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

May 28, 2020

Mr. G. T. Powell
President and CEO
STP Nuclear Operating Company
P.O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNITS 1 AND 2 - NOTIFICATION OF NRC TRIENNIAL HEAT SINK PERFORMANCE INSPECTION (05000498/2020003 AND 05000499/2020003) AND REQUEST FOR INFORMATION

Dear Mr. Powell:

The purpose of this letter is to notify you that U.S. Nuclear Regulatory Commission (NRC) staff will conduct a triennial heat sink performance inspection at your South Texas Project Electric Generating Station, Units 1 and 2, from July 20-24, 2020. The inspection will consist of two reactor inspectors from the NRC's Region IV office for one week. The inspection will be conducted in accordance with NRC Inspection Procedure 71111, Attachment 07, "Heat Sink Performance."

Experience has shown that this inspection is resource intensive, both for the NRC inspectors and your staff. In order to minimize the impact to your onsite resources and to ensure a productive inspection, we have enclosed a request for documents needed for this inspection. Please note that the documents are requested to be provided by July 13, 2020. Also, appropriate personnel knowledgeable of heat exchangers should be available to support the inspectors at the site during the inspection.

We have discussed the schedule for this inspection activity with your licensing staff. If there are any questions about this inspection or the material requested, please contact the lead inspector, Gerond George, by telephone at 817-200-1562 or by e-mail at Gerond.George@nrc.gov.

PAPERWORK REDUCTION ACT STATEMENT

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Sincerely,

Vincent G. Gaddy

Digitally signed by Vincent G. Gaddy
Date: 2020.05.28 07:46:08 -05'00'

Vincent G. Gaddy, Chief
Engineering Branch 1
Division of Reactor Safety

Docket Nos. 05000498 and 05000499
License Nos. NPF-76 and NPF-80

Enclosure:
Triennial Heat Sink Performance
Inspection Request for Information

cc w/ encl: Distribution via LISTSERV®

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNITS 1 AND 2 - NOTIFICATION OF NRC TRIENNIAL HEAT SINK PERFORMANCE INSPECTION (05000498/2020003 AND 05000499/2020003) AND REQUEST FOR INFORMATION – May 28, 2020

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Request for Information
Triennial Heat Sink Performance Inspection
South Texas Project, Units 1 and 2

Inspection Report:	05000498/2020003 AND 05000499/2020003
Inspection Dates:	July 20–24, 2020
Inspection Procedure:	IP 71111.07, Heat Sink Performance, Triennial Review
Inspectors:	Gerond George, Senior Reactor Inspector Dustin Reinert, PhD., Reactor Inspector

Information Requested for the In-Office Preparation Week

The following information should be made available to the lead inspector, Gerond George, by July 13, 2020. Please note that additional information may be requested during the onsite portion of the inspection. It is preferable to have the information provided in electronic format; although, the information may also be sent to the Region IV office in hard copy to the attention the lead inspector. Also, we request that you categorize the documents in your response with the numbered list below. If any requested documents are large and only hard copy formats are available, please inform the inspector and provide the documentation during the first day of the onsite inspection. Additionally, requested documents such as corrective action program documents are to be for the time period from the current onsite inspection back to the previous triennial heat sink performance inspection. Requested documents such as surveillances, maintenance tasks, or thermal performance tests are to be the last three performances of those activities. If the requested documentation does not apply to the sample selection for this inspection, no response is necessary. If the information requested above will not be available or if there are questions regarding this information request, please contact the lead inspector as soon as possible.

The following heat exchangers/heat sinks have been selected for inspection:

- Unit 1, Train A Essential Cooling Water Intake Structure Ventilation
- Unit 1, Train B Main Steam Isolation Valve Cubicle Ventilation and Heating Subsystem:
- Unit 2, Train B Residual Heat Removal Heat Exchanger
- Unit 2, Train B Component Cooling Water Heat Exchanger

For all samples listed above:

1. Copies of any self-assessments or audits performed in the previous three years

2. Copies of any documents such as a Generic Letter 89-13 heat exchanger program description, heat exchanger program document, etc.

3. List of commitments (with descriptions) to the Generic Letter 89-13 program

4. Copies of system health reports and maintenance rule system notebooks

5. Copies of design bases documents, updated final safety analysis report pages, technical specification (and bases) pages, and technical requirements manual (and bases) pages

6. List of corrective action program documents (with descriptions) for the past three years

7. List of any design changes (with descriptions) implemented during the past three years

8. List of preventive maintenance tasks (with descriptions) and frequency

9. Copies of simplified piping and instrumentation drawings or diagrams and operator training manuals, if available

For the specific heat exchangers selected:

Testing Documents

10. Copies of the two most recent completed tests confirming thermal performance for those heat exchangers which are performance tested

11. Instrument uncertainties of the instruments used during testing

12. Copy of any operability determinations or other documentation of degradation associated with the heat exchangers or the systems that support the operation for the selected heat exchangers

13. Documents that show the as-found results are recorded, evaluated, and appropriately dispositioned such that the as-left condition is acceptable

Cleaning Documents

14. The cleaning and inspection maintenance schedule for each heat exchanger for the next five years

15. Copy of the document describing the inspection results for the last two cleaning and inspection activities completed on each heat exchanger

16. Cleaning procedures with acceptance criteria for the selected heat exchangers

17. Copies of the documents that verify the structural integrity of the heat exchanger, e.g., eddy current summary sheets, ultrasonic testing results, and visual inspection results

18. Copies of those documents that describe the methods taken to control water chemistry in the heat exchangers

Design Documents

19. Provide a list of calculations (with descriptions) which currently apply to each heat exchanger

20. Copies of vendor data sheets and design basis data for the selected heat exchangers

21. Copy of the calculation which establishes the limiting (maximum) design basis heat load which is required to be removed by each of these heat exchangers

22. Copy of the calculation which correlates surveillance testing results from these heat exchangers with design basis heat removal capability (e.g., basis for surveillance test acceptance criteria)

23. Copy of the calculations or documents which evaluate the potential for water hammer or excessive tube vibration in the heat exchanger or associated piping

24. Copy of the document which identifies the current number of tubes in service for each heat exchanger and the supporting calculation which establishes the maximum number of tubes which can be plugged in each heat exchanger

25. Copy of the document establishing the repair criteria (plugging limit) for degraded tubes which are identified in each heat exchanger

Inspector Contact Information:

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