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SOUTHERN COMPANY
Energy to Serve Your World℠

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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant
Application for License Renewal – Requests for Additional Information

Ladies and Gentlemen:

This letter is in response to two letters dated December 12, 2003, requesting additional information for the review of the Joseph M. Farley Nuclear Plant, Units 1 and 2, License Renewal Application. Responses to these Requests for Additional Information (RAI's) are provided in the enclosure.

Mr. L. M. Stinson states he is a Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

If you have any questions, please contact Charles Pierce at 205-992-7872.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

L. M. Stinson
Vice President, Farley

Sworn to and subscribed before me this 9th *day of* January, *2004.*

Glenda C. Girth
Notary Public

My commission expires: 11/10/06

LMS/JAM/slb

A099

Enclosures: 1. Response to December 12, 2003 Requests for Additional Information Joseph M. Farley Nuclear Plant, Units 1 and 2, License Renewal Application

2. Drawing D-177558, "Joseph M. Farley Nuclear Plant Unit No. 1 & 2, Total Plant Numbering System"

cc: Southern Nuclear Operating Company
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ENCLOSURE 1

Response to December 12, 2003 Requests for Additional Information
Joseph M. Farley Nuclear Plant, Units 1 and 2
License Renewal Application

RAI (2.1-1)

10 CFR 54.4(a)(2) Scoping Criteria for Nonsafety-related SSCs

By letters dated December 3, 2001, and March 15, 2002, the Nuclear Regulatory Commission (NRC) issued a staff position to the Nuclear Energy Institute which described areas to be considered and options it expects licensees to use to determine what systems, structures, or components (SSCs) meet the 10 CFR 54.4(a)(2) criterion (i.e., All nonsafety-related (NSR) SSCs whose failure could prevent satisfactory accomplishment of any safety-related (SR) functions identified in paragraphs (a)(1)(i),(ii),(iii) of this section.)

The December 3rd letter provided specific examples of operating experience which identified pipe failure events (summarized in NRC Information Notice 2001-09, "Main Feedwater System Degradation in Safety-Related ASME Code Class 2 Piping Inside the Containment of a Pressurized Water Reactor") and the approaches that the NRC considers acceptable to determine which piping systems should be included in scope based on the 54.4(a)(2) criterion.

The March 15th letter further described the staff's expectations for the evaluation of non-piping SSCs to determine which additional NSR SSCs are within scope. The position states that applicants should not consider hypothetical failures, but rather should base their evaluation on the plant's current licensing basis, engineering judgement and analyses, and relevant operating experience. The letter further describes operating experience as all documented plant-specific and industry-wide experience which can be used to determine the plausibility of a failure. Operating experience documentation sources would include NRC generic communications and event reports, plant-specific condition reports, industry reports, and engineering evaluations.

Section 2.1.3.2, "NSR Criteria Pursuant To 10 CFR 54.4(a)(2)," of the license renewal application (LRA) discusses placing non-attached low energy NSR piping in-scope if it has a spatial relationship with SR SSCs such that if the pressure boundary of the piping failed, the liquid inside could cause the SR SSC to fail. The process established by the applicant for identifying non-attached NSR piping and mechanical components involved identifying valid targets and credible threats in a given area of the plant. For the purposes of this process, the applicant defined a valid target as an electrical SR SSC that supports a final function that is in the scope of license renewal for criterion 10 CFR 54.4(a)(1).

Farley Nuclear Plant, "License Renewal Position Evaluation and Disposition," dated November 18, 2003, discusses the scoping methodology for NSR equipment that could affect SR equipment in accordance with 10 CFR 54.4(a)(2). The position states, in part, that for purposes of determining a credible threat, the NSR mechanical

component must be within 20 feet laterally or beneath, or any distance above, a SR electrical component and the threat must be liquid bearing (water or oil).
For NSR piping and components attached to SR piping, Section 2.1.3.2 states, in part, that these components be included in-scope of 10 CFR 54.4(a)(2) to the extent that these piping and components are necessary for the qualification (e.g. seismic loading) of the SR piping. Where a transition occurs from the SR in-scope piping to the NSR piping, the applicant considers the NSR components *up to* (emphasis added) the next equivalent seismic anchor (or physical restraint in the third-direction) to be in the scope of the Rule and evaluated for the effects of aging management.

Based on a review of Section 2.1.3.2 of the LRA, the applicant's scoping and screening implementation procedures and discussions with the applicant, the staff determined that additional information is required with respect to certain aspects of the applicant's evaluation of the 10 CFR 54.4(a)(2) criteria. Therefore, the staff requests that the applicant address the following:

A. Describe the basis and/or justification for use of the 20 foot spatial interaction screening criteria.

Response:

The SNC scoping process for 10 CFR 54(a)(2) included a 20 foot spatial interaction screening criterion for the distance between non-attached low energy NSR liquid-filled piping and components that could suffer an age-related failure and spray on vulnerable SR SSCs. The interaction zone is a silo, defined by projecting upward from the postulated break location a hemisphere 20 feet in radius and projecting downward to the floor a cylinder with a radius of 20 feet. Given that SNC assumed that a failure point could occur anywhere on the surface of the NSR SSC, the interaction zone would move with the failure point and the integration of these interaction zones for a NSR SSC could be much larger.

At the time the application was prepared, neither the NRC nor the industry had definitively established any interaction distance; however, the majority of applicants had considered 20 feet to be an acceptable distance for spray effects from low energy pipe, and SNC agreed with that distance. It is important to note that other applicants have used larger distances in the case of high energy pipe, but SNC has put the high energy piping defined in the FNP CLB (FSAR Appendix 3K) in the scope of 10 CFR 54.4(a)(1).

The configuration of the rooms (e.g., piping and equipment layouts and room size) at FNP is such that in most cases the interaction zone using the 20 foot spatial interaction screening criteria encompassed the entire confines of the room. A potentially vulnerable SR SSC in the room was therefore considered to be within the postulated interaction distance and evaluated to determine its vulnerability to the effects of an age-related failure in the low energy NSR liquid-filled piping and/or components. In many cases, there were too many SR SSCs in a given room (e.g. the compartment for a Motor Driven Auxiliary Feedwater Pump) to merit a review of the individual SR SSCs. In these cases, the NSR SSC was brought into scope for evaluation of aging effects requiring management.

The notable exceptions to the small size rooms at FNP that contain vulnerable SR SSCs are the heat exchanger rooms, the corridors, the mechanical penetration rooms, and the lower equipment room within the Auxiliary Building. SNC conducted detailed walkdowns and evaluations of these rooms. SNC's review of the results for these rooms indicates that the use of a 20 foot spatial interaction screening criteria versus a larger criteria, such as 30 feet, had little effect on the 10 CFR 54.4(a)(2) scoping results. Additional discussion follows.

It is important to note that, in the case of the lower equipment rooms, the screening criteria excluded the chemical addition mixing tanks and certain Auxiliary Steam and Condensate Recovery (AS&CR) System piping at distances of 30 feet or more from vulnerable SR SSCs. The tanks excluded are atmospheric tanks and low pressure AS&CR lines. A breach was assessed to lack the energy to travel more than 20 feet.

In corridors, a review of the scoping results indicated that wherever an interaction distance of more than 20 feet was noted, the piping involved was included in scope for an interaction with at least one SR SSC that was closer than 20 feet.

From the review of the FNP scoping process, SNC concludes the 20 foot interaction distance parameter, with the integration of all NSR interaction envelopes, had little effect upon the results of the scoping process. The scoping process for spatial interactions developed a sufficient set of components to assure that, through aging management, NSR components will not fail to support a function in the scope of 10 CFR 54.4(a)(1), adversely impact the performance of such a SR function, or adversely impact the function of a SR SSC.

B. Consistent with the staff position described in the March 15th letter, please describe the scoping methodology implemented for the evaluation of the 54.4(a)(2) criteria as it relates to the non-fluid-filled (normally empty or gas bearing) SSCs of interest. As part of your response please indicate the non-fluid-filled SSCs evaluated and describe the site and industry operating experience relied on to determine the potential for failures of such non-fluid-filled SSCs which could impact safety-related SSCs within scope.

Response:

For FNP, SNC has determined that NSR piping and ductwork components that do not contain water, steam, or oils (i.e., normally empty or gas bearing) do not have an age-related failure mode that can adversely affect a SR SSC. The systems containing NSR components that SNC eliminated from the scoping process through the application of this philosophy include compressed air, instrument air, compressed gases, ventilation systems, and drain and vent lines that are normally empty.

SNC has come to this conclusion considering the operating environments for these SSCs, a review of the CLB, and a review of plant and industry operating experience for any failures that have been previously experienced. First, the interior and exterior environments for these NSR SSCs are non-aggressive. Stress corrosion cracking in this piping is a hypothetical failure mode since the precursor requirements for these aging effects (aggressive chemical species in a liquid solution) do not exist. Also, thermal fatigue cracking is managed as a TLAA as discussed in Section 4.3 of the LRA.

SNC's operating experience (OE) review included a review of both industry and plant-specific operating experience reference sources. The OE review included industry documents, generic communications from the NRC such as Information Notices, Generic Letters, and Bulletins, and FNP's condition report (CR) database. The operating experience review did not identify any normally empty or gas bearing vent line, compressed gas line, or air line failures leading to failures of SR SSCs. SNC also reviewed the FNP operating experience specifically searching for cases where an age-related failure of a drain line caused an adverse effect upon a SR SSC. This review of operating experience did not identify any such cases.

