



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

November 8, 2018

Mr. Brad Sawatzke,  
Chief Executive Officer  
Energy Northwest  
MD 1023  
P.O. Box 968  
Richland, WA 99352

SUBJECT: COLUMBIA GENERATING STATION - NOTIFICATION OF NRC TRIENNIAL  
HEAT SINK PERFORMANCE INSPECTION (05000397/2018004) AND  
REQUEST FOR INFORMATION

Dear Mr. Sawatzke:

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 Columbia Generating Station from December 10 - 14, 2018. 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 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 December 3, 2018. We request that during the onsite 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 inspectors 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 Tracey Parmelee of your licensing organization. If there are any questions about this inspection or the material requested, please contact the lead inspector, Jonathan Braisted, by telephone at 817-200-1469 or by e-mail at [Jonathan.Braisted@nrc.gov](mailto: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 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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

*/RA/*

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

Docket No. 50-397  
License No. NPF-21

Enclosure:  
Request for Information  
Triennial Heat Sink Performance Inspection

cc: Electronic Distribution for the Columbia Generating Station

**Request for Information  
Triennial Heat Sink Performance Inspection  
Columbia Generating Station**

Inspection Report: 05000397/2018004  
Inspection Dates: December 10 – 14, 2018  
Inspection Procedure: IP 71111.07, Triennial Heat Sink Performance  
Inspectors: Jonathan Braisted, Reactor Inspector  
Chris 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, to the attention of Jonathan Braisted by December 3, 2018. The inspector will review specific items from the information requested below and then request from your staff additional documents needed during the onsite inspection week. Also, we 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 onsite 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:

- Control Room Chiller Condenser CCH-CU-1B
- Diesel Cooling Water Heat Exchanger DCW-HX-1A1
- Residual Heat Removal Heat Exchanger RHR-HX-2A
- Emergency Core Cooling System Cooling Coil B RRA-CC-3

**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

Enclosure

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

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

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

Inspector Contact Information:

Jonathan Braisted, Lead  
Reactor Inspector  
817-200-1469  
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

COLUMBIA GENERATING STATION - NOTIFICATION OF NRC TRIENNIAL HEAT SINK PERFORMANCE INSPECTION (05000397/2018004) AND REQUEST FOR INFORMATION – NOVEMBER 8, 2018

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ADAMS ACCESSION NUMBER: ML18313A094

SUNSI Review      ADAMS:       Non-Publicly Available       Non-Sensitive      Keyword:  
 By: JDB       Yes     No       Publicly Available       Sensitive      NRC-002

OFFICE	RI:EB1	RI:EB1	C:EB1	C:PBA	C:EB1	
NAME	CSmith	JBraisted	TFarnholtz	MHaire	TFarnholtz	
SIGNATURE	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>	<i>TRF</i>	
DATE	<i>11/06/2018</i>	<i>11/06/2018</i>	<i>11/06/2018</i>	<i>11/08/2018</i>	<i>11/08/2018</i>	

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