

September 12, 2007

Mr. Christopher J. Schwarz  
Site Vice President  
Entergy Nuclear Operations, Inc.  
Palisades Nuclear Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT  
NOTIFICATION OF AN NRC BIENNIAL HEAT SINK PERFORMANCE  
INSPECTION AND INFORMATION REQUEST

Dear Mr. Schwarz:

On November 26, 2007, the NRC will begin the onsite portion of the Biennial Heat Sink Performance Inspection at your Palisades Nuclear Plant. This inspection will be performed in accordance with NRC baseline Inspection Procedure (IP) 71111.07.

In order to minimize the impact that the inspection has onsite and to ensure a productive inspection, we have enclosed a request for documents needed for the inspection. The documents have been divided into two groups. The first group lists information necessary to ensure the inspector is adequately prepared for the inspection. This information should be sent to the Region III office, no later than November 15, 2007, to ensure that we may review these documents before the onsite inspection.

The second group of documents requested are those items which the inspector will review or need access to during the onsite inspection. It is important that these documents be as complete as possible to minimize the number of documents requested during the preparation week or during the onsite inspection. The information requested should envelop the time period from the onsite inspection period back to the last Heat Sink Performance Inspection.

The lead inspector for this inspection is Mr. M. Holmberg. If there are questions about the material requested, or the inspection, please call Mr. Holmberg at (630) 829-9748.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," 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 System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Ann Marie Stone, Chief  
Engineering Branch 2  
Division of Reactor Safety

Docket Nos. 50-255  
License Nos. DPR-20

Enclosure: BIENNIAL HEAT SINK INSPECTION  
Initial Document Request

cc w/encl: M. Kansler, President and Chief Executive Officer/  
Chief Nuclear Officer  
J. Herron, Senior Vice President  
Senior Vice President, Engineering and  
Technical Services  
M. Balduzzi, Senior Vice President and  
Chief Operating Officer, Regional  
Operations, NE  
O. Limpias, Vice President, Engineering  
J. Ventosa, General Manager, Engineering  
J. DeRoy, Vice President, Operations Support  
Director, NSA  
J. McCann, Director, Nuclear Safety & Licensing  
E. Harkness, Director of Oversight  
General Manager, Plant Operations  
C. Faison, Manager, Licensing  
L. Lahti, Manager, Licensing  
W. Dennis, Assistant General Counsel  
W. DiProfio  
W. Russell  
G. Randolph  
Supervisor, Covert Township  
Office of the Governor  
State Liaison Officer, State of Michigan  
Michigan Department of Environmental Quality -  
Waste and Hazardous Materials Division  
Michigan Dept of Attorney General

M. Schwarz

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Michigan Department of Environmental Quality -  
Waste and Hazardous Materials Division  
Michigan Dept of Attorney General

DOCUMENT NAME: G:\DRS\Work in Progress\Ltr 08\_\_07 Palisades Request For Information MSH.wpd

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OFFICE	RIII		RIII		RIII		RIII	
NAME	MHolmberg		AMStone					
DATE	09/10/07		09/12/07					

OFFICIAL RECORD COPY

Letter to Mr. M. Schwartz from Mr. D. E. Hills dated September 12, 2007

SUBJECT: PALISADES NUCLEAR PLANT  
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INSPECTION AND INFORMATION REQUEST

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**BIENNIAL HEAT SINK PERFORMANCE INSPECTION DOCUMENT REQUEST**  
**Initial Document Request**

**Inspection Report:** 05000255/2007007(DRS)

**Inspection Dates:** November 26 - 30, 2007

**Inspection Procedure:** IP 71111.07, Biennial "Heat Sink Performance Inspection"

**Lead Inspector:** Melvin Holmberg  
(630) 829-9748, [msh@nrc.gov](mailto:msh@nrc.gov)

***I. Information Requested for In-Office Review and Preparation***

The following information (prefer electronic format e.g., CD rom disc) is to be provided to M. Holmberg at the Region III Office (2443 Warrenville Rd., Ste. 201, Lisle, IL 60532) no later than November 15, 2007, to support the biennial "Heat Sink Performance Inspection," IP 71111.07. If some of the activities are not available because they have not been performed by your program, please note that fact. The information requested should envelop the time period from the onsite inspection period back to the last Heat Sink Performance Inspection. If nothing addressing the request was done in that time period, then the request applies to the last applicable document in the previous time period. Unless otherwise specified, all the below requests are for the selected heat exchangers (Hxs):

- component cooling water heat exchanger E-54B; and
  - emergency diesel generator 1-1 jacket water heat exchanger.
1. Copies of the two most recent completed tests confirming thermal performance for those Hxs which are performance tested.
  2. A list of corrective action program documents (with a short description) associated with Hxs, heat sinks, silting, corrosion, fouling, or heat exchanger testing, that are documented in your corrective action system (for the previous two years or since the last biennial heat sink inspection), this request is for all the Generic Letter 89-13 Hxs, and the ultimate heat sink.
  3. Copy of system description and design basis document for the Hxs under review (as applicable).
  4. Copy of any operability determinations or other documentation of degradation associated with the Hxs or the systems that support the operation of the Hxs.
  5. Copy of any self-assessment done on any of the licensee's heat exchanger programs (e.g., Generic Letter 89-13 heat exchanger program) or on the sample Hxs.