In conclusion, SNC determined that for NSR piping and ductwork components that do not contain water, steam, or oils (i.e., normally empty or gas bearing), aging-related failure leading to a failure of SR SSCs during the period of extended operation was hypothetical and is not part of the CLB. Therefore, it did not need to be considered consistent with the NRC staff guidance on hypothetical failures (refer to NUREG-0800 Table 2.1-2).

C. Describe the basis and/or justification for limiting the valid target to only an electrical SR SSC.

Response:

Defining a valid target as an electrical SR SSC applies to the evaluation of non-attached low energy NSR components that have a spatial relationship with a SR SSC such that if the pressure boundary of the component failed, the liquid could spray or drip on a SR SSC. In limiting the definition of a vulnerable target to a safety related electrical component, SNC has applied the various aspects of scoping for 10 CFR 54.4(a)(2) in a process of elimination. High energy lines are scoped first, attached piping second, and then spatial interaction lines are scoped.

SNC has included in scope the high energy lines and associated mitigative features (e.g., whip restraints, impingement shields, etc.) consistent with the FNP CLB (FNP UFSAR Appendix 3K and Section 3.6). By doing this, SNC has addressed the effects of failures in high energy lines (e.g., pipe whip and pipe jet forces) that could damage SR SSCs.

In consideration of attached piping concerns, SNC has included in scope NSR piping that is attached to SR SSCs and part of the seismic stress analysis boundary (the attached piping function). See responses to RAI 2.1-1(d) & (e) for further discussion.

For NSR SSCs that are not attached to SR SSCs, SNC has addressed the potential for the NSR SSCs falling on SR components by including all supports (SR and NSR) in Seismic Category 1 buildings in scope. Therefore, the FNP scoping process addressed the spatial interaction of an NSR component falling upon an SR component.

This process leaves the only other aspect of spatial interaction – that of dripping and spray – to be addressed. SNC did not identifify any plausible failure of a mechanical or structural SR SSC that could occur from spraying or dripping of water or oil from a NSR SSC. SNC reviewed industry and FNP-specific operating experience and did not identify failures of mechanical or structural components due to dripping or spray. However, spraying or dripping fluids can adversely affect some SR electrical components. Therefore, SNC defines a vulnerable target as an electrical SR component whose performance could be adversely affected by spraying or dripping.

D. In discussions with the applicant during the audit, the team was informed that where NSR plant equipment was credited with providing anchorage for NSR piping that was attached to SR piping, the applicant considered the anchor itself within the scope of license renewal, which is contrary to the statement in Section 2.1.3.2 of the LRA. Please provide a written Response which clarifies the position of including the anchor in the scope of license renewal.

Response:

The portion of the LRA in question states:

"SNC considers the NSR piping and components attached to SR piping to be in the scope of 10 CFR 54.4(a)(2) to the extent that the NSR piping and components are necessary for the qualification (e.g. seismic loading) of the SR piping. Where a transition occurs from the SR in-scope piping to the NSR piping, SNC considers the NSR components up to the next equivalent seismic anchor (or physical restraint in the third-direction) to be in the scope of the Rule, and SNC evaluated the components for aging effects requiring management."

For attached piping, the intent of the LRA statement is to include in scope the piping supports and the equivalent anchor for the in-scope piping. The SNC process included any in-line component (e.g., a pump casing or a tank) within the in-scope boundary up to and including the next equivalent seismic anchor.

E. Describe the basis and/or justification for the policy regarding, "the next equivalent seismic anchor, or physical restraint in the third direction."

Response:

SNC has chosen to evaluate NSR piping, valves, and fittings attached to SR components up to (and including) the restraint in the third cardinal direction (the equivalent anchor). SNC chose this evaluation scope because evaluation of those NSR components provides SNC a reasonable assurance that integrity of the attached SR components would be maintained in a seismic event. SNC has chosen to employ the same aging management programs for the NSR components as are used for the attached SR components, to the extent applicable and practicable. The differences in aging management programs are limited to those cases where different chemistry controls apply to the NSR components and to those cases where a One-Time Inspection is (or is not) applicable to the NSR component material.

As an additional assurance that the SR functions will be preserved during a seismic event, SNC has placed in the scope of LR the piping supports and anchors within the Seismic Category 1 buildings, regardless of safety classification. In this way, SNC assures that these supports will be age managed to prevent age related failures of the supports. Industry experience indicates that piping does not fall during a seismic event unless multiple pipe supports fail in a zipper-fashion. The aging management SNC has chosen for supports also prevents this kind of multiple support failure.

Therefore given these two considerations, the evaluation method used for FNP will assure performance of required SR functions during a seismic event.

F. Based on the audit team's review of associated plant and instrumentation drawings, scoping and screening reports, and discussions with the applicant LRA staff regarding the service water system, the audit team identified a portion of the NSR piping (3" HCC-321 attached to valve QV-791B) in the service water system which met the initial scoping criteria for attached NSR piping described in the LRA position paper "License Renewal Position Evaluation and Disposition," dated November 18, 2003, but had not been included within the scope of license renewal. Describe the basis for not including that portion of the NSR piping within scope, and, to the extent that a process implementation error had been made, perform an extent of condition review to ensure no other SSCs were omitted from scope as a result of this condition.

Response:

The highlighted portion of attached piping discussed in this RAI should not have been highlighted on the drawings provided for information to the NRC during the audit. This highlighted piping, though attached to SR in-scope piping and included in the seismic analysis for the SR components, is normally empty and was drained when the NSR piping was retired in place. As such the piping has no aging effect, except hypothetical aging effects, that could lead to its failure. Per the SNC scoping methodology for 10 CFR 54.4(a)(2), this component should not have been highlighted or evaluated further for aging effects requiring management.

SNC did a thorough review of the OCCW system boundary drawings to assure that the remaining attached piping scope was properly captured. The review evaluated each of the locations within the OCCW boundary where NSR piping is attached to SR components, to further assure that the scope is correctly reflected in the scoping and AMR sections of the application. At this time, SNC is assured that the scope is otherwise correctly reflected in the LRA.

RAI (2.1-2)

Quality Assurance Program Attributes in Appendix A, "Updated Safety Analysis Report (USAR) Supplement," and Appendix B, "Aging Management Activities"

The NRC staff reviewed the applicant's aging management programs described in Appendix A, "Final Safety Analysis Report (USAR) Supplement," and Appendix B, "Aging Management Activities," of the Joseph M. Farley license renewal application. The purpose of this review was to assure that the aging management activities were consistent with the staff's guidance described in NUREG-1800, Section A.2, "Quality Assurance for Aging Management Programs (Branch Technical Position IQMB-1)," regarding quality assurance attributes of aging management programs.

Based on the staff's evaluation, the quality attributes (corrective action, confirmation process, and administrative controls) described in Appendix B, Section B1.3, "Quality Assurance Program and Administrative Controls," of the LRA for all programs credited for managing aging effects were consistent with Branch Technical Position IQMB-1. However, the applicant has not sufficiently described the AMP quality attributes in Appendix A, "Final Safety Analysis Report Supplement." The staff requests that the applicant supplement the information provided in the Appendix A to include a description of the quality assurance program attributes, including references to pertinent implementing guidance as necessary, which are credited for the programs to manage aging effects described in Appendix A and Appendix B of the LRA. The description in Appendix A should provide sufficient information for the staff to determine if the quality attributes for the programs credited with managing aging effects are consistent with the review acceptance criteria contained in NUREG-1800, Section A.2, "Quality Assurance for Aging Management Programs (Branch Technical Position IQMB-1)."

Response:

The FSAR section (Appendix A) will be updated to include the following information regarding the applicability of the FNP Quality Assurance Program to aging management programs credited to manage the aging effects for in-scope systems, structures and components:

The FNP Operations Quality Assurance Program will apply the quality assurance criteria of 10 CFR 50, Appendix B to the elements of corrective actions, confirmation process, and administrative controls for the aging management program activities and implementing documents during the period of extended operation.

RAI (2.2-1)

In a comparison of the Farley Nuclear Plant (FNP) units, the staff's review finds that the FNP license renewal application (LRA) does not identify the design differences in the systems and components for FNP Unit 1 compared to Unit 2. The FNP UFSAR Section 1.1.2 states that, "the two units are essentially the same, and the descriptions of one unit are interpreted as applying to both units. Differences between the two units, and particularly structures, systems, and components which are shared between the two units, are specifically pointed out." Updated Final Safety Analysis Report (UFSAR) Section 1.2.2 lists the systems, spaces and equipment shared by the two units. A preliminary comparison of the Units 1 and 2 license renewal boundary drawings for certain systems indicates that corresponding components considered within scope of license renewal for one unit are considered out of scope for the other unit. As an example, consider the primary temperature elements 2293I and 2293J at location E6 on both boundary drawings D-175007L (Unit 1) and D-205007L (Unit 2). These elements are considered within scope on boundary drawing D-175007L for Unit 1, but out of scope on boundary drawing D-205007L for Unit 2.

Describe the design differences between the systems and components, together with the associated current licensing bases for Units 1 and 2. Explain how these differences have been addressed in the scoping and screening review process for the corresponding systems of the two units.

Response:

With regard to the example cited, there is no difference between the two units. The Loop 2293 Temperature Elements (TEs) are strap-on devices for both units and do not penetrate the pressure boundary of the Auxiliary Feedwater (AFW) system piping. The TEs are electrical components (not mechanical components) and therefore the scoping review is performed as part of the plant-wide electrical evaluation described in Section 2.5.1. As such, TE-2293A through TE-2293L should not have been highlighted on the Unit 1 mechanical boundary drawing D-175007L.

