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Nebraska Public Power District

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May 29, 1981

Mr. Karl V. Seyfrit, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Subject: IE Bulletin No. 81-03
"Flow Blockage of Cooling Water System Components by Corbicula sp. and Mytilus sp."

Reference: 1) The Evaluation of Thermal Effects in the Missouri River Near Cooper Nuclear Station, January-December 1979, dated April 4, 1980

Dear Mr. Seyfrit:

The following is Nebraska Public Power District's response to the action items described in the subject bulletin.

Item 1

Determine whether Corbicula sp. or Mytilus sp. is present in the vicinity of the station in either the source or receiving water body.

Response

Environmental monitoring through December 1979 indicated the presence of only one type of clam, Spharium sp., in the vicinity of Cooper Nuclear Station. The District's monitoring program was discontinued following issuance of License Amendment No. 54 dated March 9, 1979.

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Item 2

If it is unknown whether either of these species is present in the local environment, determine whether fire protection or safety-related systems that directly circulate water from the station source are fouled by clams or mussels or debris consisting of their shells.

Response

We have conducted many inspections in these systems since 1974 and have never found any evidence of plugging from clams or mussels or debris consisting of their shells. Recent inspections include a main condenser inspection during the fall of 1980, service water strainer inspections in February 1981, RHR service water strainer inspection in April 1981, and another main condenser inspection in May 1981.

Because of other debris and sand in the Missouri River, we will continue to maintain a program of surveillance on these systems. We will look for evidence of the Corbicula sp.

Item 3

Not applicable.

Item 4

Describe methods in use or planned for preventing and detecting future flow blockage or degradation due to clams or mussels or shell debris.

Response

The potential for intrusion of the organisms into plant systems under any conditions can only be measured by the actual presence of the Corbicula sp. in the waters adjacent to Cooper Nuclear Station. Variations in water level and velocities seem to have very little or no affect on the migration, reproduction, or habitational characteristics of the Corbicula sp.

Therefore, the District intends to monitor certain heat exchangers in an effort to determine the presence of the subject organisms. The next inspection is planned during the fall, 1981, outage. The actual prevention of the Corbicula sp. appears to be, at best, poor. Nebraska Public Power District will continue to monitor other efforts to control the introduction and consequences of the Corbicula sp. into power generating facilities. If the organism's introduction into the Missouri River, near Cooper Station, is suspected, the District will develop a program of prevention and/or corrective action based upon the latest technologies and the cost-effectiveness of each available method.

Item 5

Describe the applicable portions of the environmental monitoring program including the last sample date and results.

Response

The last Missouri River sample was obtained October 3, 1979, with negative findings in regards to clams. The only sample date on which clams were discovered was August 9, 1979. As indicated above, this organism was identified as Spharium sp. The finding is as described in Table C.1, reference 1, a copy of which is enclosed.

If you have any additional questions concerning this matter, please contact me.

Sincerely,

Jay M. Pilant
Director of Licensing
and Quality Assurance

JMP:KCW:cmk

Enclosure