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**Initial Document Request**

6. A schedule of all inspections, cleanings, maintenance, or testing of any plant heat exchanger to be done during the onsite portion of the inspection.
7. Listing of the GL 89-13 Hxs by risk significance.
8. Maximum Service Water (SW) system inlet temperature limit that still allows full licensed power operation of the nuclear reactor. Please provide the document/calculation that supports this limit and the operating procedure that ensures this limit is not exceeded.
9. Copy of the evaluations of data for the two most recent completed tests confirming the thermal performance of each heat exchanger.
10. Provide copy of the calculation which establishes the limiting (maximum) design basis heat load which is required to be removed by each of these Hxs.
11. Copy of the calculation which correlates surveillance testing results from these Hxs with design basis heat removal capability (e.g., basis for surveillance test acceptance criteria).
12. Copy of the document describing the inspection results for the last two clean and inspection activities completed on each heat exchanger.
13. Provide a list of calculations with a description which currently apply to each Hxs.
14. System health report(s) and maintenance rule system notebooks for these Hxs.
15. List of engineering-related Operator Workarounds/Temporary Modifications for these HX(s) since the last Heat Sink Performance.
16. Please provide documentation describing any events, issues or conditions involving the degradation or loss of both the normal and/or the ultimate heat sinks, and list of any design changes made to the ultimate heat sink.

***II. Information Requested for the First Day of Inspection***

The following requests are only for the two Hxs selected as samples unless otherwise stated. We request that the following information be available to the inspector upon his arrival onsite, November 26, 2007:

1. For the two most recently completed tests confirming thermal performance of the sample Hxs, please provide documentation and procedures that identify the types, accuracy, and location of any special instrumentation used for these tests, (e.g., high accuracy ultrasonic flow instruments or temperature instruments). Include calibration records for the instruments used during these tests.

**BIENNIAL HEAT SINK PERFORMANCE INSPECTION DOCUMENT REQUEST**  
**Initial Document Request**

2. The clean and inspection maintenance schedule for each heat exchanger for the next five years.
3. Copy of the document that identifies the current number of tubes in-service for each heat exchanger and the supporting calculation which establishes the maximum number of tubes that can be plugged in each Hxs
4. Copy of the document establishing the repair criteria (plugging limit) for degraded tubes which are identified in each Hxs.
5. Copy of the design specification and heat exchanger data sheets for each Hxs.
6. Copy of the vendor manuals including component drawings for each Hxs.
7. Copy of the calculations or documents that evaluate the potential for water hammer or excessive tube vibration in the Hxs or associated piping.
8. Copy of heat exchanger performance trending data tracked for each Hxs.
9. Copies of those documents that describe the methods taken to control water chemistry in the Hxs.
10. Copies of the documents that verify the following for the ultimate heat sink:
  - Service water pump performance for each pump (e.g., design spec and USAR requirements and last two pump performance tests and calculation(s) relating pump flow achieved to minimum required for accident analysis); and
  - adequate controls in place for biotic fouling (e.g., surveillance program document(s) and latest surveillance results).
11. Copies of the documents that verify flow testing was done at maximum design flow during the last two years or since the last time it was done. Copies of the documents that verify maximum design flow testing will continue to be periodically done in the future.
12. Copies of the documents that verify the structural integrity of the Hxs, (e.g., eddy current summary sheets, ultrasonic testing results, and visual inspection results).
13. Provide the Design Basis Documents for the above listed Hxs.
14. Copies of procedures developed to implement the recommendations of GL 89-13, "Service Water System Problems Affecting Safety-Related Equipment," (e.g., the GL 89-13 Heat Exchanger Program) description.

**BIENNIAL HEAT SINK PERFORMANCE INSPECTION DOCUMENT REQUEST**  
**Initial Document Request**

15. Updated Final Safety Analysis Report pages for these Hxs and for the GL 89-13 Heat Exchanger Program.
16. Information regarding any alarms which monitor on-line performance of these Hxs.

If the information requested above will not be available, please contact Mel Holmberg as soon as possible at (630) 829-9748 or email [msh@nrc.gov](mailto:msh@nrc.gov).