In regard to how design differences between Unit 1 and 2 systems and components and the associated current licensing bases have been addressed in the scoping and review process, the methodology SNC used is described in detail in Section 2.1 of the LRA. A primary source of information used in scoping was the FNP UFSAR. As stated in FNP UFSAR Section 1.1.2, the two units are essentially the same, and germane differences between the two units are pointed out. References to the appropriate UFSAR section(s) for each LRA system are included in the FNP LRA scoping and screening results. Major structures, systems and components (SSCs) shared by the two units are also identified in the UFSAR. FNP UFSAR Section 1.2.2 provides a summary listing of the spaces and equipment shared by the two units. Other primary sources of information were the plant drawings and Functional System Description documents, appropriate licensing correspondence and supporting documentation.

The design differences between the two units in the SSCs that perform in-scope functions (10 CFR 54.4(a) criteria) are revealed via the boundary drawings and the text in Section 2 of the LRA. There was no effort to develop a composite listing of

system and component scoping differences. The two units are essentially the same; however, minor differences do occur. For example, there exist differences in physical routings and layout (e.g., locations of vents, drains, isolation valves, code breaks, etc.), use of shared equipment, manufacturer and/or model used for a specific piece of equipment, etc. In determining SSCs that are in-scope for 10 CFR 54.4(a)(2) criterion, the physical routing and piping configurations are of primary concern (e.g., location of supports, proximity to safety related SSCs) and were determined from a review of physical drawings and plant walkdowns.

Differences between the two units, to the extent that different system-level functions apply to one unit and not the other, are defined in the function scoping process. System functional differences between the units (excluding "shared" or "common" facilities that may have a Unit 1 only designator) that were identified during the function scoping process are listed below.

- The Vacuum Degasification System is installed in Unit 1 only. There is no such system on Unit 2. This system can be used for degasifying (controlling dissolved oxygen levels) the Unit 1 Reactor Makeup Water Storage Tank (see FSAR section 9.2.7.2.1). The Vacuum Degasification System does not support any intended function as defined in 10 CFR 54.4.
- The Hydrogen and Nitrogen System original design included a supply of nitrogen to the containment electrical penetrations on Unit 2 only. However, that supply is capped and not used.
- The NSR part of the Unit 2 Service Water (SW) System provides a backup water supply to the fire water storage tanks. The redundant 300,000 gal/each fire water storage tanks contain sufficient capacity such that the backup supply is not relied upon to meet any design basis event and therefore does not support any intended function as defined in 10 CFR 54.4.
- The Radioactive Waste Vent. & Filtration Systems are essentially the same on each unit, with the exception that Unit 2 has a Waste Gas Area Filtration Unit and Unit 1 does not. The filtration unit does not support any intended function as defined in 10 CFR 54.4.

In addition to these system-level functional differences, a cursory review of the license renewal boundary drawings identified the following additional unit differences worth noting:

- The Solid Waste Disposal System for Unit 1 includes spent resin drumming equipment that does not support any intended function as defined in 10 CFR 54.4. This equipment is not installed in Unit 2. Refer to FSAR Section 11.5.1 for additional discussion.
- The SW System for Unit 2 includes booster pumps in the lube and cooling water subsystem. The Unit 1 and 2 SW pumps were supplied by different manufacturers. The booster pumps are only required to support operation of the Unit 2 pumps and therefore perform an intended function as defined in 10 CFR 54.4.

SNC will address any other scoping and screening component-level differences, including physical routing and layout differences, and any other differences of concern to the staff, on a case-by-case basis, as requested by the Staff.

RAI (2.2-2)

According to the legend of license renewal boundary drawing D-506450L, Sheet 1, components within the scope of license renewal are shown in red highlight. It is also apparent from a comparison of component types subject to an aging management review (AMR), listed in Section 2 tables of the LRA, to those highlighted in the boundary drawings, that many of the components shown in red highlight (i.e., pressure instrumentation) are not subject to an AMR; that is, these components were screened out. The FNP LRA does not provide another means of identifying the specific components, which comprise the component types (or groups) subject to an AMR. Such identifications provide the end results of the scoping and screening review process. This information is needed for the staff to determine whether the specific components (which comprise the component types) have been properly identified as being subject to an AMR. This is in accordance with the requirements of 10 CFR 54.21(a)(1).

Provide documentation (either via tables or additional drawings) that would allow the staff to identify the specific components (comprise of component types) that are within the scope of license renewal and subject to an AMR. If tables are used, they should identify the specific components which comprise the component types for each system by component name, identification number, and drawing(s) where they are located.

Response:

Section 2.1.4 of the FNP LRA states that component types used in the FNP integrated plant assessment (IPA) include the use of commodity groups where appropriate, and that the commodity groups utilized are similar to those presented in NEI 95-10 Rev. 3 and Table 2.1-5 of NUREG-1800 (Standard Review Plan for Review of License Renewal Applications), and utilized by previous applicants. In many cases, NEI 95-10 includes with the commodity group examples of the types of specific items included under the commodity type.

10 CFR 54.21(a)(1) requires the license renewal application to identify only those structures and components subject to an aging management review for those SSCs within the scope of the Rule. In addition, NUREG-1800 (e.g., Tables 2.1-2 and 2.1-5) and Regulatory Guide 1.188 via endorsement of NEI 95-10 Rev. 3 accept the use of commodity groups for presenting this information. There is no requirement, nor is it necessary in the scoping and screening process, to list the specific components (i.e., each individual equipment number) that comprise the component types for each system. The component types for a given system or structure subject to an aging management review are presented in tabular form in the LRA scoping section for each system.

In regards to the staff's request to provide documentation that would identify for each system, the specific components using individual equipment numbers that comprise each component type requiring aging management review, the SNC IPA process did not develop results in this format; therefore, the information is not available. However, supplemental information on the component types used in the IPA and the determination of whether or not the component types were subject to an aging

management review is available and may be useful to the staff in performing the scoping and screening review.

The following tables provide this additional information. Component types used in the Farley IPA are listed with examples of the types of items included under the commodity type as appropriate, and the determination of whether or not in-scope SSCs of that component type require an aging management review and the active/passive and long/short-lived determinations.

Mechanical Component Types (Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Reactor Coolant System				
Closure Bolting, Class 1	Includes fasteners for class 1 component applications excluding fasteners used for the RPV, SGs, and Pressurizers. Includes valve bonnet fasteners, RCP fasteners, flange connection fasteners.	Yes	Yes	Yes
Piping - Class 1 Piping Components	ASME Class 1 Piping including pipe fittings, thermowells and welded attachments.	Yes	Yes	Yes
Piping - Class 1 Piping Components > or equal to NPS 4		Yes	Yes	Yes
Piping - Class 1 Piping Components < NPS 4		Yes	Yes	Yes
PZR - Closure Bolting (Manway)		Yes	Yes	Yes
PZR - Heater Sheaths		Yes	Yes	Yes
PZR - Instrument Nozzles and Heater Well Nozzles		Yes	Yes	Yes
PZR - Manway and Cover		Yes	Yes	Yes
PZR - Nozzle Safe Ends		Yes	Yes	Yes
PZR - Nozzles (Surge, Spray, Safety, Relief)		Yes	Yes	Yes
PZR - Shell, Upper Head, and Lower Head		Yes	Yes	Yes
PZR - Spray Head Assembly	The PZR cast spray head is included within the scope of LR since aux spray is credited as the sole pressure control mode by Appendix R analyses for a safe shutdown pathway.	Yes	Yes	Yes
PZR - Support Lugs		Yes	Yes	Yes
PZR - Support Skirt and Flange		Yes	Yes	Yes
PZR - Thermal Sleeves (Surge and Spray Nozzles)		Yes	Yes	Yes
RCP - Main Closure Flange		Yes	Yes	Yes
RCP - Main Flange Bolts		Yes	Yes	Yes
RCP - Pump Casing		Yes	Yes	Yes
RCP - Thermal Barrier Assembly		Yes	Yes	Yes
Valves (Bodies Only) – Class 1	Valve components other than the valve body are active.	Yes	Yes	Yes
Reactor Pressure Vessel				
RPV - Bottom Head Torus and Dome		Yes	Yes	Yes
RPV - Bottom Mounted Instrumentation Guide Tubes		Yes	Yes	Yes

Mechanical Component Types (Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
RPV - Bottom Mounted Instrumentation Penetrations (Tubes) and Safe Ends		Yes	Yes	Yes
RPV - CET Conoseal Assembly		Yes	Yes	Yes
RPV - CET Conoseal Assembly & HJTC Flange Assembly Bolting		Yes	Yes	Yes
RPV - Closure Head Dome and Flange		Yes	Yes	Yes
RPV - Closure Head Lifting Lugs and Vent Shroud Support Lugs		Yes	Yes	Yes
RPV - Closure Studs, Nuts, and Washers		Yes	Yes	Yes
RPV - Control Rod Drive		No	Yes	No
RPV - Core Support Lugs		Yes	Yes	Yes
RPV - CRDM Housing & Instrumentation Penetration Nozzles		Yes	Yes	Yes
RPV - CRDM Housing Flange Adapters		Yes	Yes	Yes
RPV - CRDM Latch Housings and Rod Travel Housings		Yes	Yes	Yes
RPV - Head Vent Penetration		Yes	Yes	Yes
RPV - HJTC (RVLIS) Flange Assembly		Yes	Yes	Yes
RPV - Leakage Monitoring Tube Assembly		Yes	Yes	Yes
RPV - Primary Inlet and Outlet Nozzles (and nozzle support pads)		Yes	Yes	Yes
RPV - Primary Nozzle Safe Ends		Yes	Yes	Yes
RPV - Refueling Seal Ledge		Yes	Yes	Yes
RPV - Seal Table and Fittings		Yes	Yes	Yes
RPV - Shells - Intermediate Shell Course		Yes	Yes	Yes
RPV - Shells - Lower Shell Course		Yes	Yes	Yes
RPV - Shells - Upper (Nozzle) Shell Course		Yes	Yes	Yes
RPV - Thermal Sleeves and Guide Funnels (CRDMs and HJTC Probes)	No documentation on how these sleeves may support any intended function. This component is long lived / passive. Conservatively requires an AMR since failure of this sleeve assembly could potentially prevent insertion of an RCCA (although this result is unlikely).	Yes	Yes	Yes

