



NIAGARA MOHAWK POWER CORPORATION / 300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202 / TELEPHONE (315) 474-1511



July 9, 1981

Office of Inspection and Enforcement  
Region I  
Attention: Mr. Boyce H. Grier, Director  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dear Mr. Grier:

Re: Nine Mile Point Unit 2  
Docket No. 50-410

Attached is the information requested in your I.E. Bulletin 81-03 dated April 10, 1981 for Nine Mile Point Unit 2. Per your request, approximately 235 man-hours were required in the review and preparation of the information required by this Bulletin.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

Gerald K. Rhode  
Vice President  
System Project Management

PEF:ja  
xc: Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

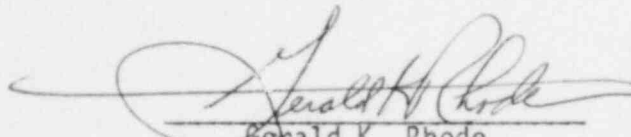
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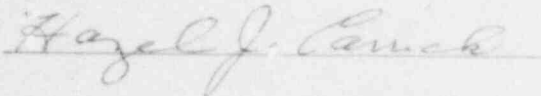
ss:

GERALD K. RHODE, being duly sworn says:

I am Vice President, System Project Management of Niagara Mohawk Power Corporation. I have read the foregoing letter and attachment, and the information contained in the letter and attachment is true to the best of my knowledge, information and belief.

  
Gerald K. Rhode

Sworn to before me on  
this 9<sup>th</sup> day of July, 1981



HAZEL J. CARRICK  
Notary Public in the State of New York  
Qualified in Onon. Co. No. 424460  
My Commission Expires March 30, 1982

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT UNIT 2

DOCKET NO. 50-410

Response to I. E. Bulletin 81-03  
Flow Blockage of Cooling Water  
to Safety System Components by Corbicula sp  
(Asiatic clam) and Mytilus sp (mussel)

ACTIONS TO BE TAKEN BY CONSTRUCTION PERMIT HOLDER

Request:

1. Determine whether Corbicula sp. or Mytilus sp. is present in the vicinity of the station by completing items 1 and 4 above that apply to operating licenses (OL).

Response

1. a. Mytilus sp.

The mussel (Mytilus sp.) is a marine and estuarine species found in salt water environments only. Therefore, it would not be found in the Great Lakes<sup>(1)</sup>.

- b. Corbicula sp.

Recent benthic studies have not produced evidence for the presence of Corbicula sp. (Asiatic clam) in Lake Ontario near the Unit 2 site<sup>(2)</sup>. Based on a review of existing literature, the northern limit of this species in the Atlantic drainage is the Delaware River between Philadelphia, Pennsylvania, and Trenton, New Jersey<sup>(3)</sup>. The northern limit in the Mississippi drainage is the Upper Mississippi River at Lansing, Iowa<sup>(4)</sup>. The presence of Corbicula sp. in the Great Lakes has not been reported in the literature. Conversations with regional experts indicate that the species is not in this area<sup>(5)</sup>.

In addition to the above, an ecological assessment was performed on May 9, 1981 to determine if Corbicula sp. was present in the source cooling water to be used for Nine Mile Point Unit 2. Mytilus sp. was not reviewed since this genus is associated with salt water environments. This assessment entailed benthic surveys to the east and west of the Site and near the inlet and discharge structures and in the inlet forebay of Unit 1. The results indicate that there is no evidence of Corbicula sp. in the Unit 2 source cooling water. Therefore, it does not pose a biofouling problem.

Request:

2. If these organisms are present in the local environment and potentially affected systems have been filled from the station source or receiving water body, determine whether infestation has occurred.

Response

Not applicable.

Request:

3. Describe the actions taken in items 1 and 2 above for construction permit holders and include the following information:
  - a. Applicable portions of the environmental monitoring program including last sample date and results.
  - b. Components and systems affected.
  - c. Extent of fouling if any existed.
  - d. How and when fouling was discovered.
  - e. Corrective and preventive actions.

Response

- 3a. See the response to Item 1 above.
- 3b, c, d & e. Not applicable.

Request:

4. Describe methods either in use or planned (including implementation date) for preventing and detecting future flow blockage or degradation due to clams or mussels or shell debris. Include the following information in this description:
  - a. Evaluation of the potential for intrusion of the organisms into these systems due to low water level and high velocities in the intake structure expected during worst case conditions.
  - b. Evaluation of effectiveness of prevention and detection methods used in the past or present or planned for future use.

Response

Corbicula sp. is not expected to be present at Unit 2. However, if it is ever reported in the Nine Mile Point area, or it is found during the inspection of components or systems vulnerable to fouling, control measures will be instituted. Components and systems filled with raw lake water will be monitored to detect any flow restrictions.

There is a low probability of intrusion of the organisms into vulnerable plant systems, due to low water level and high velocities in the intake structure. Lake Ontario has a history of very slight water level fluctuations. Therefore, it is unlikely that a low water level condition will exist in the future. If substantial flow loss is noted, major components will be checked during planned plant outages for any possible entrapment.

The Unit 2 service water system is designed with the capability to test every component for flow blockage. Flow elements have been provided on the major components cooled by service water. All other components have appropriate pressure test connections to measure the differential pressure across them. Any flow blockage in the Unit 2 service water system should be detected before the system efficiency is reduced significantly.

#### REFERENCES

1. Goener, E. L. Guide to Identification of Marine and Estuarine Invertebrates: Cape Hatteras to the Bay of Fundy. Wiley-Interscience, New York. 1971, 693 p.
2. Texas Instruments Incorporated, Ecological Services. 1979 Nine Mile Point Aquatic Ecology Studies. Prepared for Niagara Mohawk Power Corporation and The Power Authority of the State of New York. 1980, 173 p.
3. Fuller, S. L. and Powell, Jr. E. E. Range extensions of Corbicula maneleus (Philippi) in the Atlantic drainage of the United States. Nautilus 87(2):5, 1973.
4. Eckblad, J. E. The Asian clam Corbicula in the Upper Mississippi River. Nautilus 89(1):4 1975.
5. Mackie, J. Department of Zoology, Guelph University, Guelph, Ontario, Canada. Personal communication in telephone conversation with Mary Ellen H. Bakken (S&W) May 15, 1981.