



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

July 18, 2019

Mr. Fadi Diya, Senior Vice President
and Chief Nuclear Officer
Ameren Missouri
Callaway Plant
8315 County Road 459
Steedman, MO 65077

**SUBJECT: CALLAWAY PLANT, UNIT 1 – NOTIFICATION OF NRC DESIGN BASES
ASSURANCE INSPECTION (PROGRAMS) (05000483/2019011) AND INITIAL
REQUEST FOR INFORMATION**

Dear Mr. Diya:

On October 8, 2019, the NRC will begin an inspection at the Callaway Plant, Unit 1. A three-person team will perform this inspection using NRC Inspection Procedure 71111.21N, "Design Bases Inspection (Programs);" Attachment 1, "Environmental Qualification under 10 CFR 50.49 Programs, Processes, and Procedures."

This inspection will evaluate the implementation of the environmental qualification of electrical equipment program, as required by the Callaway Plant Operating License. Additionally, the team will perform an inspection of the equipment qualification documentation files to verify that electrical equipment important to safety meets the requirements of 10 CFR 50.49. The team will select components that will be subjected to harsh environments and required to mitigate the consequences of a design basis accident.

The inspection will include an information gathering site visit by the team leader and 2 weeks of onsite inspection by the team. The inspection will consist of three NRC inspectors. The current inspection schedule is as follows:

Onsite Information Gathering Visit: October 8, 2019
Preparation Week: October 14-18, 2019
Onsite Weeks: October 21-25, 2019; and November 4-8, 2019

The purpose of the information gathering visit is to meet with members of your staff to become familiar with the Callaway Plant environmental qualification program. The lead inspector will request a meeting with your personnel to discuss the site environmental qualification program and procedures. Additionally, the lead inspector will request a discussion with your staff to become familiar with the equipment qualification regulations and standards to which the site is committed. Additional information and documentation needed to support the inspection will be identified during the inspection, including interviews with engineering managers and engineers.

Our experience with these inspections has shown that they are resource intensive, both for the NRC inspectors and the licensee staff. In order to minimize the inspection impact on the site and to ensure a productive inspection, we have enclosed a request for information needed for the inspection. This information should be made available to the lead inspector during the

October 8, 2019 visit. Since the inspection will be concentrated on the environmental qualification of the equipment, the Equipment Qualification Master List (EQML) should be available to review during the information gathering visit to assist in our selection of components.

Additional requests by inspectors will be made during the onsite week for specific documents needed to complete the review of that component/selection. It is important that all of these documents are up-to-date and complete in order to minimize the number of additional documents requested during the preparation and/or the onsite portions of the inspection. To facilitate the inspection, we request that a contact individual be assigned to each inspector to ensure information requests, questions, and concerns are addressed in a timely manner.

The lead inspector for this inspection is Gerond A. George. If there are any questions about the inspection or the requested materials, please contact the lead inspector by telephone at 817-200-1562 or by e-mail at Gerond.George@nrc.gov.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Gerond A. George, Chief (Acting)
Engineering Branch 1
Division of Reactor Safety

Docket No. 50-483
License No. NPF-30

Enclosure: Design Bases Inspection (Programs)
Environmental Qualification Request for Information

cc: Electronic Distribution for the Callaway Plant, Unit 1

**Initial Request for Information
Design Bases Inspection (Programs), Environmental Qualification
Callaway Plant, Unit 1**

Inspection Report: 05000483/2019011

Information Gathering Date: October 8, 2019

Inspection Dates: October 21-25, 2019
November 4-8, 2019

Inspection Procedure: IP 71111, Attachment 21N, "Design Bases Inspection (Programs)"

Lead Inspector: Gerond A. George, Senior Reactor Inspector

I. Information Requested for Information Gathering Visit (October 8, 2019)

The following information should be provided to the lead inspector in hard copy or electronic format (electronic database preferred), to the attention of Gerond A. George by October 8, 2019, to facilitate the reduction in the items to be selected for a final list of components. The inspection team will finalize the selected list during the prep week using the documents requested in this enclosure. The specific items selected from the lists shall be available and ready for review on the day indicated in this request.