Mechanical Component Types (Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
RPV - Ventilation Shroud Support Ring		Yes	Yes	Yes
RPV - Vessel Flange		Yes	Yes	Yes
RPV - Vessel O-Rings	WCAP 14581 indicates that RPV o-rings are replaced during each refueling outage. As such, they are short lived.	Yes	No	No
Reactor Vessel Internals				
RVI - Baffle and Former Plates		Yes	Yes	Yes
RVI - Baffle Bolts	Includes baffle to former and barrel to former bolts Does not include Edge Bolts (Baffle) – these are addressed as a separate component type.	Yes	Yes	Yes
RVI - BMI Column Cruciforms		Yes	Yes	Yes
RVI - BMI Columns		Yes	Yes	Yes
RVI - Clevis Inserts and Fasteners		Yes	Yes	Yes
RVI - Control Rod Guide Tube Assemblies		Yes	Yes	Yes
RVI - Core Barrel and Core Barrel Flange		Yes	Yes	Yes
RVI - Core Barrel Outlet Nozzles		Yes	Yes	Yes
RVI - CRGT Support Pins and Bolting		Yes	Yes	Yes
RVI - Drive Rods	Drive rods and RCCA control rods are required to move to perform their intended function, similar to a valve stem and disc. As such, these components are considered active and do not require an aging management review.	No	Yes	No
RVI - Flux Thimble Tubes		Yes	Yes	Yes
RVI - Fuel Assemblies		Yes	No	No
RVI - Head / RPV Alignment Pins		Yes	Yes	Yes
RVI - Head Cooling Spray Nozzles		Yes	Yes	Yes
RVI - HJTC Probe Holder and Probe Holder Extension Assembly		Yes	Yes	Yes
RVI - HJTC Probe Holder Shroud Assembly		Yes	Yes	Yes
RVI - HJTC Probes		No	Yes	No
RVI - Internals Holdown Spring	This conclusion is consistent with the conclusion reached in the NRC SER for WCAP 14577 Rev 1.	Yes	Yes	Yes
RVI - Lower Core Plate and Fuel Alignment Pins		Yes	Yes	Yes
RVI - Lower Support Columns		Yes	Yes	Yes
RVI - Lower Support Forging		Yes	Yes	Yes
RVI - Neutron Panels		Yes	Yes	Yes

Mechanical Component Types (Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
RVI - Radial Support Keys and Fasteners		Yes	Yes	Yes
RVI - RCCA Control Rods	Drive rods and RCCA control rods are required to move to perform their intended function, similar to a valve stem and disc. As such, these components are considered active and do not require an aging management review.	No	No	No
RVI - Secondary Core Support Assembly		Yes	Yes	Yes
RVI - Upper Core Plate Alignment Pins		Yes	Yes	Yes
RVI - Upper Core Plate and Fuel Align. Pins		Yes	Yes	Yes
RVI - Upper Instrumentation Conduit and Supports		Yes	Yes	Yes
RVI - Upper Support Assembly		Yes	Yes	Yes
RVI - Upper Support Column Bases		Yes	Yes	Yes
RVI - Upper Support Columns		Yes	Yes	Yes
Steam Generators				
SG - Channel Divider Plate		Yes	Yes	Yes
SG - Channel Head (with Integral Primary Inlet and Outlet Nozzles and Manways)		Yes	Yes	Yes
SG - Closure Bolting (Primary)		Yes	Yes	Yes
SG - Closure Bolting (Secondary)		Yes	Yes	Yes
SG - Feedwater Distribution Assembly Piping and Fittings		Yes	Yes	Yes
SG - Feedwater Inlet Nozzle		Yes	Yes	Yes
SG - Feedwater Nozzle Thermal Sleeve		Yes	Yes	Yes
SG - Feedwater Spray Nozzles (Spargers)		Yes	Yes	Yes
SG - Primary Inlet and Outlet Nozzle Safe Ends SG - Primary Inlet and Outlet Nozzles		Yes	Yes	Yes
SG - Primary Manway Covers and Disc Inserts		Yes	Yes	Yes
SG - Primary Moisture Separator and Sludge Collector Assy.		Yes	Yes	Yes
SG - Primary Nozzle Dam Rings		Yes	Yes	Yes

Mechanical Component Types (Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
SG - Secondary Moisture Separator Assy.		Yes	Yes	Yes
SG - Secondary Side Manways, Handholes, Inspection Ports, and Covers		Yes	Yes	Yes
SG - Stayrod Assemblies		Yes	Yes	Yes
SG - Steam Generator Secondary Shell Penetrations		Yes	Yes	Yes
SG - Steam Outlet Flow Limiter		Yes	Yes	Yes
SG - Tube Bundle Wrapper and Support Assy.	The steam generator tube bundle wrapper and support assembly is passive and long lived. The in-scope function of this assembly is to provide structural support to the tube bundle assembly. While the wrapper also provides flow distribution within the SG, this function is not within the scope of license renewal.	Yes	Yes	Yes
SG - Tube Support Plates, Flow Distribution Baffles, and Anti-vibration Bars		Yes	Yes	Yes
SG - Tubesheet		Yes	Yes	Yes
SG - U Tubes		Yes	Yes	Yes
SG - Upper Head (with Integral Steam Outlet Nozzle)		Yes	Yes	Yes
SG - Upper Shells, Lower Shells, and Transition Cones		Yes	Yes	Yes

Mechanical Component Types (Non-Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Air Accumulators	Air accumulators of the compressed air system, EDG air start system.	Yes	Yes	Yes
Air Compressor		No	Yes	No
Air Compressor Cooler	Air compressor intercooler, aftercooler, bleed-off cooler, and lube oil cooler.	Yes	Yes	Yes
Air Dryer	Air dryer of the compressed air system. Only the shell of the air dryer is considered passive and long-lived.	Yes	Yes	Yes
Air Receiver	Air receivers of the compressed air system.	Yes	Yes	Yes
Blower (Gland Seal)		No	Yes	No
Capillary Tubing (sealed)	Capillary tubing, e.g., CTMT pressure transmitters sensing lines.	Yes	Yes	Yes
Charging (SI) Pump Mini-Flow Orifices	Charging pumps mini-flow orifices	Yes	Yes	Yes

Mechanical Component Types (Non-Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Closure Bolting, Non-Class 1	Flange bolting, valve bonnet bolting, pump casing bolting, manway bolting, etc..	Yes	Yes	Yes
Component Filters	Includes filter elements of component filters, oil and grease.	Yes	No	No
Compressed Gas Cylinders	Examples includes N2 cylinders of the compressed air system for valves such as the PORVs, or for the Service Water wet pit level instrumentation. These components are short lived, being subject to replacement based on a qualified life, specified time period, or on condition, per plant procedures. Therefore, these components are not subject to aging management.	Yes	No	No
Containment Cooler (Channel Head, Tubes)	Containment Cooler	Yes	Yes	Yes
Containment Spray Nozzles	Containment spray nozzles	Yes	Yes	Yes
Cooling Coils (HVAC Refrigerant Coils)	Refrigerant coils in Control Room Air Conditioning HVAC units.	Yes	Yes	Yes
Demineralizer		Yes	Yes	Yes
Duct and Fittings	Ducts and Fittings used for HVAC applications.	Yes	Yes	Yes
Eductor	Containment spray eductors.	Yes	Yes	Yes
Electric Heater (Casing)	Heater Elements are active. (See Elect/ I&C Comp Type Electric Heaters). Jacket Water and Lube Oil Heater Casings	Yes	Yes	Yes
Emergency Diesel Generators	Onsite emergency diesel generators (DGs) including SBO DG. Represents active engine elements and generator. DGs are evaluated as complex active assemblies.	No	Yes	No
Encapsulation Vessel	Encapsulation vessels for ECCS and containment spray suction line isolation valves from containment sump to pumps.	Yes	Yes	Yes
Equipment Frames and Housings	HVAC component frames, such as, damper frames, fan casings, filter and air handling housings.	Yes	Yes	Yes
ESF Room Coolers	ESF Room Coolers	Yes	Yes	Yes
Fan-Coil (Fins)	Containment Cooler and Control Room Cooler	Yes	Yes	Yes
Filters (casing)	Instrument Air Filters	Yes	Yes	Yes
Fire Dampers (Frames and Housings Only)	Fire damper frames in various HVAC systems. (Damper blades and actuators are active.)	Yes	Yes	Yes
Fire extinguishers, CO2, Halon & SCBA Hi-Pressure Cylinders	Fire extinguishers, CO2 bottles, Halon bottles, and self-contained breathing apparatus (SCBA) cylinders	Yes	No	No
Fire hoses, fire brigade implements (helmets, gloves, etc.)	Fire hoses, fire brigade implements (helmets, gloves, etc.)	Yes	No	No
Fire Hydrants	Fire protection water suppression system fire hydrants	Yes	Yes	Yes
Fire Pump Diesel Engines		No	Yes	No
Flexible Connectors	Stainless steel flexible hose, elastomer flexible connectors for HVAC applications.	Yes	Yes	Yes
Floor Drain Plug	Floor drains in the Electrical Penetration Rooms are sealed with Thaxton drain plugs, or equivalent.	Yes	Yes	Yes

