil Subsystem of the AFW System. These component types were identified during the development of this response. The "Sight Glasses", and "Tanks" component types and associated intended functions should have been included in Table 2.3.4.4 of the LRA (the "Flow Orifice/Element" component type is already in the table). Aging management reviews for these components were performed.

The AFW System aging management review summary in Table 3.4.2-4 of the LRA should have included the following:

Component Type <i>GALL Reference</i>	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Flow Orifice/Element	Flow Restriction Pressure Boundary	Stainless Steel	Lube Oil	None	None Required	N/A	N/A	J
			Inside	None	None Required	N/A	N/A	J
Sight Glasses	Pressure Boundary	Glass	Lube Oil	None	None Required	N/A	N/A	J
			Inside	None	None Required	N/A	N/A	J
Tanks (Auxiliary Oil Reservoir)	Pressure Boundary	Carbon Steel	Lube Oil	None	None Required	N/A	N/A	J
			Inside	Loss of material	External Surfaces Monitoring Program	VIII.H.1-b		A

D-RAI 2.3.4.4-2

Draft Response:

The P&IDs as drawn indicate that the system is designed to provide for installation of temporary startup strainers. These strainers were removed after initial system startup testing and are no longer used. Pipe spool pieces are installed in these locations and are included as part of the component type "piping" in the LRA tables of components subject to an AMR.

2.3.4.5 Auxiliary Steam and Condensate Recovery System

D-RAI 2.3.4.5 -1

Draft Response:

FNP has two systems that contain the phrase "Auxiliary Steam" in the system title. One is the Auxiliary Steam System which supplies steam to the Auxiliary Feedwater System Turbine Driven Pump (FNP system number N12), and the other is the Auxiliary Steam and Condensate Recovery System (FNP system number P20).

The Auxiliary Steam System is included with the Main Steam System as described in LRA Section 2.3.4.1. The Auxiliary Steam System is the steam supply lines to the turbine-driven auxiliary feedwater pump turbine from the main steam lines. The Auxiliary Steam System is shown on license renewal boundary drawings D175033L sheet 2 (for Unit 1) and D205033L sheet 2 (for Unit 2) and described in UFSAR Sections 10.3.2.1 and 6.5.2.1. LRA Table 2.3.4.1 includes the component types subject to an AMR for the Auxiliary Steam System.

The non safety-related Auxiliary Steam and Condensate Recovery (AS&CR) System is in the scope of license renewal under 10 CFR 54.4(a)(2) considerations for spatial interaction with safety-related SSCs and high energy piping as stated in LRA Section 2.3.4.5. The portion of the system that is in the scope of license renewal for high energy line considerations is described in detail in UFSAR Section 3K.4.2.3.1. The portions of the AS&CR System that are brought into scope for license renewal per criterion 10CFR54.4(a)(2) for spatial interaction concerns were identified on license renewal boundary drawing D506447L (Sh. 1) by listing the room numbers where the spatial interaction concerns occur. Therefore, drawing D506447L sheet 1 identifies the locations of the components listed in LRA Table 2.3.4.5.

SNC elected to depict the 10 CFR 54.4(a)(2) scoping boundary results in a tabular format rather than on P&ID-based drawings since piping diagrams do not include the features necessary to present the results with clarity. For fluid-bearing mechanical SSCs that are only in-scope for a spatial interaction concern with a safety-related SSC, P&ID-based boundary drawings do not depict the spatial relationship with the safety-related SSCs that define the basis for the scoping decision. The piping scope would terminate in "mid-air" with no obvious basis without numerous notes. The boundary is defined by the physical layout and location in the plant (e.g., portion of the system that is located in room XYZ). Therefore, SNC has chosen to show the scope of systems with components brought into scope for 10CFR54.4(a)(2) in the tabular format shown on D506447L.

D-RAI 2.3.4.5 -2

Draft Response:

The “Auxiliary Steam Supply System” listed in FNP UFSAR section 1.2.2 is the same as the “Auxiliary Steam and Condensate Recovery System” described in LRA section 2.3.4.5. [Please note, however, that the “Auxiliary Steam Supply System” listed in FNP UFSAR section 1.2.2 is not the same as the “Auxiliary Steam System” described in LRA section 2.3.4.1. The Auxiliary Steam System described in LRA section 2.3.4.1 is the supply lines from the main steam lines to the turbine-driven auxiliary feedwater pump turbine. These lines are shown on license renewal boundary drawings D175033L sheet 2 (for Unit 1) and D205033L sheet 2 (for Unit 2) and are described in UFSAR Sections 10.3.2.1 and 6.5.2.1.]

