



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

January 5, 2022

Mr. David P. Rhoades
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

**SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT – INFORMATION
REQUEST FOR A TRIENNIAL BASELINE DESIGN BASES ASSURANCE
INSPECTION (TEAM); INSPECTION REPORT 05000333/2022010**

Dear Mr. Rhoades:

The purpose of this letter is to notify you that the U.S. Nuclear Regulatory Commission (NRC) Region I staff will conduct a Design Bases Assurance Inspection (DBAI) at FitzPatrick Nuclear Power Plant. Joe Schoppy, a Senior Reactor Inspector from the NRC's Region I Office, will lead the inspection team. The inspection will be conducted in accordance with Inspection Procedure 71111.21M, "Design Bases Assurance Inspection (Team)," dated December 8, 2016 (ADAMS Accession No. ML16340B000).

The inspection will evaluate the capability of risk-significant/low-margin components to function as designed to support proper system operation. The inspection will also include a review of selected modifications, operating experience, and as applicable, operator actions.

During a telephone conversation on January 3, 2022, with Mr. Mark Hawes, FitzPatrick Regulatory Assurance, we confirmed arrangements for an information-gathering site visit and the two-week onsite inspection. The schedule is as follows:

- Information-gathering visit: Week of March 7, 2022
- Onsite weeks: Weeks of May 2 and May 16, 2022

The purpose of the information-gathering visit is to meet with members of your staff to identify risk-significant components, modifications, operator actions, and operating experience items. Information and documentation needed to support the inspection will also be identified. Dave Werkheiser, a Region I Senior Risk Analyst, will support Joe Schoppy during the information-gathering visit to review probabilistic risk assessment data and identify components to be examined during the inspection.

Experience with previous baseline design/modification inspections of similar depth and length has shown this type of inspection is 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 two groups:

- The first group lists information necessary for our initial inspection scoping activities. This information should be provided to the lead inspector by March 7, 2022. By March 14, 2022, the lead inspector will communicate the initial selected set of components and modifications.
- The second group of documents requested is those items needed to support our in-office preparation activities. This set of documents, specific to the selected components and modifications, should be provided to the lead inspector at the Region I Office no later than April 25, 2022. During the in-office preparation activities, the team may identify additional information needed to support the inspection, and those items will be communicated directly to Mark Hawes.

If there are any questions about the inspection or the material requested in the enclosure, please contact Mr. Joe Schoppy at 610-337-5286 or via e-mail at jgs@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 and its enclosure 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,

Mel Gray, Chief
Engineering Branch 1
Division of Operating Reactor Safety

Docket No. 05000333

License No. DPR-59

Enclosure:
Document Request for Design Bases
Assurance Inspection

cc: Distribution via ListServ

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REQUEST FOR A TRIENNIAL BASELINE DESIGN BASES ASSURANCE
INSPECTION (TEAM); INSPECTION REPORT 05000333/2022010 DATED
JANUARY 5, 2022

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DOCUMENT REQUEST FOR DESIGN BASES ASSURANCE INSPECTION

Inspection Report: 05000333/2022010

Onsite Inspection Dates: May 2, 2022 through May 6, 2022; and
May 16, 2022 through May 20, 2022

Inspection Procedure: Inspection Procedure 71111.21M, Design Bases Assurance
Inspection (Team)

Lead Inspector: Joe Schoppy, Senior Reactor Inspector
610-337-5286
jgs@nrc.gov

I. Information Requested for Selection of Components and Modifications

The following information is requested by March 7, 2022, to facilitate inspection preparation. Feel free to contact the lead inspector as soon as possible if you have any questions regarding this information request. Please 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. The site probabilistic risk analysis (PRA) "System Notebook" and latest PRA Summary Document.
2. Risk ranking of top 250 basic events sorted by Risk Achievement Worth (≥ 1.3). Include values for Risk Reduction Worth, Birnbaum Importance, and Fussell-Vesely (as applicable). Please provide in an excel spreadsheet or other sortable format, and include an understandable definition of the coded basic events.
3. Risk-ranking of top 100 components from site specific PRA sorted by Large Early Release Frequency.
4. If you have an External Events PRA Model, provide the information requested in Item 2 for external events. Provide narrative description of each coded event, including flood zone description.
5. List of time-critical and/or risk significant operator actions.
6. List of emergency and abnormal operating procedures.
7. If available, any pre-existing evaluation or list of components and associated calculations with low design margins (e.g., pumps closest to the design limit for flow or pressure, diesel generator close to design required output, heat exchangers close to rated design heat removal).

