UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PENNSLYVANIA 19406-2713

February 11, 2021

Mr. Eric Carr
President and Chief Nuclear Officer
PSEG Nuclear, LLC
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK NUCLEAR GENERATING STATION - INFORMATION REQUEST FOR TRIENNIAL BASELINE DESIGN BASES ASSURANCE INSPECTION (TEAM); NOTIFICATION TO PERFORM INSPECTION 05000354/2021010

Dear Mr. Carr:

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 your Hope Creek Nuclear Generating Station. Jeffrey Kulp, 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 conversation on February 8, 2021, with Mr. Francis Possesski, Salem/Hope Creek Regulatory Compliance, 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 June 7th, 2021.
- Onsite weeks: Weeks of August 2, 2021 and August 16, 2021.

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. Frank Arner, a Region I Senior Risk Analyst, will support Jeff Kulp 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 May 17, 2021. By July 2, 2021, 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 Regional Office no later than July 26, 2021. 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 Tom Cachaza or Tina Gregory.

If there are any questions about the inspection or the material requested in the enclosure, please contact the lead inspector at 610-337-5348 or via e-mail at jak2@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,

X /RA/

Signed by: Melvin K. Gray

Mel Gray, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 05000354
License No. NPF-57

Enclosure:
Document Request for Design Bases Assurance Inspection

cc: Distribution via ListServ

SUBJECT: HOPE CREEK NUCLEAR GENERATING STATION - INFORMATION REQUEST FOR TRIENNIAL BASELINE DESIGN BASES ASSURANCE INSPECTION (TEAM); NOTIFICATION TO PERFORM INSPECTION 05000354/2021010 DATED FEBRUARY 11, 2021

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☑ SUNSI Review		☑ Non-Sensitive ☐ Sensitive		☑ Publicly Available ☐ Non-Publicly Available	
OFFICE	RI/DRS	RI/DRS	RI/DRS		
NAME	JKulp per email	FArner	MGray		
DATE	02/9/21	01/26/21	2/11/21		

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Inspection Report: 05000354/2021010

Onsite Inspection Dates: August 2, 2021 through August 6,2021; and
August 16, 2021 through August 20, 2021

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

Lead Inspector: Jeffrey Kulp, Senior Reactor Inspector
610-547-2603
jak2@nrc.gov

I. Information Requested for Selection of Components and Modifications

The following information is requested by May 17, 2021, 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. Provide any basic event mapping used to develop the ranking of components.

4. List of the top 200 cut-sets from your PRA. Provide the descriptions of the basic events in the list of cut-sets.

5. List of the top 200 cut-sets for each initiator modeled in the PRA that contributes more than 5 percent to the baseline plant core damage frequency.

6. If you have an External Events or Fire PRA Model, provide the information requested in Items 1 and 2 for external events and fire. Provide narrative description of each coded event, including fire and flood zone description.

7. List of time-critical and/or risk significant operator actions.

8. List of emergency and abnormal operating procedures.

9. 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).

10. If applicable, copy of any self-assessments and/or Quality Assurance assessments of low margin structures, systems and components (SSC), completed in the last 3 years.

11. List of available design margins in both the open and closed direction for valves in the motor-operated valve and air-operated valve programs. Identify the safety-related direction and the basis for how the margin was determined.

12. The age and capacity of the safety-related DC batteries.

13. The In-Service Testing Program (IST) 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).

14. A list of SSCs in the Maintenance Rule (a)(1) category in the last 3 years.

15. List of Root Cause Evaluations associated with SSCs failures or design issues initiated/completed in the last 4 years.

16. List of formal operability evaluations in the last 4 years.

17. List of current “operator work arounds/burdens.”

18. List of “permanent plant modifications” to SSCs that are field work complete in the last 3 years. 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.

19. List of calculation changes that have been issued for use in the last 3 years.

20. Corrective Action Program Procedure.

21. Procedures addressing the following: modifications, design changes, set point changes, equivalency evaluations or suitability analyses, commercial grade dedications, and post-modification testing.

22. List of corrective action documents (open and closed) in the last 3 years that address permanent plant modifications issues, concerns, or processes.

23. Any internal/external self-assessments and associated corrective action documents generated in preparation for this inspection.

24. Corrective Action Program documents (e.g., condition reports) associated with inspection findings from the previous NRC Inspection Procedure 71111.21 (or 71111.21 Attachment M inspection).

25. Updated Final Safety Analysis Report, Technical Specifications, Technical Specifications Bases, and Technical Requirements Manual.

26. Major one line safety-related electrical drawings (AC and DC), and Piping and Instrumentation Drawings of emergency core cooling systems (HPCI and RCIC) and the ultimate heat sink.

II. Information Requested to Be Available by July 26, 2021

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 for the last 4 years.

2. Maintenance history (e.g., corrective, preventive, and elective) associated with each selected component for the last 6 years. Identify frequency of preventive maintenance activities.

3. Aging Management Program documents 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.

6. Access to or copy of vendor manual(s) for each selected component.

7. List of open temporary modifications associated with each selected component, if applicable.

8. Trend data/graphs on the selected components' performance for the last 3 years (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 during the last 3 years. 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.