Mechanical Component Types (Non-Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Flow Orifice/Element	Restricting orifice, flow orifice, mini-flow orifices, flow elements, pitot tube.	Yes	Yes	Yes
Fusible Links & Sprinkler Head Bulbs	Fire protection sprinkler head fusible links and bulbs. Fusible links are a soft metal such as a lead alloy that melts at a relatively low temperature. Sprinkler head bulbs are made of glass with a highly expansive fluid sealed inside which breaks the bulb on an elevated temperature (ref NEI 95-10, App B, item 43).	Yes	Yes	Yes
Gaskets	Includes gaskets, packing, component seals, and o-rings.	Yes	No	No
Guard Pipe	Guard pipe on diesel fuel oil vent line.	Yes	Yes	Yes
Heat Exchanger (channel head, shell, tubes, tubesheet)	e.g., RHR HXs, CCW HXs, CVCS HXs (BTRS Chiller HX, Letdown HX, Excess Letdown HX, Moderating HX, Regenerative HX, Reheat HX, Seal Water HX), SFP HXs.	Yes	Yes	Yes
Hose Station Nozzles and Hose Connections	Nozzles and hose connections attached to fire protection hose station hoses	Yes	Yes	Yes
Hydrogen Recombiner Skid	Pressure boundary components only - Heaters are active	Yes	Yes	Yes
Insulation - Thermal		Yes	Yes	Yes
Letdown Orifices		Yes	Yes	Yes
Moisture Separator	Moisture separator for post accident containment combustion gas control hydrogen analyzers, Q1/2E23AIT2703A&B.	Yes	Yes	Yes
Oil Cooler (tubes, tube sheet, channel head, shell)	AFW Pump Turbine Oil Cooler	Yes	Yes	Yes
Operator - Air		No	Yes	No
Operator - Hydraulic		No	Yes	No
Piping - Non-Class 1 Piping Components	Pipe, tubing, expansion joints, misc. appurtenances, thermowells, welded attachments, etc.	Yes	Yes	Yes
Piping With Guard Pipe	Guard pipe and internal pipe being guarded. Guarded service water in diesel generator building. Also see "Guard Pipe."	Yes	Yes	Yes
Pitot Tube	Pitot Tubes in HVAC ducts that provide for flow indication.	Yes	Yes	Yes
Pumps (Casings Only)	Pump rotating elements are active. Examples include ECCS Pump Casings, Service Water and Fire Pump Casings, Lube Oil and Closed Cooling Water Pump Casings, Condensate Pump Casings, Borated Water Pump Casings, Submersible Pump Casings.	Yes	Yes	Yes
Refrigeration Condensing Unit	Control Room Condensing Units (QSV49K0002A-A & B-B and QSV49K0003A-A & B-B).	No	Yes	No
Sight Glasses	Fire protection water suppression system sight glasses. The metallic body is treated like a valve body but the glass portion, which forms part of the pressure boundary, is covered in this component type.	Yes	Yes	Yes
Spray Shield	Fire protection sprinkler spray shield or spray re-director	Yes	Yes	Yes
Sprinkler Heads	Fire protection sprinkler heads	Yes	Yes	Yes

Mechanical Component Types (Non-Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Steam/Fluid Traps (pressure boundary only)		Yes	Yes	Yes
Strainer (Shell, Element)	Service Water Strainers, Diesel Generators Lube Oil Strainers, Spent Fuel Pool Strainers	Yes	Yes	Yes
Strainer (Rotating Element)	Large service water strainer internal drum and screen. The drum and screen are attached to each other and are rotated by an electric motor. The drum, made of cast iron, provides structural support for the screen. The screen is made of stainless steel. This component's classification as active is similar to the internals of a valve being classified as active.	No	Yes	No
Switches, Indicators, Transmitters, Sensors	For screening of mechanical systems (including Class 1), this composite component type is used to represent active electro-mechanical instruments – see Electrical/I&C component types such as analyzers; elements, RTDs, Sensors, Thermocouples, Transducers; Indicators; Radiation Monitors; Sensors, Switches, and Transmitters. This component type includes NEI component types 84 (Sensors), 90 (Indicators), 102 (Switches), and 105 (Transmitters). Examples are: temperature elements, conductivity elements, radiation sensors, thermocouples/RTDs, differential pressure indicators, pressure indicators, flow indicators, level indicators, differential pressure indicating switches, pressure indication switches, level switches, pressure transmitters, and level transmitters.	No	Yes	No
System Filters (elements)	Examples includes the Penetration Room Filtration elements (HEPA filters), CTMT Purge Filter elements, Control Room Filtration Unit elements, and the Post Accident CTMT Ventilation Filtration Unit elements.	Yes	No	No
Tank Protective Fiberglass Cover	CO2 storage tank protective cover	Yes	Yes	Yes
Tanks	Examples include Reactor Water Storage Tanks, Reactor Make-Up Water Storage Tanks, Volume Control Tanks, Condensate Storage Tanks, Fuel Oil storage tanks.	Yes	Yes	Yes
Turbine Trip Actuation Devices & Steam Turbine Isolation Valves	This includes the valves, piping, and associated components for the following turbine trips: ATWS/AMSAC, overspeed (electrical and mechanical), and reactor trip system.	No	Yes	No
Turbines - Controls (Actuator and Overspeed Trip)		No	Yes	No
Turbines - Turbine Pump Drive Casings (excluding pumps)	Turbine Pump Drive Casings. Turbine rotating element is active. Pump is addressed as separate component type. Example is the AFW pump turbine casing.	Yes	Yes	Yes

Mechanical Component Types (Non-Class 1)				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Valves (Valve Bodies Only)	Valve disc, stem assembly is active. Examples include hydraulic operated valve bodies, explosive valve bodies, manual valve bodies, small valve bodies, motor-operated valve bodies, air-operated valve bodies, main steam isolation valve bodies, small relief valve bodies, check valve bodies, safety relief valve bodies, gate, butterfly, ball and solenoid valve bodies.	Yes	Yes	Yes
Vent Screen	Vent screens on diesel fuel oil storage tank vents.	Yes	Yes	Yes
Vortex Breaker	Vortex breakers are stainless steel structures similar to other passive, long lived structures described in NEI 95-10 Rev 3, Appendix B.	Yes	Yes	Yes

Civil Component Types				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Baseplates and anchors for attachment to structures, and retaining clips		Yes	Yes	Yes
Battery Racks		Yes	Yes	Yes
Bolting	Includes bolting for Class I Tanks	Yes	Yes	Yes
Caissons (Foundations)	e.g., DG Bldg, Spillway Structure, Intake Structure have Caissons foundations. Also applicable to Turbine Building	Yes	Yes	Yes
Compressible Joints and Seals		Yes	Yes	Yes
Concrete/Concrete Elements including the following subtypes: – Above Grade - Dome; wall; ring girder; buttresses – Exterior Above Grade – Below Grade - wall; buttresses – Exterior Below Grade – Foundation; subfoundation – Interior – Pedestal – Roof Slab		Yes	Yes	Yes
Constant and variable load spring hangers; guides; stops; sliding surfaces; vibration isolators		Yes	Yes	Yes
Cranes including bridge and trolley: Structural Girders		Yes	Yes	Yes
Doors	Doors (Other than fire doors) e.g., watertight door, entry doors, etc.	Yes	Yes	Yes
Earthen water-control structures: Pond, Dams, Embankment	e.g., Service Water Pond (Ultimate Heat Sink)	Yes	Yes	Yes

Civil Component Types				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Fire Doors	Applicable to fire doors required for 10 CFR 50.48 compliance.	Yes	Yes	Yes
Fire Seals	Includes fire barrier penetration seals for piping, electrical conduit, cable tray, HVAC, and expansion joint.	Yes	Yes	Yes
Fuel Transfer Tube		Yes	Yes	Yes
Masonry Walls: All		Yes	Yes	Yes
New Fuel Storage Racks: Storage Rack Assembly		Yes	Yes	Yes
Penetration Sleeves, Penetration bellows		Yes	Yes	Yes
Personnel Airlock and Equipment Hatch		Yes	Yes	Yes
Prestressing System: Tendons; Anchorage Components	Containment Tendon system	Yes	Yes	Yes
Rail System: Rail		Yes	Yes	Yes
Seals, Gaskets and Moisture Barriers		Yes	Yes	Yes
Snubbers		No	Yes	No
Spent Fuel Storage: Fuel Pellet Canister Trap and Transport Container		Yes	Yes	Yes
Spent Fuel Storage: Fuel Rod Storage Canister		Yes	Yes	Yes
Spent Fuel Storage Racks: Storage Racks	Note: Boraflex is not credited as neutron absorber in the CLB.	Yes	Yes	Yes
Steel Components: All structural steel	Includes bolting elements	Yes	Yes	Yes
Steel Components: Liners		Yes	Yes	Yes
Steel Components: Refuel Cavity & Transfer Canal Misc. Steel		Yes	Yes	Yes
Steel Components: RPV Support		Yes	Yes	Yes
Steel elements: Liner; liner anchors; integral attachments		Yes	Yes	Yes
Stop Logs	Applicable to SW Intake structure.	Yes	Yes	Yes
Sump Trash Rack	e.g., containment emergency (ECCS & Containment Spray) sumps	Yes	Yes	Yes
Support Members: Welds; bolted connections; support anchorage to building structure		Yes	Yes	Yes
Traveling Screen	Located in SW Intake Structure	Yes	Yes	Yes
Tri-Sodium Phosphate Basket	Located inside containment and used for post-accident sump pH control.	Yes	Yes	Yes
Vibration isolation elements		Yes	Yes	Yes

