

January 3, 2005

Mr. Christopher M. Crane  
President and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2  
NOTIFICATION OF AN NRC BIENNIAL HEAT SINK PERFORMANCE  
INSPECTION AND INFORMATION REQUEST

Dear Mr. Crane:

On January 31, 2005, the NRC will begin the Biennial Heat Sink Performance Inspection at your Braidwood Station, Units 1 and 2. This inspection will be performed in accordance with NRC baseline inspection procedure 71111.07. The systems selected for detailed review during this baseline inspection are the 1B and 2B Auxiliary Feedwater Motor Driven Pump Lube Oil Cooler and Cubicle Coolers, and the 1B and 2B Auxiliary Feedwater Diesel Driven Pump Lube Oil Cooler, Gear, Fan and Engine Oil Coolers, and Cubicle Coolers.

We have enclosed requests for the documents needed for this inspection.

This information can be sent to the following e-mail address: [cea4@nrc.gov](mailto:cea4@nrc.gov). Please send the information when it becomes available, so that we may start our review of these documents. A CD with the required information is also an acceptable option.

The lead inspector for this inspection is Ms. Caroline Acosta Acevedo. If there are questions about the material requested, or the inspection, please call Ms. Acosta Acevedo at (630) 829-9718.

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

C. Crane

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document system (ADAMS). ADAMS is 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  
Systems Engineering Branch  
Division of Reactor Safety

Docket Nos. 50-456; 50-457  
License Nos. NPF-72; NPF-77

Enclosure: BIENNIAL HEAT SINK INSPECTION  
DOCUMENT REQUEST

cc w/encl: Site Vice President - Braidwood Station  
Plant Manager - Braidwood Station  
Regulatory Assurance Manager - Braidwood Station  
Chief Operating Officer  
Senior Vice President - Nuclear Services  
Vice President - Operations Support  
Vice President - Licensing and Regulatory Affairs  
Director Licensing  
Manager Licensing - Braidwood and Byron  
Senior Counsel, Nuclear, Mid-West Regional  
Operating Group  
Document Control Desk - Licensing  
Assistant Attorney General  
Illinois Department of Nuclear Safety  
State Liaison Officer  
Chairman, Illinois Commerce Commission

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Ann Marie Stone, Chief  
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Senior Vice President - Nuclear Services  
Vice President - Operations Support  
Vice President - Licensing and Regulatory Affairs  
Director Licensing  
Manager Licensing - Braidwood and Byron  
Senior Counsel, Nuclear, Mid-West Regional  
Operating Group  
Document Control Desk - Licensing  
Assistant Attorney General  
Illinois Department of Nuclear Safety  
State Liaison Officer  
Chairman, Illinois Commerce Commission

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## BIENNIAL HEAT SINK INSPECTION DOCUMENT REQUEST

The systems selected for detailed review during this baseline inspection are the 1B and 2B Auxiliary Feedwater Motor Driven Pump Lube Oil Cooler and Cubicle Coolers, and the 1B and 2B Auxiliary Feedwater Diesel Driven Pump Lube Oil Cooler, Gear, Fan and Engine Oil Coolers, and Cubicle Coolers.

1. Copy of the two most recently completed tests confirming thermal performance of each HX. Include 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.
2. Copy of the evaluations of data for the two most recent completed tests confirming the thermal performance of each HX.
3. Copy of the calculation which establishes the limiting (maximum) design basis heat load which is required to be removed by each of these HXs.
4. 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).
5. The clean and inspection maintenance schedule for each HX, including justifications for the schedule if it has been increased since the Generic Letter (GL) 89-13 program was implemented.
6. For the last two clean and inspection activities completed on each HX, provide a copy of the document describing the inspection results.
7. Provide a 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 HX.
8. Copies of the procedures used to monitor or inspect heat exchanger performance.
9. Copy of the design specification and heat exchanger data sheets for each HX.
10. Copy of the vendor/component drawing for each HX.
11. Provide a list of issues with a summary of your corrective action system associated with these HXs in the past three years.
12. Provide a list of calculations with a description which currently apply to each HX.
13. Provide HX performance trending data tracked for each HX.
14. Provide the Design Basis Documents for the above listed HXs.

15. System health report(s) and maintenance rule system notebooks for these HX(s).
16. Copies of procedures developed to implement the recommendations of GL 89-13, "Service Water System Problems Affecting Safety-Related Equipment."
17. List of operability evaluations currently relied upon and those that were previously (past two years) relied upon for operability.
18. List of engineering-related Operator Workarounds/Temporary Modifications for these HX(s).
19. Copy of HX self-assessments and audits for HX(s).
20. Updated Final Safety Analysis Report pages for these HX(s)
21. Information regarding any alarms which monitor on-line performance of these HXs.
22. Copy of calculations which evaluate the potential for water hammer or excessive tube vibration in these HXs.
23. Copy of the procedures which describe the methods taken to control water chemistry in the service water systems, including any provisions for controlling biotic fouling.
24. Copy of the last completed surveillance procedure which verifies that the service water systems are free from clogging due to macrofouling (i.e., silt, dead mussel shells, debris, etc.).
25. Copy of the procedure and last test results which show that the overall functionality of service water systems in relation to minimum wall thickness corrosion or erosion, especially in low flow areas.
26. Copies of procedures which address ultimate heat sink functionality during adverse weather conditions, such as extreme cold or hot temperatures, or during incursion of seasonal aquatic material.