The shared components of the Auxiliary Steam and Condensate Recovery System are the auxiliary steam generator, steam supply piping connecting the auxiliary steam generator to the Unit 1 auxiliary steam distribution piping, and condensate return piping from each unit to the auxiliary steam generator. The auxiliary steam generator is no longer operational as stated in LRA section 2.3.4.5. All shared components are located in the Turbine Buildings, and are not in scope for License Renewal because they do not perform any intended function as described in 10 CFR 54.4(a).

Refer to the response to D-RAI 2.3.4.5-1 for information on the in-scope portions of the Auxiliary Steam and Condensate Recovery System. The in-scope components are not shared between the units.

D-RAI 2.3.4.5 -3

Draft Response:

The “Auxiliary Steam and Condensate Recovery System” described in LRA section 2.3.4.5 is not the same as the “Auxiliary Steam System” described in LRA section 2.3.4.1. The Auxiliary Steam and Condensate Recovery System draws steam from the main steam headers in the Turbine Building of each unit to supply steam loads such as the condenser air ejectors, ventilation heating, etc. The steam extraction points are downstream of the main steam isolation valves. The Total Plant Numbering System (TPNS) designator for the Auxiliary Steam and Condensate Recovery System is “P20.” As stated in LRA section 2.3.4.5, this system is non safety-related. Refer to LRA section 2.3.4.5 for a complete description of this system.

The “Auxiliary Steam System” described in LRA section 2.3.4.1 draws steam from the Main Steam System of each unit upstream of the main steam isolation valves to provide motive force for each unit’s turbine driven auxiliary feedwater pump. The TPNS designator for the Auxiliary Steam System is “N12.” This system is shown in its entirety on mechanical boundary drawings D-175033L, sheets 1 & 2, and D-205033, sheets 1 & 2. The Auxiliary Steam System piping which supplies steam to the turbine driven auxiliary feedwater pumps is shown as in scope on these drawings. Refer to LRA section 2.3.4.1 for a complete description of this system.

D-RAI 2.3.4.5-4

Draft Response:

The non safety-related Auxiliary Steam and Condensate Recovery System is solely in scope for license renewal under 10 CFR 54.4(a)(2) for spatial interaction with safety related SSCs considerations including high energy piping considerations as stated in LRA Section 2.3.4.5. The “strainers (shell)” component type listed in LRA Table 2.3.4.5 represents strainers shown on FNP P&IDs D175006, sheet 1 and D205006, sheet 1. The strainers are between the Auxiliary Steam Condensate Tank and the Auxiliary Steam Condensate pumps and have a spatial interaction concern with nearby safety related electrical components in Rooms 189 and 2189. License renewal boundary drawing D506447L sheet 1 identifies the spatial interaction concern in these rooms for this system.

Mechanical SSCs that are in scope for license renewal only as a result of 10 CFR 54.4(a)(2) considerations were not highlighted on mechanical boundary drawings derived from the FNP piping and Instrumentation Diagrams (P&IDs). Only those mechanical SSCs that are in scope for 10 CFR 54.4(a)(1) and/or 10 CFR 54.4(a)(3) were highlighted on the P&ID-based license renewal boundary drawings. The 10 CFR 54.4(a)(2) scoping results were presented separately on license renewal boundary drawing D506447L sheet 1, “10 CFR 54.4(a)(2) Scoping Summary for Mechanical Components” in a tabular format.

The SNC scoping process for 10 CFR 54.4(a)(2) is described in Section 2.1.3.2 of the LRA. SNC elected to depict the 10 CFR 54.4(a)(2) scoping boundary results in a tabular format rather than on P&ID-based drawings since piping diagrams do not include the features necessary to present the results with clarity. For example, these drawings do not include piping supports and anchors which are necessary to define the attached piping scope. Without additional notes, the piping scope would terminate in “mid-air” with no obvious basis. Similarly, for fluid-bearing mechanical SSCs that are in-scope for a spatial interaction concern with a safety-related SSC, P&ID-based boundary drawings do not depict the spatial relationship with the safety-related SSCs that define the basis for the scoping decision. Once again, the piping scope would terminate in “mid-air” with no obvious basis without numerous notes. The boundary is defined by the physical layout and location in the plant (e.g., portion of the system that is located in room XYZ). Therefore, SNC has chosen to show the scope of systems with components brought into scope for 10CFR54.4(a)(2) in the tabular format shown on D506447L.