Electrical and I&C Component Types				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
(Electrical) Containment Penetrations	This is part of NEI 95-10 component type number 77. Added to create a separate component type for the electrical portion of (electrical) containment penetrations.	Yes	Yes	Yes
Alarm Unit	Bistable, fire detection devices.	No	Yes	No
Analyzers	Gas analyzer, conductivity analyzer.	No	Yes	No
Annunciators	Lights, audible sound equipment.	No	Yes	No
Batteries		No	No	No
Chargers, Converters, Inverter	Power inverters, battery chargers, voltage/current converters, voltage/pneumatic converters, motor-generator sets.	No	Yes	No
Circuit Breakers	Air circuit breakers, molded case circuit breakers, oil-filled circuit breakers.	No	Yes	No
Communication Equipment	Telephone, video equipment, audio equipment, transmission line traps and other power line carrier equipment.	No	Yes	No
Controllers	Differential pressure indicating controllers, flow indicating controllers, manual loaders, programmable logic controllers, single loop digital controllers, speed controllers, temperature controllers, process controllers, selector stations, hand/auto stations, auto/manual stations, magnetic contactors, local starters, timers.	No	Yes	No
Electric Heaters		No	Yes	No
Electrical cables and connections not subject to 10 CFR 50.49 EQ Requirements (VI.A.1.1)	Power cable, control cable, communication cable, bare cable.	Yes	Yes	Yes
Electrical cables and connections subject to 10 CFR 50.49 EQ Requirements	This is part of NEI 95-10 component type number 77. It was added in order to create a separate component type for EQ cable. *EQ cables and connections have a qualified life and therefore are not subject to an AMR per 10 CFR 54.21(a)(ii). EQ cables and connections are dispositioned by TLAA.	Yes	No*	No
Electrical cables used in instrumentation circuits not subject to 10 CFR 50.49 EQ requirements that are sensitive to reduction in conductor insulation resistance (VI.A.1.2)	This is part of NEI 95-10 component type number 77. It was added in order to create a separate component type for instrumentation cable sensitive to reduction in conductor insulation resistance . Instrumentation circuits with sensitive, high voltage, low-level signals such as radiation monitoring and nuclear instrumentation.	Yes	Yes	Yes
Electrical connectors not subject to 10 CFR 50.49 EQ requirements that are exposed to borated water leakage (VI.A.2)	Connectors, splices, terminal blocks, sockets, plugs.	Yes	Yes	Yes

Electrical and I&C Component Types				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Elements, RTDs, Sensors, Thermocouples, Transducers	This is the electrical equivalent of NEI 95-10 component type number 84. Conductivity elements, flow elements, radiation sensors, temperature sensors, vibration probes, thermocouples, RTDs, amp transducers, frequency transducers, power factor transducers, speed transducers, VAR transducers, vibration transducers, voltage transducers, watt transducers, signal converters, signal selectors, square root extractors.	No	Yes	No
Emergency Lighting		No	Yes	No
Fuse Holders	Does not include fusible disconnect switches.	Yes	Yes	Yes
Fuses		No	Yes	No
Heat Tracing		No	Yes	No
High-Voltage Insulators	Porcelain switchyard insulators, transmission line insulators.	Yes	Yes	Yes
Inaccessible medium-voltage cables not subject to 10 CFR 50.49 EQ requirements (VI.A.1.3)	This is part of NEI 95-10 component type number 77. It was added in order to create a separate LRA Name for medium-voltage cable.	Yes	Yes	Yes
Indicators	Flow indicators, speed indicators, temperature indicators, analog indicators, digital indicators, LED bar graph indicators, LCD indicators. Differential pressure indicators, pressure indicators, level indicators. Conductivity meters, vibration indicators, smoke detectors.	No	Yes	No
Isolators	Transformer isolators, optical isolators, isolation relays, isolating transfer diodes.	No	Yes	No
Light Bulbs	Indicating lights, emergency lighting, incandescent light bulbs, fluorescent light bulbs.	No	No	No
Metal Enclosed Cable Bus	Metal-enclosed cable bus.	Yes	Yes	Yes
Meters	Ammeters, frequency meters, power factor meters, VAR meters, volt meters, watt meters, watthour meters.	No	Yes	No
Motors	Fan motors, pump motors, valve motors, air compressor motors.	No	Yes	No
Oil-Static Cables		Yes	Yes	Yes
Panels - Electrical Controls and Panel Internal Component Assemblies	Includes internal devices such as, but not limited to: switches, breakers, indicating lights, annunciators, recorders, indicators, meters, relays, fuses, fuse blocks, terminal blocks, hook-up wire, insulators.	No	Yes	No
Power Supplies		No	Yes	No
Radiation Monitors	Area radiation monitors, process radiation monitors.	No	Yes	No
Recorders	Chart recorders, conductivity recorders, digital recorders, events recorders, fault recorders.	No	Yes	No

Electrical and I&C Component Types				
Component Type	**Examples / Comments**	**Passive**	**Long Lived**	**AMR Required**
Regulators	Voltage regulators. Current regulators, frequency regulators.	No	Yes	No
Relays	Auxiliary relays, control logic relays, protective relays, time delay relays.	No	Yes	No
Signal Conditioners		No	Yes	No
Solenoid Operators		No	Yes	No
Solid State Devices	Circuit boards, transistors, computers.	No	Yes	No
Surge Arresters		No	Yes	No
Switches	Automatic transfer switches, conductivity switches, control switches, current switches, differential pressure indicating switches, differential pressure switches, flow switches, fusible disconnect switches, knife switches, level indicating switches, level switches, limit switches, manual transfer switches, manual disconnect switches, position switches, pressure indicator switches, pressure switches, safety switches, temperature indicating switches, temperature switches, vibration switches, moisture switches.	No	Yes	No
Switchgear, Load Centers, Motor Control Centers, and Power Distribution Panels	Includes internal devices such as, but not limited to, switches, breakers, indicating lights.	No	Yes	No
Switchyard Bus		Yes	Yes	Yes
Transformers	Instrument transformers, load center transformers, small distribution transformers, large power transformers, isolation transformers, coupling capacitor voltage transformers.	No	Yes	No
Transmission Conductors	Transmission conductors.	Yes	Yes	Yes
Transmitters	Differential pressure transmitters, flow transmitters, level transmitters, pressure transmitters, radiation transmitters, static pressure transmitters. Conductivity transmitters, temperature transmitters, valve position transmitters.	No	Yes	No

RAI (2.2-3)

In the FNP LRA, systems are identified by "LRA system" name. The LRA systems are identified in Table 2.2-1 and license renewal boundary drawing D-506450L, Sheet 1. The LRA systems (which use the "LRA system" nomenclature) may contain all or part of several FNP systems (which use the "traditional" FNP nomenclature). On page 2.2-1 of the FNP LRA, the applicant states that this change in nomenclature was implemented for ease of review and comparison to NUREG-1801, the GALL report. However, this nomenclature change introduces difficulty in the staff's review of the scoping and screening results, because the FNP UFSAR and other CLB documentation refers to systems by the traditional nomenclature. In addition, P&IDs, and pipe runs and components shown on license renewal boundary drawings are labeled using a three to six letter abbreviation (system code) based on their traditional system designations.

In order to facilitate the staff's scoping and screening review, provide a complete listing of the traditional nomenclature of FNP systems (both in-scope and out-of-scope) and system codes used as piping and component identifiers. This list should identify which LRA system, if any, is evaluated for the purpose of license renewal.

Response:

The organization of the FNP LRA systems relies heavily on the "GALL Report," NUREG 1801, for the presentation of aging management information for systems, structures, and components within the scope of license renewal. As stated in the LRA and in this RAI, SNC chose to package system information in the GALL format using the GALL system nomenclature as applicable to FNP. For each FNP LRA system, the Section 2.2 plant level scoping results and the applicable scoping section identify the FNP systems or portions of systems included consistent with the "traditional" system nomenclature utilized in the FSAR and other CLB documentation. Each scoping section also references the appropriate FSAR sections for each of the FNP systems included.

The system codes used on the component and pipe run identifiers are based on FNP's Total Plant Numbering System (TPNS). Individual plant systems are given an alphanumeric TPNS designator, and individual components within the system are identified with this designator plus other component-specific coding. TPNS system designations are frequently more subdivided than the "traditional" systems presented in the FSAR and in the license renewal application. As a result, a "traditional" FSAR system is frequently comprised of several TPNS designators.

In response to the staff's request for a complete listing of the system codes used as piping and component identifiers, SNC has included FNP drawing D-177558, "Total Plant Numbering System." Note that some designators listed on this drawing are not actually used for system or equipment labeling.

