



Commonwealth Edison
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Address Reply to: Post Office Box 767
Chicago, Illinois 60690

Dmb

August 23, 1982

Mr. James G. Keppler, Regional Administrator
Directorate of Inspection and
Enforcement - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Dresden Station Units 1, 2, and 3
Supplemental Response to IE Bulletin
No. 81-03 concerning Flow Blockage
Due to Corbicula and Mytilus
NRC Docket Nos. 50-10/237/249

Reference (a): T. J. Rausch letter to J. G. Keppler
dated May 26, 1982

Dear Mr. Keppler:

Reference (a) provided the requested 45 day response to the subject Bulletin No. 81-03 for our Dresden Station. The Enclosure to this letter is being provided as a supplement to that response.

This supplemental report has been prepared to address the comments and concerns of Mr. Peter R. Wohld of your office, who has audited our Reference (a) Dresden Station response.

To the best of my knowledge and belief, the statements contained in the Enclosure are true and correct. In some respects these statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

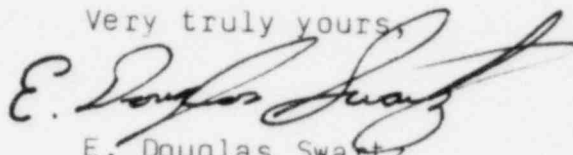
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Please address any further questions that you or your staff may have concerning this matter to this office.

Very truly yours,



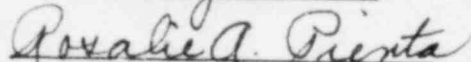
E. Douglas Swartz
Nuclear Licensing Administrator

Enclosure

cc: NRC-Director,
Office of Inspection and Enforcement
Washington, DC 20555

Peter R. Wohld - RIII
RIII Inspector - Dresden

SUBSCRIBED and SWORN to
before me this 23rd day
of August, 1982


Notary Public

ENCLOSURE

COMMONWEALTH EDISON COMPANY

DRESDEN STATION UNITS 1, 2, and 3

Supplemental Response to IE Bulletin No. 81-03
"Flow Blockage of Cooling Water to Safety System
Components by Corbicula sp. (Asiatic Clam) and
Mytilus sp. (Mussel)"

The presence of Asiatic Clams in the source waters of Dresden Station has been known for some time. The last positive determination of their existence was made by our Environmental Affairs Department on March 25, 1981, during a barrier net survey at the station. They observed Asiatic Clams (*Corbicula* Species) in the Unit 2/3 cribhouse between the bar rack and the traveling screens. Live specimens of all size ranges, as well as many dead specimens were discovered. These findings indicate that the populations are actively reproducing and, in fact, do present the potential fouling and plugging problems occurring at other generating stations.

The service water heat exchanger program that will be initiated after the next Unit 2 refueling outage in May, 1983 will only monitor active heat exchangers. Heat exchangers that are in service for very short periods of time have not shown significant clam infestation. The heat exchangers that will be monitored and the type of monitoring being initiated is indicated on Attachment A. The program will be incorporated as part of the Technical Staff System Checklist Program with the exception of the main condensers which are already monitored and maintained by other programs. The checklist program presently records other pertinent data important for safe and efficient plant performance on a periodic basis.

All intake water used at Dresden is chemically treated regularly. This chemical treatment is effective in overcoming the problem of slime and bacterial growth on heat exchanger tube walls as well as killing clam larvae. This program has been in effect for many years to control heat exchanger cleanliness.

The fire protection system at Dresden uses service water. However, this system contains larger diameter pipes and no heat exchangers, thus reducing the probability of flow blockage. The Dresden fire protection procedures include inspection, flushing, and operability checks that are performed on an annual basis. From past experience with this system, the present program is adequate in preventing system degradation due to clam infestation.

The program for the X-area Room Coolers and the HPCI Emergency Room Coolers is to trend room temperature. At the time when this program is initiated, these room coolers on both units will have the capability for flow reversal. When a room temperature increase is noted over time, flow will be reversed through the coolers to effectively remove any blockage due to clam infestation.

Heat exchangers without flow reversal capability are being equipped with calibrated pressure gages at the service water inlets and outlets. Then by trending pressure and temperature of these heat exchangers at the inlets and outlets over a period of time, degradation in heat exchanger performance will be realized and a cleaning schedule developed accordingly.