2.3.4.6 Turbine and Turbine Auxiliaries

D-RAI 2.3.4.6-1

Draft Response:

The Turbine Generator (TG) LRA boundary includes the valves, piping, and associated components for the following turbine trips: ATWS/AMSAC, overspeed (electrical and mechanical), and reactor trip system (RTS).

A turbine trip is initiated by dropping the fluid header pressure in either of the trip fluid headers (reheat stop & throttle valve trip fluid header and the intercept & governor valve trip fluid header). These trip fluid headers can function independently or together and are affected by the interface valve and by the 20/ET solenoid valve. Opening either of these valves will drop fluid header pressure and close the reheat stop, intercept, throttle, and/or governor valves associated with the main turbine thus tripping the turbine. The turbine trip function is called upon in response to a normal turbine trip, reactor trip, turbine overspeed, and a turbine trip resulting from ATWS.

A review of the turbine controls design and component functions during the mechanical system screening process concluded that the trip functions are performed by active components, and that any passive component failure (loss of pressure boundary) would not prevent the performance of the system intended functions. Therefore, the screening review concluded that the passive turbine controls components do not perform any intended functions for license renewal as described in 10 CFR 54.21(a)(1); therefore, none of the Turbine Generator components are subject to an aging management review.

3.3.2.1.13 Fire Protection AMR

D-RAI 3.3.2.13-1

Draft Response:

Schematic representations of spray shields are identified in the Legend” section of boundary drawings containing these components. An example of a spray shield on a boundary drawing is found on D-170871L sheet 1. The schematic representation is shown under “Legend” and a spray shield is depicted in the body of the drawing at coordinate F-2. Thus, spray shields are depicted on the boundary drawings and highlighted if they are in the scope of license renewal. Spray shields are used to limit sprinkler flow to specific targets in the event of suppression system activation. These components are constructed of metal sheeting.

HARD COPY

RLEP RF

Tilda Liu

D. Chen

R. Young

E-MAIL:

PUBLIC

J. Craig

D. Matthews

F. Gillespie

C. Grimes

RidsNrrDe

E. Imbro

G. Bagchi

K. Manoly

W. Bateman

J. Calvo

R. Jenkins

P. Shemanski

J. Fair

S. Black

B. Boger

D. Thatcher

R. Pettis

G. Galletti

C. Li

M. Itzkowitz

R. Weisman

M. Mayfield

A. Murphy

S. Smith (srs3)

S. Duraiswamy

Y. L. (Renee) Li

RLEP Staff

C. Julian (R-II)

C. Patterson (R-II)

R. Fanner (R-II)

S. Peters

A. Hodgdon (OGC)

OPA

B. Jain

L. Whitney

Joseph M. Farley Nuclear Plant

cc:

Mr. Don E. Grissette
General Manager - Plant Farley
Southern Nuclear Operating Company
Post Office Box 470
Ashford, AL 36312

Mr. B. D. McKinney
Licensing Manager
Southern Nuclear Operating Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, AL 35201-1295

Mr. Stanford M. Blanton, esq.
Balch and Bingham Law Firm
Post Office Box 306
1710 Sixth Avenue North
Birmingham, AL 35201

Mr. J. B. Beasley, Jr.
Executive Vice President
Southern Nuclear Operating Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, AL 35201

Dr. D. E. Williamson
State Health Officer
Alabama Department of Public Health
The RSA Tower
201 Monroe Street, Suite 1500
Montgomery, AL 36130-1701

Chairman
Houston County Commission
Post Office Box 6406
Dothan, AL 36302

Mr. William D. Oldfield
SAER Supervisor
Southern Nuclear Operating Company
Post Office Box 470
Ashford, AL 36312

Mr. Charles R. Pierce
Manager - License Renewal
Southern Nuclear Operating Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, AL 35201

Mr. Fred Emerson
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708

Resident Inspector
U.S. Nuclear Regulatory Commission
7388 N. State Highway 95
Columbia, AL 36319

Mr. L. M. Stinson, Jr.
Vice President - Farley Project
Southern Nuclear Operating Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, AL 35201