

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

MAY 29 10:44

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

May 22, 1981

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: RII:JPO
McGuire Nuclear Station
Docket Nos. 50-369 and 50-370



Dear Mr. O'Reilly:

Please find attached a response to IE Bulletin 81-03 for the McGuire Nuclear Station.

Very truly yours,

William O. Parker, Jr.
William O. Parker, Jr.

RWO:pw
Attachment

cc: Director
Office of Inspection and Enforcement
Washington, D. C. 20555

Ms. M. J. Graham
NRC - Resident Inspector
McGuire Nuclear Station

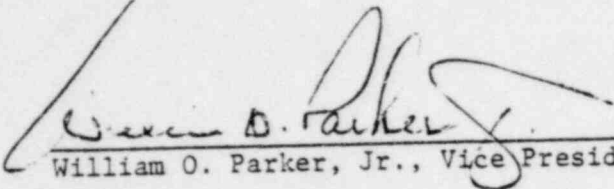
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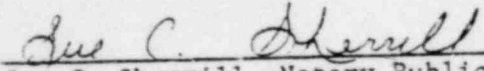
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Mr. James P. O'Reilly, Director
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WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company, that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this response to IE Bulletin 81-03 and that all statements and matters set forth therein are true and correct to the best of his knowledge.


William O. Parker, Jr., Vice President

Subscribed and sworn to before me this 22th day of May, 1981


Sue C. Sherrill, Notary Public
Notarial Seal

My Commission Expires:

September 20, 1984

McGUIRE NUCLEAR STATION
Response to I.E. Bulletin 81-03

1. Corbicula sp. (clams) were first discovered at McGuire during preoperational testing of the Fire Protection System (RF) in August of 1978. No component fouling has occurred as a result of clam infestation. To date clams have been found only in the RF system and in the Stand-by Nuclear Service Water Pond.

The Nuclear Service Water System (RN) is the only safety related system utilizing raw water.

2. Visual Inspections:

- a. RF System: Since the presence of clams in this system is acknowledged no visual examinations were performed. Control measures being used are detailed in Section 4 of this Response.

- b. RN System: No formal program presently exists to inspect the RN system for the presence of clams. However, station personnel are aware of the potential for intrusion into this system by clams and routinely look for clams during normal maintenance activities. In the past nine months the RN system has been opened approximately twenty times without evidence of clams being found. Components worked on included:

- (1) The component cooling pump motor cooler.
- (2) A 1.55 inch bore orifice on the supply line to the containment sump pump air cooler.
- (3) Two 1 inch valves at the inlets of the component cooling pump motor coolers.
- (4) A 1.5 inch and a 1 inch valve at the outlet of a component cooling pump motor cooler.
- (5) An 8 inch valve at the outlet of the Diesel Generator cooling water heat exchanger.
- (6) A 1 inch drain valve off of the 36 inch essential header.

3. Flow Tests:

- a. RF System: Since the presence of clams in this system is acknowledged no special flow tests were performed. Control measures being used are detailed in Section 4 of this Response.

- b. RN System: Performance Tests are conducted monthly to insure adequate flow to the Nuclear Service Water Pumps. No evidence of flow restriction has been recorded.

4. Methods of Detection and Prevention:

- a. RF System: By May 22, 1981, a high velocity flush will be performed to rid the system of all present clams. The system will then be flushed with chlorinated water. After this initial flush all unchlorinated water entering the RF system (basically a dead water system) will be flushed and then replaced with chlorinated water.

Duplex strainers are located on the suction of the Jockey Pumps to prevent adult (shelled) clams from entering the system. Sufficient chlorine will be added to the system at the suction of the Jockey Pumps to maintain a chlorine residual lethal to young (non-shelled) clams.

- b. RN System: Due to the current absence of clams, no control measures are necessary at this time. Station personnel will continue to monitor this system for evidence of clams during normal maintenance activities.

The intake pumps are filtered with a 3/16 inch mesh strainer and RN System design allows for high velocity flush and backflushing should it prove necessary.

- 5. Results from the monitoring of the Asiatic clam (Corbicula) population in the McGuire Standby Nuclear Service Water Pond (SNSW)

On February 17, 1981, samples were taken from the McGuire SNSW pond to determine if the population of the Asiatic clam, Corbicula, has increased since the first collection of Corbicula in the pond in 1979. A total of 26 samples were collected from five locations, four shoreline locations, and one location near the center of the pond. (Location descriptions as in memo of February 28, 1979.) Samples were taken using a modified Petersen grab at 3 depths (1.0, 2.0, and 3.0 m) at each shoreline location and 5.0 m at the fifth location (near center of pond). Two grab samples were taken at each depth at all locations and processed using a 500 μ m mesh screen. Four sweepnet samples were taken at the upper part of the pond on March 11, 1981.

A total of 25 pelecypods were collected in the grab samples, in which 6 were identified as Corbicula and 19 as immature Pelecypoda. The Corbicula ranged in length from 0.5 to 1.0 cm. Approximately 150 immature Pelecypods were collected in the four sweepnet samples and were brought back to the lab for rearing to adults for proper identification.

The components and systems affected and the corrective and preventive actions are as stated in Section 4.