Enclosure

DOCUMENT REQUEST FOR DESIGN BASES ASSURANCE INSPECTION

8. If applicable, copy of any self-assessments and/or Quality Assurance assessments of low margin structures, systems and components (SSCs) completed since August 1, 2019.
9. List of available design margins in both the open and closed direction for valves in the motor-operated valve and air-operated valve programs (related to GL 96-05, looking for resultant output – matrix of risk vs margin for MOVs and AOVs, as applicable).
10. The age and capacity of the safety-related DC batteries.
11. The In-Service Testing (IST) Program Basis document identifying the in-scope valves and pumps, and the associated IST Program requirements for each component (e.g., IST valve table identifying category, active/passive function).
12. Access to IST trend data for the following pumps: HPCI, RCIC, RHR, and ESW. [Note: needed for each discrete component (e.g. for each RHR pump)]
13. Listing of MR (a)(1) systems, date entered into (a)(1) status, and brief description of why (a)(1).
14. List of MRFFs evaluations completed since August 1, 2019 (include those determined not to be a MRFF).
15. A copy of the most recent System Health and/or trending reports for the following systems (as applicable): SR 4KV, SR 600 Vac, HPCI, RCIC, RHR, ESW, SR 125 Vdc, SR 419 Vdc, SLC, EDGs, and RHRSW.
16. A copy of the most recent Program Health and/or trending reports for the following programs, as applicable: GL 89-10 (MOVs), GL 89-13, IST, AOVs, breakers, relays.
17. List of open operability evaluations.
18. List of current “operator work arounds/burdens.”
19. List of “permanent plant modifications” to SSCs that are field work complete since August 1, 2019. For the purpose of this inspection, permanent plant modifications include permanent: plant changes, design changes, set point changes, equivalency evaluations, suitability analyses, and commercial grade dedications. The list should contain the number of each document, title (sufficient to understand the purpose of the modification), revision/date, and the affected system.
20. List of calculation changes (including new calculations) that have been issued for use since August 1, 2019.
21. Corrective Action Program procedure.
22. Procedures addressing the following: modifications, design changes, set point changes, equivalency evaluations or suitability analyses, commercial grade dedications, and post-modification testing.

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23. List of corrective action documents (open and closed) since August 1, 2019, that address permanent plant modifications issues, concerns, or processes.
24. Any internal/external self-assessments and associated corrective action documents generated in preparation for this inspection.
25. Updated Final Safety Analysis Report, Technical Specifications, Technical Specifications Bases, and Technical Requirements Manual.
26. Electrical simple one-line drawings for 4KV, 600V, 345KV, & 115KV (11 X 17 preferred).
27. Copy of Exelon's internal response to the following NRC Information Notices: 2019-01, 2019-02, 2020-02, and 2020-04.
28. Copy of FitzPatrick's internal response to MPR Associates Part 21 - Basler Electric SBSR AVR Card Solder Joints (dated 9/21/07).
29. A list of NRC Part 21 Reports, determined to be applicable to FitzPatrick, since August 1, 2019.
30. An electronic copy of the following DBDs (if applicable & available): SR 4KV, SR 600 Vac, HPCI, RCIC, RHR, ESW, SR 125 Vdc, SR 419 Vdc, SLC, EDGs, and RHRSW.

//. Information Requested to Be Available by April 25, 2022

This information should be separated for each selected component and modification, especially if provided electronically (e.g., a folder for each component and modification named after the component or modification that includes the information requested below). Items 1 through 11 are associated with the selected components and Item 12 is for the selected modifications.

1. List of corrective action documents associated with each selected component since August 1, 2019.
2. Maintenance history (e.g., corrective, preventive, and elective) associated with each selected component for the last five years. Identify frequency of preventive maintenance activities.
3. Aging Management Program documents and/or License Renewal committed inspection results applicable to each selected component.
4. List of calculations associated with each selected component, excluding data files. Pipe stress calculations are excluded from this request.
5. System Health Report (last completed) and Design Basis Document associated with each selected component, as applicable.
6. Access to or copy of vendor manual(s) for each selected component.

DOCUMENT REQUEST FOR DESIGN BASES ASSURANCE INSPECTION

7. List of open temporary modifications associated with each selected component, if applicable.
8. Trend data/graphs on the selected components' performance since August 1, 2019 (e.g., pump performance including IST, other vibration monitoring, oil sample results).
9. List of normal operating and alarm response procedures associated with each selected component.
10. Last completed tests and surveillances for each selected component performed since August 1, 2019. For those tests and surveillances performed at a periodicity of greater than three years, provide the latest test performed.
11. Schedule of surveillance testing of selected components that occur during the onsite inspection weeks.
12. For each selected modification, copies of associated documents such as modification package, engineering changes, 50.59 screening or evaluation, relevant calculations, post-modification test packages, associated corrective action documents, design drawings, and new/revised preventive maintenance requirements.