RAI (2.2-4)

FNP license renewal boundary drawing, D-506447L, identifies by room numbers the locations of safety-related components that have a potential for damage from a spatial interaction for each system. Note 3 of this boundary drawing states that the systems and rooms as identified contain non-safety-related components which may be in proximity of safety-related components. However, the staff cannot identify the corresponding rooms from the room numbers that are given.

In order to facilitate the staff's scoping and screening review, provide drawings or descriptive information that identifies the rooms by room numbers. This information should also identify the safety-related systems that contain safety-related components which may be adversely impacted by failure of non-safety-related components (brought into scope of license renewal in accordance with the requirements of 10 CFR 54.4(a)(2)).

Response:

The following table provides the rooms for the safety-related SSCs that SNC determined could be adversely impacted from an age-related failure of a nearby non-safety related SSC. These SR SSCs are electrically powered from SR powered sources. Given the categorization of the LRA, the vulnerable electrical sub-components of these SR SSCs could all be placed in the "Plant-wide Electrical Components" system. However, in developing the scope of NSR SSCs with a spatial relationship to SR SSCs, the FNP total plant numbering system (TPNS) number for the SR SSC was often recorded. Where recorded, that TPNS number is given in the table that follows. Where a TPNS number is recorded, and the information could be beneficial in understanding the impacted SR system, a description is provided in the table.

SNC identified some rooms at Plant Farley where many SR SSCs were within the interaction distance of a non-safety related SSC. In these cases, rather that evaluate each SR SSC for vulnerability to the effects of a NSR SSC age-related failure, SNC chose to bring the NSR SSC into scope for further aging management review. In the following table, SR SSCs of this type are identified as "SR Target in Room ###."

As requested, the following table also includes a room description to help further clarify the area of FNP in which the spatial interaction occurs.

Room #	Room Description	FNP System of SR SSC	SR SSC (Target) Number	SR SSC (Target) Description
58	Diesel Bldg Diesel 1B Room	DG Building HVAC	QSY41B522B-B	EDG 1B Unit Heater B
58	Diesel Bldg Diesel 1B Room	DG Building HVAC	QSY41B525B-B	EDG 1B Area Heater Thermostat
59	Diesel Bldg Diesel 2B Room	DG Building HVAC	QSY41B522E-B	EDG 2B Room Heater B
59	Diesel Bldg Diesel 2B Room	DG Building HVAC	QSY41B525E-B	EDG 2B Area Heater Thermostat
60	Diesel Bldg Diesel 1C Room	DG Jacket Water Cooling	QSR43M0508-A	Auxiliary Jacket Cooling Water Pump Motor
60	Diesel Bldg Diesel 1C Room	DG Building HVAC	QSY41B522L-A	EDG 1C Room Heater B
61	Diesel Bldg Diesel 1-2A Room	DG Process Auxiliaries	QSR43G545-A	EDG Gauge Panel
160	Hatch Area	Plant-Wide Electrical Components	Q1R18A0001A-A	CHG/HHSI PUMP 1B 4KV DISC SW 1A
160	Hatch Area	Plant-Wide Electrical Components	Q1R18A0001B-B	CHG/HHSI PUMP 1B 4KV DISC SW 1B
175	Hallway	Spaces Approach Used	SR - Target in Room 175	Vulnerable SR Target in Room 175
184	Piping Penetration Room	Spaces Approach Used	SR - Target in Room 184	Vulnerable SR Target in Room 184
185	CCW Heat Exchanger Room	Spaces Approach Used	SR - Target in Room 185	Vulnerable SR Target in Room 185
186	Boric Acid Area	CVCS - Boric Acid Transfer	Q1E21P0005A	Boric Acid Transfer Pump & Motor
186	Boric Acid Area	CVCS - Boric Acid Transfer	Q1E21P0005B	Boric Acid Transfer Pump & Motor
189	Plant Heating Equipment Room	Spaces Approach Used	SR - Target in Room 185	Vulnerable SR Target in Room 185
189	Plant Heating Equipment Room	Spaces Approach Used	SR - Target in Room 189	Vulnerable SR target in Room 189
190	AFW Control Panel Room	Spaces Approach Used	SR - Target in Room 190	Vulnerable SR Target in Room 190
191	AFW Pump Room	Spaces Approach Used	SR - Target in Room 191	Vulnerable SR Target in Room 191
192	AFW Pump Room	Spaces Approach Used	SR - Target in Room 192	Vulnerable SR Target in Room 192
193	AFW Pump Room	Spaces Approach Used	SR - Target in Room 193	Vulnerable SR Target in Room 193
194	Equipment Room	Spaces Approach Used	SR - Target in Room 194	Vulnerable SR Target in Room 194
208	Corridor	Plant-Wide Electrical Components	A1TB101	Terminal Box
208	Corridor	Plant-Wide Electrical Components	B1TB107	Terminal Box
208	Corridor	PCV - Cont. Venting & Sampling	Q1E23PI3743B	Sample Point Pressure Indicator

Room #	Room Description	FNP System of SR SSC	SR SSC (Target) Number	SR SSC (Target) Description
208	Corridor	Plant-Wide Electrical Components	Q1H21NBL2702A-A	Penetration Room Isolation Panel
208	Corridor	Plant-Wide Electrical Components	Q1H21NBL2702B-B	Penetration Room Isolation Panel
208	Corridor	Plant-Wide Electrical Components	Q1R17B0002-B	MCC 1B
209	Hallway	Plant-Wide Electrical Components	Q1R41L0001F-B	125VDC Panel 1F
223	Piping Penetration Room	Spaces Approach Used	SR - Target in Room 223	Vulnerable SR Target in Room 223
232	Sluice Filter Room	Plant-Wide Electrical Components	B1TB110	Terminal Box
254	Hallway	Plant-Wide Electrical Components	Q1H21NBAFP2605B-B	Unit 1 Hot Shutdown Panel Cabinet B
254	Hallway	Plant-Wide Electrical Components	Q1H21NBAFP2605D-A/B	Unit 1 Hot Shutdown Panel Cabinet D
254	Hallway	Plant-Wide Electrical Components	Q1H21NBAFP2605E-A	Unit 1 Hot Shutdown Panel Cabinet E
254	Hallway	Plant-Wide Electrical Components	Q1H21NBAFP2605G-A	Unit 1 Hot Shutdown Panel Cabinet G
332	MCC Area	Plant-Wide Electrical Components	Q1R17B0001-A	MCC 1A
332	MCC Area	Plant-Wide Electrical Components	Q1R17L0001A	MCC 1A Aux. Relay Cab.
342	Suction & Discharge Room	SPC&C - Spent Fuel Cooling	Q1G31M0002A	SFP pump motor
342	Suction & Discharge Room	SPC&C - Spent Fuel Cooling	Q1G31M0002B-A	SFP pump motor
405	Hatch Area	Plant-Wide Electrical Components	QSR17B0007-B	MCC 1G
405	Hatch Area	Plant-Wide Electrical Components	QSR17E0001-B	Transformer
405	Hatch Area	Plant-Wide Electrical Components	QSR19L0008A-A	208V Dist. Panel 1FF
409	Hallway	Spaces Approach Used	SR - Target in Room 409	Vulnerable SR Target in Room 409

Room #	Room Description	FNP System of SR SSC	SR SSC (Target) Number	SR SSC (Target) Description
419	Demineralizer Hatch Area	Plant-Wide Electrical Components	QSR19L0008B-B	120/208 VAC Distribution Panel 1FF
505	Component Cooling Surge Tank room	Spaces Approach Used	SR - Target in Room 505	Vulnerable SR Target in Room 505
2160	Hatch Area	Plant-Wide Electrical Components	Q2R18A0001A-A	CHG/HHSI PUMP 2B 4KV DISC
2160	Hatch Area	Plant-Wide Electrical Components	Q2R18A0001B-B	CHG/HHSI PUMP 2B 4KV DISC
2161	Corridor	Spaces Approach Used	SR - Target in Room 2161	Vulnerable SR Target in Room 2161
2184	Piping Penetration Room	Spaces Approach Used	SR - Target in Room 2184	Vulnerable SR Target in Room 2184
2185	CCW Heat Exchanger Room	Plant-Wide Electrical Components	Q2R18A0004A-A	4 kV Disconnect Switch 2A for CCW Pump 2B
2185	CCW Heat Exchanger Room	Plant-Wide Electrical Components	Q2R18A0004B-B	4kV Disconnect Switch2B for CCw Pump 2b
2186	Boric Acid Area	CVCS - Boric Acid Transfer	Q2E21P0005A	Boric Acid Batching Pump & Motor
2186	Boric Acid Area	CVCS - Boric Acid Transfer	Q2E21P0005B	Boric Acid Transfer Pump & Motor
2189	Plant Heating Equipment Room	CA - Compressed Air	Q2P18C0002A	Emergency Air Compressor 2A
2190	AFW Control Panel Room	Spaces Approach Used	SR - Target in Room 2190	Vulnerable SR Target in Room 2190
2191	AFW Pump Room	Spaces Approach Used	SR - Target in Room 2191	Vulnerable SR Target in Room 2191
2192	AFW Pump Room	Spaces Approach Used	SR - Target in Room 2192	Vulnerable SR target in Room 2192
2193	AFW Pump Room	Spaces Approach Used	SR - Target in Room 2193	Vulnerable SR target in Room 2193
2194	Equipment Room	Plant-Wide Electrical Components	Q2N23L0001	Turbine Driven AFW Pump Uninterruptible Power Supply
2194	Equipment Room	Spaces Approach Used	SR - Target in Room 2194	Vulnerable SR target in Room 2194
2209	Hallway	ESF Rooms HVAC	Q2E16TC3983A	MCC 2B ROOM COOLER CONTROL
2209	Hallway	ESF Rooms HVAC	Q2E16TC3983B	MCC 2B ROOM COOLER THERMOSTAT
2209	Hallway	Plant-Wide Electrical Components	Q2R17B0002-B	MCC 2B
2223	Piping Penetration Room	Spaces Approach Used	SR - Target in Room 2223	Vulnerable SR Target in Room 2223
2254	Walkway	Plant-Wide Electrical Components	Q2H21NBAFP2605C-B	Hot Shutdown Panel Cabinet C