Two programs that are in effect to ensure that the main condensers are operating cleanly and efficiently are the flow reversal and condenser performance program. The main condensers have the capability for flow reversal. Condenser flow is reversed once a week to avoid condenser fouling. The condenser performance program is also performed once a week. This program trends many parameters that are then used to calculate a condenser cleanliness factor and condenser efficiency. It also allows us to calculate a value of condenser back pressure to compare with our actual operating value. The main condensers are visually inspected every refueling outage. Clams are removed from the condenser during this period. In the past few years, the inspections have shown the condensers to be relatively clean and in very good condition. Our present programs for the main condensers will continue.

The heat exchanger program will continue until sufficient data has been accumulated to accurately represent trends in heat exchanger performance degradation. Heat exchanger cleaning schedules will be determined based on this trended data. Data will be taken on a weekly basis. In the future, continuing efforts will be made to discover more effective clam control methods. Attachments B and C show the current status of modifications and installations needed to implement the program. A service water heat exchanger program for Unit 1 will be addressed prior to unit startup.

Attachment A

Components Incorporated In The Heat Exchanger Monitoring Program

Components to be Monitored by Inlet and
Outlet Temperature and Pressure Trending

- 2 & 3 Offgas Glycol Chillers
- 2/3 Control Room Air Conditioning
- 2/3 Auxiliary Electric Room Air Conditioning
- 2 & 3 Turbine Oil Coolers
- 2 & 3 Turbine Building Closed Cooling Water
- 2 & 3 Reactor Building Closed Cooling Water
- 2 & 3 Main Generator Hydrogen Coolers
- 2 & 3 Main Generator Stator Coolers
- 2 & 3 Recirc. MG Set Oil Coolers

Components to be Monitored by
Room Temperature Trending

- 2 & 3 X-Area Room Coolers
- 2 & 3 HPCI Emergency Room Cooler

Attachment B

Current Status of Calibrated Pressure Gauge Installation

Component	Inlet Pressure Gauge Installed	Outlet Pressure Gauge Installed
Offgas Glycol Chiller		
2A-5416	*	*
2B-5412	*	*
3A-5412	*	*
3B-5412	*	*
Control Room Air Conditioning		
2/3-A-5732	X	X
2/3-B-5732	X	X
Auxiliary Electric Room Air Conditioning		
2/3-3935-700	X	*
Turbine Oil Coolers		
2A-5612	*	*
2B-5612	*	*
2A-5612	*	*
3B-5612	*	*
Turbine Building Closed Cooling Water		
2A-3802	X	X
2B-3802	X	X
3A-3802	X	X
3B-3802	X	X
Reactor Building Closed Cooling Water		
2A-3702	*	*
2B-3702	*	*
2/3-3702	*	*
3A-3702	*	*
3B-3702	*	*

Note: "*"Denotes work request initiated for calibrated pressure gauge installation. "X"Denotes calibrated pressure gauge presently installed.

Current Status of Calibrated Pressure Gauge Installation - (Cont'd)

<u>Component</u>	<u>Inlet Pressure Gauge Installed</u>	<u>Outlet Pressure Gauge Installed</u>
Main Generator Hydrogen Coolers		
2A-5301	X	X
2B-5301	X	X
2C-5301	X	X
2D-5301	X	X
3A-5301	X	X
3B-5301	*	X
3C-5301	*	X
3D-5301	X	X
Main Generator Stator Coolers		
2A-7402	X	X
2B-7402	X	X
3A-5615	X	X
3B-5615	X	X
Recirc. MG Set Oil Coolers		
2A-203-51	X	X
2B-203-51	X	X
2C-203-51	X	X
2D-203-51	X	X
3A-203-51	X	X
3B-203-51	X	X
3C-203-51	X	X
3D-203-51	X	X

Note: "*"Denotes work request initiated for calibrated pressure gauge installation. "X"Denotes calibrated pressure gauge presently installed.

Attachment C

Current Status of Flow Reversal Installations

Component	Status
Unit 3-X-Area Room Coolers	Flow reversal capability installed and operable
3-5758-A	
3-5758-B	
3-5758-C	
3-5758-E	
3-5758-F	
Unit 3-HPCI Room Cooler 3-5747	
Unit 2-X-Area Room Coolers	Flow reversal capability scheduled to be installed during next Unit 2 Refueling outage in January, 1983.
2-5758-A	
2-5758-B	
2-5758-C	
2-5758-D	
2-5758-E	
2-5758-F	
Unit 2-HPCI Room Cooler 2-5747	