

RELATED CORRESPONDENCE

September 7, 1982

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

Before the Atomic Safety and Licensing Board **82 SEP -9 A11:48**

In the Matter of)
CLEVELAND ELECTRIC ILLUMINATING)
COMPANY, Et Al.)
(Perry Nuclear Power Plant,)
Units 1 and 2)

Docket Nos. 50-440
50-441
(Operating License)

OFFICE OF SECRETARY
DOCKETING & SERVICE
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OHIO CITIZENS FOR RESPONSIBLE ENERGY
FOURTH SET OF INTERROGATORIES TO APPLICANTS

Ohio Citizens for Responsible Energy ("OCRE") hereby propounds its fourth set of interrogatories to Applicants, pursuant to the Licensing Board's Memorandum and Order of July 28, 1981 (LBP-81-24, 14 NRC 175).

Issue #7

Statement of Purpose: The following interrogatories concerning Issue #7 are designed to assess the Applicants' plans for detecting and preventing biofouling at PNPP caused by Asiatic clams.

4-1. Please produce a copy of the following document identified in the response to OCRE interrogatory 1-12: "Evaluation of the Asiatic Clam Corbicula Fluminea in the Western Basin of Lake Erie," prepared by Ms. Jennifer Scott-Wasilk, Mr. Gary G. Downing, and Mr. Jeffrey S. Lietzow of Toledo Edison.

4-2. Please list all documents in the possession of Applicants concerning the presence of Corbicula in Lake Erie.

Produce all such documents (except those previously provided).

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- 4-3. The "Corbicula Reconnaissance Survey" (May 1981) prepared for Applicants by NUS Corporation at p. 1 lists various methods for controlling Corbicula: chemical treatments, clam traps, mechanical cleaning devices, centrifugal separators, and magnetic water conditioners. Please provide a description of each of these methods with an assessment of their efficacy and their feasibility for use at Perry.
- 4-4. The "Report on General Plans (Permit to Install and 401 Certification) for the Proposed Perry Nuclear Power Plant" (part of the Ohio EPA permit dated July 12, 1974) at p. 2 states that there will be no backwash of the intake. Considering the potential for clam biofouling at PNPP, do Applicants still believe this statement is true? Specifically, if flow blockage due to Corbicula in the intake were to occur, would Applicants consider backwashing the intake, possibly with heated water, to kill/remove the clams?
- 4-5. If backwashing is not contemplated, how would such a problem be corrected?
- 4-6. FSAR Section 9.2.1.2 states that the intake of water for the ESWS can be taken from the discharge structure if the normal intake becomes unavailable. What is the probability of this occurring?
- 4-7. Does the discharge contain any screens or any other features to prevent the intake of adult Corbicula? Describe these features, including the mesh size of any screens.

- 4-8. During such circumstances in which the discharge would be used for water intake, do the Applicants intend to chlorinate the ESWS to kill any Corbicula larvae that might enter?
- 4-9. Describe the provisions Applicants will employ to prevent the accumulation of sediment within the intake, discharge, and ESWS.
- 4-10. Will non-safety-related service water systems be subject to Corbicula monitoring and control? List every such system and give the degree to which it will be monitored.
- 4-11. Provide a detailed description of the lake bottom near PNPP, including that near the intake and discharge structures
- 4-12. Describe in detail all plans for chlorination of the ESWS and intake/discharge flows. Have chlorination cycles been designed to coincide with Corbicula spawning seasons in Lake Erie?
- 4-13. Will the Corbicula monitoring program ^[including ESWS surveillance testing] for PNPP be continued throughout the construction of the plant and during maintenance outages after the plant begins operations?
- 4-14. Provide detailed, legible drawings of the ESWS; include the diameter of all piping, the location of flow meters and differential pressure indicators, and chlorination paths.
- 4-15. Provide a detailed description (and drawings) of the RHR heat exchangers. Specifically discuss the similarities and differences of the Perry heat exchangers with those of the Brunswick plant and Pilgrim I.
- 4-16. Are the RHR heat exchangers multiple pass? If so, does

the potential for internal bypass leakage exist (see AEOD Report on Service Water System Flow Blockages by Bivalve Mollusks at Arkansas Nuclear One and Brunswick (February 1982) at p. 33)? Provide all plans Applicants have proposed for measuring heat exchanger performance, in terms of heat transfer coefficient (i.e., other than flow/pressure measurements).

- 4-17. Will surveillance testing of the ESWS be conducted with the system aligned to its post-accident mode, as recommended by the AEOD Report?
- 4-18. Are the RHR heat exchangers at such an elevation and the ESWS piping to same configured such that they would become a trap for any debris swept into them?
- 4-19. Describe the metallurgical composition of the ESWS pumps, piping, and components, including that of any screens or cladding. Specifically, is Cu-Ni (or any other substance that might be toxic to clams) used?
- 4-20. Describe the metallurgy of RHR heat exchanger baffle plates and water boxes (and any welds therein). I.e., is carbon steel or Cu-Ni used? Compare the strength of the PNPP RHR heat exchangers with those at Brunswick/Pilgrim I.

Respectfully submitted,

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CERTIFICATE OF SERVICE

82 SEP -9 11:48

This is to certify that copies of the foregoing OHIO CITIZENS FOR RESPONSIBLE ENERGY FOURTH SET OF INTERROGATORIES TO APPLICANTS were served by deposit in the U.S. Mail, first class, postage prepaid, this 7th day of September, 1982 to those on the service list below.

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