Room #	Room Description	FNP System of SR SSC	SR SSC (Target) Number	SR SSC (Target) Description
2254	Walkway	Plant-Wide Electrical Components	Q2H21NBAFP2605F-A/B	Hot Shutdown Panel Cabinet F
2254	Walkway	Plant-Wide Electrical Components	Q2N23L0002-AB	Aux Shutdown Panel
2312	Corridor	Plant-Wide Electrical Components	A2TB014	Terminal Box
2312	Corridor	Plant-Wide Electrical Components	Q2R17L0001A-A	MCC 2A Aux Relay Cabinet
2312	Corridor	Plant-Wide Electrical Components	Q2R41L0001C-A	125 VDC Panel 2C
2332	MCC Area	Plant-Wide Electrical Components	Q2R17B0001-A	MCC 2A
2332	MCC Area	Plant-Wide Electrical Components	Q2R17L0001A-A	MCC 2A Aux Relay Cabinet
2332	MCC Area	Plant-Wide Electrical Components	Q2R18B0038-A	Disconnect for Charging System MOV
2332	MCC Area	Plant-Wide Electrical Components	Q2R18B0039-A	CHG SUCTION HDR MOV8131A DISCONNECT
2332	MCC Area	Plant-Wide Electrical Components	Q2R18B0040-A	CHARGING DISCHARGE HEADER MOV8133A DISCONNECT
2342	Spent Fuel Pool Pump Room	Spaces Approach Used	SR - Target in Room 2342	Vulnerable SR Target in Room 2342
2405	Hatch Area	Plant-Wide Electrical Components	Q2R17B0099B	MCC 2DD
2409	Hallway	Plant-Wide Electrical Components	A2TB095	Terminal box
2409	Hallway	OCCW - Power Control	Q2P16L0001-A	SW Relay Cabinet A
2409	Hallway	OCCW - Power Control	Q2P16L0002-B	SW Relay Cabinet B
2409	Hallway	Plant-Wide Electrical Components	Q2R17B0098	MCC 2CC
2501	Control Room Vent Equipment Room	CRAV - Ctrl Room HVAC	Q2V47M0016A	Exhaust Fan Motors
2501	Control Room Vent Equipment Room	CRAV - Ctrl Room HVAC	Q2V47M0016B	Exhaust Fan Motor

Room #	Room Description	FNP System of SR SSC	SR SSC (Target) Number	SR SSC (Target) Description
2501	Control Room Vent Equipment Room	RM - Radiation Monitoring	QSD11RE0035A-A	Rad Monitor
2505	SFP Vent Equipment Room	Spaces Approach Used	SR - Target in Room 2505	Vulnerable SR Target in Room 2505
72A	SWIS Pump Room	Spaces Approach Used	SR - Targets in Room 72A	Vulnerable SR targets in Room 72A

RAI (2.3.3.2-1)

Section 9.1.2.1 of the FNP UFSAR describes a transport container with a pellet canister trap and a fuel rod storage canister as additional storage containers for spent fuel rods and fuel rod debris. These storage containers provide the intended functions of radiation shielding and debris protection. Justify the exclusion of these components 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.

Response:

As stated in UFSAR Section 9.1.2.1, loose fuel pellets and fuel rod debris from fuel rod failures may be stored in a pellet canister trap inside a transport container in the spent fuel storage racks. Also, fuel rods removed during the fuel reconstitution process can be stored in a fuel rod storage canister in the spent fuel storage racks. SNC concurs that these components are in the scope of license renewal and subject to an AMR. These containers will be added to the scope of license renewal associated with the Spent Fuel Storage facility which is addressed as part of the Auxiliary Building scoping (Section 2.4.2.1 of the LRA).

The component intended function for the pellet canister trap, transport container, and the fuel rod storage canister is to provide structural support to facilitate storage and transport. These storage containers do not provide the intended functions of radiation shielding and debris protection. Radiation shielding is provided by the water in the spent fuel pool and by the concrete of the pool structure. Debris protection is a function used where filters, screens, strainers, gratings, etc., are installed to protect in-scope equipment from damage due to foreign material. Neither of these functions is appropriate for these items.

RAI (2.3.3.2-2)

License renewal boundary drawings D-175043L (Unit 1) and D-205043L (Unit 2) at location D9 show strainers on the spent fuel pool cooling system suction and supply lines as outside the scope of license renewal. Degraded or blocked strainers could impair the performance of the decay heat removal intended function. Justify the exclusion of these components 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.

Response:

The Spent Fuel Cooling and Cleanup System pump suction strainers shown on license renewal boundary drawings D-175043L and D-205043L are excluded from the scope of license renewal because they do not perform a license renewal intended function as defined by 10 CFR 54.4.

The strainers are provided as a prudent design provision but do not perform a safety related function or support a regulated event. Pool cleanliness and foreign material exclusion control are maintained, so there is no source of debris. Blockage of strainers is an event-driven scenario beyond the licensing basis for the system.

There is no applicable failure mechanism that can affect a safety related function. There is no aging effect for stainless steel strainers in a borated water environment that would result in a failure that could impact the spent fuel pool cooling safety function. In addition, the FNP Water Chemistry Program is already credited in the LRA for managing the spent fuel pool's water chemistry.

In summary, these strainers are not within the scope of 10 CFR 54.4(a).

RAI (2.3.3.20-1)

Magnetic level indicators are shown on license renewal boundary drawing D-372816L at locations B3 and B9 and are shown to be within the scope of license renewal. However, magnetic level indicators are not listed in LRA Table 2.3.3.20. These components provide a pressure boundary intended function. Clarify whether the pressure retaining boundary of the magnetic level indicators is subject to an AMR. If not, justify the exclusion of these components from being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).

Response:

The stainless steel pressure boundary subcomponents of the magnetic level indicators are included in the component type "piping" in Table 2.3.2.20. The pressure boundaries of the magnetic level indicators shown on License Renewal Mechanical Boundary Drawing D-372816L are subject to an AMR. While level indicators are considered active components that are not subject to an AMR and are specifically excluded in 10 CFR 54.21(a)(1), the configuration of these components is unique. The magnetic level indicator consists of a vertical stainless steel pipe with a scale strapped to the outside, and a float inside. The pressure boundary subcomponents of the magnetic level indicators are conservatively included in the scope of license renewal to ensure that the pressure boundary of the system is maintained. A failure at the bottom of this pipe could cause the oil storage tank to drain to the floor.

RAI (2.3.3.20-2A)

License renewal boundary drawing D-372816L shows an unidentified component (equipment ID: 1RV2, 1RV1, 2RV2 and 2RV1) at locations D3, D5, D9 and D10 respectively, to be within the scope of license renewal. These components are not listed in the Bechtel Standard P&ID Legend Drawing D-175016, Sheets 1, 2 and 3. Identify these components, and clarify if they are subject to an AMR. If not, justify the exclusion of these components from being subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1).

Response:

License Renewal Mechanical Boundary Drawing D-372816L was created from a vendor drawing. The vendor drawing does not use the standard symbolism depicted on Drawing D-175016, therefore some of the symbols and component identifiers on D-372816L are non-standard. The components addressed by this RAI (1RV1, 1RV2, 2RV1, 2RV2) are relief valves (RV) and are subject to an AMR. The "Valve Bodies" component type in Table 2.3.3.20 includes these relief valves.

RAI (2.3.3.20-2B)

License renewal boundary drawing D-372816L shows unidentified components 1RD and 2RD at locations B5 and B10 respectively. These components are not listed in the Bechtel Standard P&ID Legend drawing D-175016 sheets 1, 2 and 3. These components should be within the scope of license renewal and included in LRA Table 2.3.3.20, since they provide a pressure boundary intended function. Identify these components, and clarify if they are within the scope of license renewal and subject to an AMR. If not, justify the exclusion of these components 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.

Response:

License Renewal Mechanical Boundary Drawing D-372816L was created from a vendor drawing. The vendor drawing does not use the standard symbolism depicted on Drawing D-175016, therefore some of the symbols and component identifiers on D-372816L are non-standard. The components addressed by this RAI (1RD, 2RD) are rupture disks (RD) which are not within the scope of license renewal and therefore are not subject to an AMR. The oil storage tanks have a nitrogen cover gas applied to prevent moisture intrusion, not to provide pump suction head. A rupture disk is provided to protect the tank from overpressure. Since aging related failure of the rupture disk can not prevent the Oil-Static Cable Pressurization System from supplying oil to the underground cables, the rupture disks are not in scope and aging management is not required.

ENCLOSURE 2

Drawing D-177558, "Joseph M. Farley Nuclear Plant Unit 1 & 2, Total Plant Numbering System"

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PROPRIETARY

D-01