



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

February 25, 2019

Mr. Charles Arnone
Vice President, Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT—REQUEST FOR INFORMATION DESIGN
BASES ASSURANCE INSPECTION (PROGRAM); NRC INSPECTION
REPORT 05000255/2019010

Dear Mr. Arnone:

On July 15, 2019, the U.S. Nuclear Regulatory Commission (NRC) will begin a Triennial Baseline Design Bases Assurance Inspection (Program) at Palisades Nuclear Plant. This inspection will be performed in accordance with NRC Baseline Inspection Procedure 71111.21N, Attachment 1.

The Design Bases Assurance Inspection will focus on the implementation of the Electrical Equipment Environmental Qualification (EQ) Program to verify you are maintaining the qualified status of equipment during the life of the plant. The final selection of EQ components to be reviewed during this baseline inspection will be identified during the in-office preparation week that occurs prior to the first onsite inspection week.

The inspection will include 2 weeks onsite. The inspection team will consist of three NRC inspectors. The current inspection schedule is as follows:

- Team preparation week: July 8, 2019, through July 12, 2019;
- Onsite inspection weeks: July 15, 2019, through July 19, 2019; and
July 29, 2019, through August 2, 2019.

Experience with previous baseline design inspections of similar depth and length has shown this type of inspection is extremely 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 for both parties, we have enclosed a request for information needed for the inspection.

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. Insofar as possible, this information should be provided electronically to the lead inspector. The information request has been divided into four groups:

- The first group lists information necessary for our initial inspection scoping activities. This information should be provided to the lead inspector no later than April 12, 2019. The lead inspector will communicate the initial selected EQ components no later than May 17, 2019.
- The second group of documents requested is those items needed to support our in-office preparation activities. This set of documents should be provided to the lead inspector at the Regional Office no later than June 5, 2019. During the in-office preparation activities, the team may identify additional information needed to support the inspection.
- The third group includes the additional information above. This information should be available to the team onsite on July 15, 2019.
- The last group includes supporting information to be provided throughout the inspection. Specifically, corrective action documents and questions developed during the inspection are requested to be provided as the documents are generated.

In addition, the enclosure includes information and requests addressing inspection logistics.

The lead inspector for this inspection is Néstor J. Félix-Adorno. We understand that our licensing contact for this inspection is Barb Dotson of your organization. If there are any questions about the inspection or the material requested in the enclosure, please contact the lead inspector at 630-829-9739 or via e-mail at Nestor.Feliz-Adorno@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.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations*, Part 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Néstor J. Félix-Adorno, Senior Reactor Engineer
Engineering Branch 2
Division of Reactor Safety

Docket Nos. 50-255; 72-007
License No. DPR-20

Enclosure:
Document Request for Design Bases
Assurance Inspection EQ Program

cc: Distribution via LISTSERV®

Letter to Charles Arnone from Néstor J. Félix-Adorno dated February 25, 2019.

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BASES ASSURANCE INSPECTION (PROGRAM); NRC INSPECTION
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DOCUMENT REQUEST FOR DESIGN BASES ASSURANCE INSPECTION EQ PROGRAM

I. ADMINISTRATIVE INSPECTION INFORMATION

Inspection Report Number:	05000255/2019010
Onsite Inspection Dates:	July 15, 2019, through July 19, 2019; and July 29, 2019, through August 2, 2019.
Inspection Procedure:	71111.21N, "Design Bases Assurance Inspection (Program)," Attachment 1, "Environmental Qualification under Title 10 of the <i>Code of Federal Regulations</i> , Part 50.49, Programs, Processes, and Procedures"
Lead Inspector:	Néstor J. Félix-Adorno 630-829-9739 Nestor.Feliz-Adorno@nrc.gov
Teammate Inspectors:	John Bozga, Senior Reactor Engineer, RIII/DRS Michael Greenleaf, Reactor Engineer, RII/DRS

II. LOGISTICS

Email the following inspection logistics to the lead inspector by June 5, 2019, or sooner:

1. Inspection room name/number, directions from the main access facility, and phone number;
2. Interview room name/number;
3. Response team contact information (names and phone numbers) and team roles (e.g., management sponsor, lead, inspector counterpart);
4. Any site access/badging actions needed for each inspector;
5. Any dosimetry actions needed for each inspector;
6. Entrance meeting time (preferably after 11:00 a.m. Eastern Time) and location;
7. Confirmation that the team will have access to a licensee computer with a nearby printer;
8. Confirmation that the team will have Wi-Fi access;
9. Cafeteria location and hours;
10. Engineering staff normal working hours; and
11. Any potential resource conflicts during the inspection (e.g., emergency drills and all-staff meetings).

Enclosure

III. INFORMATION REQUEST

Contact the lead inspector as soon as possible if you have any questions regarding this information request. Provide the information electronically in “pdf” files, Excel, or other searchable formats, preferably on some portable electronic media (e.g., CD-ROM, DVD). The files 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 light water reactor technology.

