

DUKE POWER COMPANY

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July 17, 1985

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

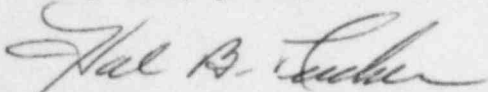
Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Subject: McGuire Nuclear Station
Docket Nos. 50-369 and 50-370
Detection and Control of Biofouling

Please find attached Duke Power Company's response to a May 6, 1985 letter from Thomas M. Novak, NRC/ONRR, to H. B. Tucker, Duke Power Company, which concerns detection and control of biofouling at McGuire Nuclear Station.

Please advise us if there are any further questions regarding this matter.

Very truly yours,



Hal B. Tucker

WHM/mjf

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. W. T. Orders
NRC Resident Inspector
McGuire Nuclear Station

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Additional Information Regarding
Biofouling Surveillance and Control Methods at McGuire

1. Discuss the surveillance methods that are being used to detect the presence of asiatic clams and/or mussels in the plant water supplies, fire protection systems, and systems which provide cooling for safety related systems.

RESPONSE

Station personnel are aware of the potential for clam infestation in the raw water systems. Accordingly, heat exchangers in these systems are inspected for evidence of clams whenever they are opened for maintenance. Since Duke's last response on this IE Bulletin in February 1983, it is estimated that at least forty inspections of raw water heat exchangers have occurred. In none of these inspections has there been any evidence of the presence of clams.

The previous Bulletin response stated that McGuire would monitor two heat exchangers in the Nuclear Service Water System for pressure drop at a constant flow. An increase in pressure drop could be indicative of fouling and would signal the need for further investigation. This monitoring has been performed on a quarterly basis since 1983 and has revealed no problems.

2. Discuss the methods being used to control asiatic clams and/or mussels in the plant water supplies and systems in question 1. Discuss the consideration given to systems required to mitigate transients and/or accidents where those systems are not used during normal operation. Discuss the consideration given to protect heat transfer surfaces from clam and/or mussel infestation.

RESPONSE

In the safety-related Nuclear Service Water System, there are several alternative sources of water. The normally used source is the Low Level Intake, which provides water at less than 60 degrees F. This temperature is below that necessary for clam spawning, therefore the possibility of introducing clams into the system is minimal.

As described in the previous response to Bulletin 81-03, the Fire Protection System has a chlorine addition system which chlorinates any makeup water to a level sufficient to preclude the introduction of clams.

RESPONSE (continued)

Raw cooling water for balance-of-plant components does have a water source which is above 60 degrees F during a substantial part of the year. It should be emphasized that these components do not serve a safety-related function. It is significant to note, however, that even with this source of water, no evidence of clams has been found during heat exchanger inspections. During a recent inspection of the main turbine condensers, a total of three (3) clams were found.

With regard to the questions on systems which are not used during normal operation, and protection of heat transfer surfaces from clams, it is our position that no additional special precautions are necessary at this time. Inspections and surveillance have shown no evidence of an infestation problem, and we feel that our program is sufficient to detect any such problem in the future.