*Please provide requested documentation electronically in "pdf" files, Excel, or other searchable formats, if possible. The information should contain descriptive names and be indexed and hyperlinked to facilitate ease of use. Information in "lists" should contain enough information to be easily understood by someone who has knowledge of pressurized water reactor technology. If requested documents are large and only hard copy formats are available, please inform the inspectors, and provide subject documentation during the first day of the onsite inspection.

1. List of components that are in Equipment Qualification Master List. If the plant is approved to categorize structures, systems, and component in accordance with 10 CFR 50.69, please provide the Risk-Informed Safety Category of the component.
2. Listing of the Equipment Qualification Master List components sorted by Birnbaum risk importance and risk achievement worth.
3. List of all post-accident monitoring instrumentation components and locations.
4. Documents which show the environmental service conditions expected for areas in which the equipment qualification components are located.
5. Callaway Plant, word-searchable Updated Final Safety Analysis Report (UFSAR), License Conditions, and Technical Specifications. Specifically identify which UFSAR sections address environmental (including seismic) qualification, seismic.

Enclosure

6. NRC Safety Evaluation Reports associated with Callaway Plant environmental qualification program.
7. Identify the various environmental qualification standards (including year, edition, or revision) that Callaway Plant is committed.
8. Identify whether Callaway Plant has entered its period of extended operation (i.e., operation past the original 40-year license period).
9. Site (and corporate if applicable) procedures associated with the 10 CFR 50.49 environmental qualification program for electrical components. Additionally, please provide similar procedures used to verify mechanical components meet their 10 CFR 50, Appendix A, Criterion 4, "Environmental and Dynamic Effects Design Bases." Include procedures for procurement of qualified equipment, maintenance of qualified equipment, and modification to qualified equipment (including equivalency or commercial grade dedication programs).
10. Site high energy line break analyses, including associated plant area drawings.
11. Procedures for material storage and shelf life controls.
12. List of commercial grade dedication evaluations performed, for which the dedicated parts have been issued for installation on equipment qualification applications in the plant, for the previous 5 years. Include description of the component the part was issued to repair, work order, and date issued or installed.
13. List of condition reports related to the equipment qualification program or environmental qualification of components (both electrical and mechanical) for the previous 5 years.
14. Lists of modifications, repairs, or replacement of Equipment Qualification Master List components completed for the previous 5 years.
15. List of modifications, repairs, or replacements of containment penetrations for the previous 5 years.
16. List of components removed from the environmental qualification program since beginning of operation.
17. Any self-assessments and quality assurance assessments of the environmental qualification program performed in the previous 5 years.
18. List of systems, system numbers/designators and corresponding names.

II. Discussions Requested (October 8, 2019)

1. Interview with representative to discuss site environmental qualification service condition analyses for plant areas, including plant drawings and assumptions. This includes analysis for areas that are subject to high energy line breaks (HELB).

2. Interview with representative to discuss how environmental qualification mandated maintenance elements are integrated into plant programs and procedures.
3. Interview with representative to discuss maintaining qualification for plant/equipment that has entered its period of extended operation, if applicable.

III. Information Requested for Inspection Preparation (October 14, 2019)

1. Equipment qualification documentation files, including test reports, for the electrical components selected by the lead inspector listed on the Equipment Qualification Master List.
2. References associated with the electrical components' equipment qualification document files.
3. Vendor manuals and technical sheets associated with the selected electrical components.
4. Tours of the rooms in which the selected electrical components are installed.
5. Tour of stored selected electrical components in the warehouse.

Inspectors Contact Information:

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Arlington, TX 76011-4511

CALLAWAY PLANT, UNIT 1 – NOTIFICATION OF NRC DESIGN BASES ASSURANCE
INSPECTION (PROGRAMS) (05000483/2019011) AND INITIAL REQUEST FOR
INFORMATION – JULY 18, 2019

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☒ SUNSI Review: ADAMS: ☐ Non-Publicly Available ☒ Non-Sensitive Keyword: NRC-002
By: GAG ☒ Yes ☐ No ☒ Publicly Available ☐ Sensitive

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