1. Information Requested for Initial Inspection Scoping Activities

The following information is requested by April 12, 2019, or sooner, to facilitate the initial sample selection.

- 1.1. Risk-ranking of top 250 components required to meet environmental qualifications (EQ) from your site specific probabilistic safety analysis sorted by Risk-Achievement Worth. Include values for Birnbaum Importance, Risk-Reduction Worth, and Fussell-Veseley (as applicable). Provide any basic event mapping used to develop the ranking of components.
- 1.2. Probabilistic Safety Analysis listing of top ten risk significant systems.
- 1.3. U.S. Nuclear Regulatory Commission Safety Evaluation Reports associated with EQ.
- 1.4. Updated Final Safety Analysis Report, Technical Specifications, Technical Specifications Bases, and Technical Requirements Manual. If any of these documents is not available electronically, contact the lead inspector. Specifically identify which Updated Final Safety Analysis Report sections address EQ (including seismic).
- 1.5. Identify the various EQ standards (including year, edition, or revision) that the station is committed to.
- 1.6. Site (and corporate if applicable) procedures associated with the Title 10 of the *Code of Federal Regulations*, Part 50.49, EQ Program for electrical components. Include procedures for procurement of qualified equipment, maintenance of qualified equipment, modification to qualified equipment (including Equivalency or Commercial Grade Dedication (CGD) Programs), and material storage and shelf life controls.
- 1.7. Environmental Qualifications Design Basis Document, if applicable.
- 1.8. Any open licensing commitments related to EQ, if applicable.
- 1.9. Equipment Qualification Master List (EQML). Specific issues to be identified include: safety classification (safety-related or non safety-related), Regulatory Guide 1.97 instrumentation, EQ qualification (e.g., DOR, NUREG-588, 50.49), original or replaced after implementation of 50.49, plant location, and qualified life.

DOCUMENT REQUEST FOR DESIGN BASES ASSURANCE INSPECTION EQ PROGRAM

- 1.10. List of any installed equipment removed from the EQML and basis for removal.
- 1.11. List of EQ solenoid valves that are normally continuously energized.
- 1.12. If EQ files were reviewed for Aging Management effects of license renewal, identify which EQ files were modified/changed to incorporate appropriate actions for the period of extended operation. Include any EQ Aging Management Program documents.
- 1.13. List or drawings of plant areas that are subjected to EQ, identifying design (limiting) temperature, high energy line break, radiation levels, etc. that the associated equipment will have to be qualified to meet EQ. If the reactor unit has obtained a power uprate (greater than 5 percent) provide same information pre-update (earliest available if multiple uprates).
- 1.14. List of CGD evaluations performed, for which the dedicated parts have been issued for installation (parts issued for the last 10 years) on EQ applications in the plant. Include CGD evaluation number, name of part, component ID or description of the component the part was issued to repair, work order, and date issued or installed.
- 1.15. List of Corrective Action Documents related to the EQ Program or EQ of specific components for the last 5 years.
- 1.16. Any self-assessment and/or audit of the EQ Program in the last 3 years.
- 1.17. Current management and engineering organizational chart.
- 1.18. Licensing point of contact information (name, phone number, and email).

2. Information Requested to Support Inspection Preparation Activities

The following information is requested by June 5, 2019, or sooner, to facilitate the final inspection preparation. This information request is associated with the selected components and should be separated by component (e.g., folder with component name that includes EQ files, Qualification Test Reports, calculations, corrective action documents, and maintenance history).

- 2.1. Component/subcomponent EQ summary report.
- 2.2. Qualification Maintenance Requirement Sheet or equivalent.
- 2.3. List of corrective action documents associated with each selected component for the last 5 years.
- 2.4. Photos of any component in containment or high radiation areas, if available.
- 2.5. EQ file, including associated Qualification Test Reports.

DOCUMENT REQUEST FOR DESIGN BASES ASSURANCE INSPECTION EQ PROGRAM

- 2.6. Vendor manual. If an electronic copy is not available, include a statement explaining this and provide a hard copy during the onsite phase of the inspection.
- 2.7. Preventive maintenance template.
- 2.8. Last two performed work order (WO) for each associated EQ preventive maintenance.
- 2.9. List of corrective maintenance WOs for the last 10 years. Include WO number, date performed, and brief one line description.
- 2.10. If repair work (e.g., a motor rewind) was performed under a purchase order, provide the purchase order.
- 2.11. Thermal life calculation.

3. Additional Information to Be Provided Onsite

During the in-office preparation activities, the team may identify additional information needed to support the inspection. The lead inspector will provide a list of the additional information needed during the week of July 8, 2019.

4. Information Requested to Be Provided Throughout the Inspection

- 4.1. Any corrective action documents generated as a result of the team's questions during this inspection as the documents are generated.
- 4.2. List of questions and/or document requests submitted by the team and their status (e.g., open, closed) sorted by inspector. Provide daily by 2:30 p.m. to each inspector. It is recommended to provide the team leader with a master list sorted by inspector and each inspector with a list containing only the items originated by that inspector.