



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

December 10, 2010

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
4300 Winfield Road  
Warrenville IL 60555

**SUBJECT: DRESDEN NUCLEAR POWER STATION - NOTIFICATION OF AN NRC  
TRIENNIAL HEAT SINK PERFORMANCE INSPECTION AND REQUEST  
FOR INFORMATION 05000237/2011002; 05000249/2011002**

Dear Mr. Pacilio:

On February 7, 2011, the NRC will begin the on-site portion of the Triennial Heat Sink Performance Inspection at your Dresden Nuclear Power Station. 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 on the site and to ensure a productive inspection, we have enclosed a request for documents needed for the inspection. The documents have been divided into three groups.

- The first group lists information necessary for our initial inspection scoping activities. This information should be available to the lead inspector no later than December 27, 2010. By December 31, 2010, the inspector will communicate the initial selected set of approximately 2-3 risk-significant heat exchangers.
- The second group of documents requested, are those items needed to support our in-office preparation activities. This set of documents should be available at the Regional Office no later than January 31, 2011. This information should be separated by component, especially if provided electronically (e.g., folder with component name that includes calculations, condition reports, maintenance history, etc.). During the in-office preparation activities, the inspector may identify additional information needed to support the inspection.
- The last group includes the additional information above, as well as plant specific reference material. This information should be available to the inspector on February 7, 2011. It is also requested that corrective action documents and/or questions developed during the inspection be provided to the inspector as the documents are generated.

It is important that these documents be as complete as possible, in order to minimize the number of documents requested during the preparation week or during the on-site inspection. If no activities were accomplished associated with a specific request, then provide a statement indicating that the request is not applicable.

The lead inspector for this inspection is Caroline Tilton. If there are questions about the material requested, or the inspection, please call Mrs. Tilton at (630) 829-9718. Please send the information to the following e-mail address [caroline.tilton@nrc.gov](mailto:caroline.tilton@nrc.gov). A hard-copy with the required information is also an acceptable option.

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.

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 (PARS) component of NRC's document 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. 50-237; 50-249  
License Nos. DPR-25

Enclosures: Triennial Heat Sink Inspection Document Request

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## TRIENNIAL HEAT SINK INSPECTION DOCUMENT REQUEST

**Inspection Report:** 05000237/2011002; 05000249/2011002

**Inspection Dates:** February 7 – 11, 2011

**Inspection Procedure:** IP 71111.07, Triennial “Heat Sink Performance Inspection”

**Inspectors:** Caroline Tilton (Lead)  
(630) 829-9718  
[caroline.tilton@nrc.gov](mailto:caroline.tilton@nrc.gov)

Nestor Feliz Adorno  
(630) 829-9739  
[nestor.feliz-adorno@nrc.gov](mailto:nestor.feliz-adorno@nrc.gov)

### ***I. Information Requested By December 27, 2010***

1. List of the Generic Letter (GL) 89-13, “Service Water System Problems Affecting Safety-Related Equipment,” heat exchangers in order of risk-significance.
2. Copy of heat exchanger performance trending data tracked for each GL 89-13 heat exchanger.
3. List of corrective action program documents (with a short description) associated with GL 89-13 heat exchangers, heat sinks, silting, corrosion, fouling, or heat exchanger testing, for the previous two years or since the last Triennial Heat Sink Inspection.
4. Copy of any self-assessment done on any of GL 89-13 heat exchangers.
5. System health report(s) and maintenance rule system notebooks for all the GL 89-13 heat exchangers.

### ***II. Information Requested By January 31, 2011***

1. For the specific heat exchangers selected:
  - a. Copies of the two most recent completed tests confirming thermal performance for those heat exchangers, which are performance tested;
  - b. Copy of system description and design basis document for the heat exchangers (as applicable);
  - c. 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;

## TRIENNIAL HEAT SINK INSPECTION DOCUMENT REQUEST

- d. Copy of the Updated Final Safety Analysis Report (UFSAR) sections applicable for each heat exchanger;
  - e. Provide a list of calculations with a description which currently apply to each heat exchanger; and
  - f. A schedule of all inspections, cleanings, maintenance, or testing of any plant heat exchanger to be done during the on-site portion of the inspection.
2. Copy of the Updated Final Safety Analysis Report (UFSAR) sections for the Ultimate Heat Sink.
  3. Copies of procedures developed to implement the recommendations of GL 89-13, e.g., the GL 89-13 Heat Exchanger Program description.
  4. Updated Final Safety Analysis Report pages for the GL 89-13 Heat Exchanger Program.
  5. Maximum Cooling Water system inlet temperature limit that still allows full licensed power operation of the nuclear reactor. Please provide the document that states this limit (e.g., USAR or TRM) and the operating procedure that ensures this limit is not exceeded.

### ***III. Information Requested to be Available on First Day of Inspection, February 7, 2011***

1. For the specific heat exchangers selected:
  - a. Provide the Design Basis Documents for the selected heat exchangers;
  - b. Copy of the design specification and heat exchanger data sheets for each heat exchanger;
  - c. Copy of the vendor manuals including component drawings for each heat exchanger;
  - d. 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;
  - e. 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);
  - f. Copy of the calculations or documents which evaluate the potential for water hammer or excessive tube vibration in the heat exchanger or associated piping;

## TRIENNIAL HEAT SINK INSPECTION DOCUMENT REQUEST

- g. List of engineering related Operator Workarounds/Temporary Modifications for these heat exchangers since the last Heat Sink Performance;
  - h. Copy of the evaluations of data for the two most recent completed tests confirming the thermal performance of each heat exchanger;
  - i. Documentation and procedures that identify the types, accuracy, and location of any special instrumentation used for the two most recently completed thermal performance tests for the heat exchangers (e.g., high accuracy ultrasonic flow instruments or temperature instruments). Include calibration records for the instruments used during these tests;
  - j. Copies of those documents that describe the methods taken to control water chemistry in the heat exchangers;
  - k. 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;
  - l. The cleaning and inspection maintenance schedule for each heat exchanger for the next five years;
  - m. Copy of the document describing the inspection results for the last two clean and inspection activities completed on each heat exchanger;
  - n. 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;
  - o. Copy of the document establishing the repair criteria (plugging limit) for degraded tubes, which are identified in each heat exchanger; and
  - p. Information regarding any alarms which monitor on-line performance.
2. For the ultimate heat sink:
- a. Copies of any design changes performed on the system;
  - b. Copies of inspections and/or maintenance related to macro-fouling (silt, dead mussel shells, debris, etc.), and aquatic life such as fish, algae, grass, or kelp;
  - c. Copies of inspections and/or maintenance related to preventing biotic fouling and concrete degradation;
  - d. History of any thru wall pipe leak on the system; and
  - e. Copies of UT inspection results for the most susceptible locations.

If the information requested above will not be available, please contact the lead inspector.

M. Pacilio

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It is important that these documents be as complete as possible, in order to minimize the number of documents requested during the preparation week or during the on-site inspection. If no activities were accomplished associated with a specific request, then provide a statement indicating that the request is not applicable.

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Sincerely,  
/RA/

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

Docket Nos. 50-237; 50-249  
License Nos. DPR-25

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Letter to Mr. Michael Pacilio from Ms. Ann Marie Stone dated December 10, 2010.

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