

# UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 1600 E. LAMAR BLVD ARLINGTON, TX 76011-4511

January 4, 2017

Mr. Ken J. Peters, Senior Vice President and Chief Nuclear Officer Attention: Regulatory Affairs TEX Operations Company LLC P.O. Box 1002 Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT - NOTIFICATION OF NRC

TRIENNIAL HEAT SINK PERFORMANCE INSPECTION (05000445/2017001

AND 05000446/2017001) AND REQUEST FOR INFORMATION

Dear Mr. Peters:

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 Comanche Peak Nuclear Power Plant, Units 1 and 2, from January 30, 2017, through February 3, 2017. 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 71111.07, "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 on-site 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 January 23, 2017. We request that during the on-site inspection week you ensure that copies of analyses, evaluations, or documentation regarding the implementation and maintenance of your heat exchanger program are available. Of specific interest are those documents that establish that your heat exchanger program satisfies NRC regulatory requirements and conforms to applicable NRC guidance. Also, appropriate personnel knowledgeable of safety-related heat exchangers should be available to support the inspector at the site during the inspection.

We have discussed the schedule for this inspection activity with your staff and understand that our regulatory contact for this inspection will be Gary Merka of your licensing organization. If there are any questions about this inspection or the material requested, please contact the inspector, Jonathan Braisted, by telephone at 817-200-1194 or by e-mail at Jonathan.Braisted@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

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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 and Procedure," a copy of this letter and its enclosure will be 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 <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Thomas R. Farnholtz, Chief Engineering Branch 1 Division of Reactor Safety

Docket Nos. 50-445 and 50-446 License Nos. NPF-87 and NPF-89

Enclosure:

Triennial Heat Sink Performance Inspection Request for Information

cc: Electronic Distribution

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TRIENNIAL HEAT SINK PERFORMANCE INSPECTION (05000445/2017001

AND 05000446/2017001) AND REQUEST FOR INFORMATION,

DATED JANUARY 4, 2017

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#### ADAMS ACCESSION NUMBER: ML17004A177

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By: JBraisted			□ Non-Publicly Available		□ Sensitive	☐ Sensitive	
OFFICE	RI:EB1	C:EB1					
NAME	JBraisted	TFarnholtz					
SIGNATURE	/RA/	/RA/					
DATE	1/4/17	1/4/17					

# Request for Information Triennial Heat Sink Performance Inspection Comanche Peak Nuclear Power Plant

Inspection Reports: 05000445/2017001 and 05000446/2017001

Inspection Dates: January 30, 2017, through February 3, 2017

Inspection Procedure: IP 71111.07, Triennial Heat Sink Performance

Inspectors: J. Braisted, Reactor Inspector

C. Smith, Reactor Inspector

#### Information Requested for the In-Office Preparation Week

The following information should be sent to the Region IV office in hard copy or electronic format (Certrec IMS preferred), to the attention of Jonathan Braisted, by January 16, 2017. The inspector will select specific items from the information requested below and then request from your staff additional documents needed during the on-site inspection week. We also request that you categorize the documents in your response with the numbered list below. Please provide requested documentation electronically if possible. If requested documents are large and only hard copy formats are available, please inform the inspector, and provide subject documentation during the first day of the on-site inspection. If you have any questions regarding this information request, please call the lead inspector as soon as possible.

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

- Ultimate Heat Sink
- Residual Heat Removal Heat Exchanger 2-01
- Component Cooling Water Heat Exchanger 2-01
- Safety Chilled Water System Centrifugal Chiller 2-05

#### For all Generic Letter 89-13 exchangers:

- List of corrective action program documents (with a short description) associated with Generic Letter 89-13 heat exchangers, heat sinks, silting, corrosion, fouling, heat exchanger cavitation, or heat exchanger testing, in the previous three years
- 2. System health report(s) and maintenance rule system notebooks for all the Generic Letter 89-13 heat exchangers
- 3. Copy of any self-assessments done on any Generic Letter 89-13 heat exchangers in the previous three years

- 4. Copies of any heat exchanger program procedure and procedures developed to implement the recommendations of Generic Letter 89-13 (e.g., the Generic Letter 89-13 Heat Exchanger Program description)
- 5. Copies of any commitments to the Generic Letter 89-13 program
- 6. Schedule of any work to be performed on the selected samples during the inspection

#### For the specific heat exchangers selected:

#### **Testing Documents**

- 7. Copies of the two most recently completed tests confirming thermal performance for those heat exchangers which are performance tested
- 8. Instrument uncertainties of the instruments used during testing
- 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
- 10. Documents that show the as-found results are recorded, evaluated, and appropriately dispositioned such that the as-left condition is acceptable

### Cleaning Documents

- 11. The cleaning and inspection maintenance schedule for each heat exchanger for the next five years
- 12. Copy of the document describing the inspection results for the last two cleaning and inspection activities completed on each heat exchanger
- 13. Cleaning procedures with acceptance criteria for the selected heat exchangers
- 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)
- 15. Copies of those documents that describe the methods taken to control water chemistry in the heat exchangers

#### **Design Documents**

- 16. Copies of the design basis documents and applicable pages from the updated final safety analysis report and technical specifications for the selected heat exchangers
- 17. Provide a list of calculations with a description which currently apply to each heat exchanger

- 18. Copies of vendor manuals and data sheets and design basis data for the selected heat exchangers
- 19. 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
- 20. 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)
- 21. Copy of the calculations or documents which evaluate the potential for water hammer or excessive tube vibration in the heat exchanger or associated piping
- 22. 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
- 23. Copy of the document establishing the repair criteria (plugging limit) for degraded tubes which are identified in each heat exchanger

#### For the ultimate heat sink or safety-related service water system:

- 24. Dam inspections that monitor the integrity of the ultimate heat sink (if applicable)
- 25. Copies of calculations and surveillances that determine the ultimate heat sink reservoir capacity and heat transfer capability (if applicable)
- 26. Copies of any design changes performed on the ultimate heat sink or safety-related service water system
- 27. Copies of procedures for a loss of ultimate heat sink or safety-related service water system
- 28. Copies of inspections and/or maintenance related to macrofouling (silt, mussel shells, debris, etc.) and aquatic life
- 29. Copies of inspections and/or maintenance-related to preventing biotic fouling
- 30. Copies of procedures and/or test results to survey or monitor interface valves between the safety-related section of the service water system and the nonsafety-related section
- 31. Copy of the most recent service water flow balance test results, both as-found and asleft
- 32. History of any thru-wall pipe leaks on the safety-related service water system

# Inspector Contact Information:

Jonathan Braisted Reactor Inspector 817-200-1194 Jonathan.Braisted@nrc.gov Chris Smith Reactor Inspector 817-200-1095 Chris.Smith@nrc.gov

## Mailing Address:

U.S. NRC, Region IV Attn: Jonathan Braisted 1600 East Lamar Blvd. Arlington, TX 76011-4511