

John K. Wood
Vice President, Nuclear

440-280-5224
Fax: 440-280-8029

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PY-CEI/NRR-2406L

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Perry Nuclear Power Plant
Docket No. 50-440
License Amendment Request Pursuant to 10CFR50.90:
Change to Operating License Appendix B for Corbicula Sampling Requirements

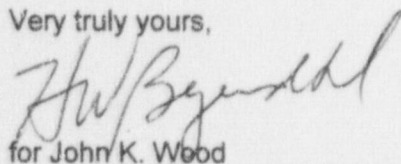
Ladies and Gentlemen:

Nuclear Regulatory Commission review and approval of a license amendment for the Perry Nuclear Power Plant (PNPP) is requested. The proposed amendment revises Operating License Appendix B, the PNPP Environmental Protection Plan. The proposed change will eliminate the requirement in the Environmental Protection Plan (EPP) to sample Lake Erie sediment in the Perry and Eastlake Plant area for Corbicula, since Corbicula and Zebra Mussels have already been identified, and control and treatment plans have been implemented which are effective on both species.

Attachment 1 provides a Summary, History, Description of the Proposed Change, Safety Analysis, and Environmental Consideration. Attachment 2 provides the Significant Hazards Consideration. Attachment 3 provides the annotated Operating License pages reflecting the proposed change.

There are no regulatory commitments contained in this letter. If you have questions or require additional information, please contact Mr. Henry L. Hegrat, Manager - Regulatory Affairs, at (440) 280-5606.

Very truly yours,



for John K. Wood

Attachments

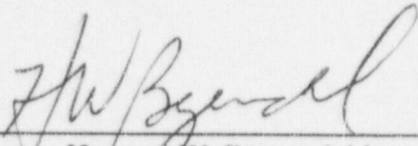
cc: NRC Project Manager
NRC Resident Inspector
NRC Region III
State of Ohio

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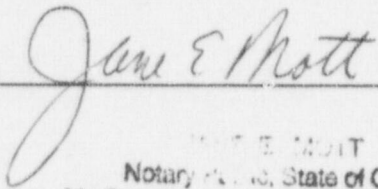
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I, Howard W. Bergendahl, hereby affirm that (1) I am Director, Perry Nuclear Services Department of the FirstEnergy Nuclear Operating Company, (2) I am duly authorized to execute and file this certification on behalf of The Cleveland Electric Illuminating Company and Toledo Edison Company, and as the duly authorized agent for Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company, and (3) the statements set forth herein are true and correct to the best of my knowledge, information and belief.


Howard W. Bergendahl

Subscribed to and affirmed before me, the 9th day of September, 1999


JANE E. MOTT
Notary Public, State of Ohio
My Commission Expires Feb. 20, 2000
(Recorded in Lake County)

Summary

The region of Lake Erie near the Perry Nuclear Power Plant (PNPP) is now known to have Corbicula, a.k.a. Asiatic Clams. They were found at the Eastlake Plant in June of 1987. In addition, Zebra Mussels have been detected at the Perry Plant since 1987. Although Asiatic Clams have yet to be identified at the Perry Plant, should they arrive, the monitoring and treatment for zebra mussels, now performed annually, will ensure that the clams are identified and treated. The proposed change will eliminate the requirement in the Environmental Protection Plan (EPP) to sample Lake Erie sediment in the Perry and Eastlake Plant area for Corbicula, since Corbicula and Zebra Mussels have already been identified, and control and treatment plans have been implemented. The elimination of the sampling will result in savings of about 22,000 dollars per year.

History

Monitoring for Corbicula has been performed since 1981, and originated in response to Bulletin 81-03. The original program included lake-water sampling of the Eastlake Plant intake and discharge and areas adjacent to the Perry Plant intake and discharge structures. Maintenance was included in the plan at Eastlake as well as extensive visual inspection of the plant service water equipment at Perry by divers twice per year.

The program was revised in 1988. In a letter to the NRC dated October 2, 1987 (PY-CEI/NRR-0707L), the new program, consisting of three phases, was described in detail, and a change was requested to Appendix B to the Perry Plant Operating License (the Environmental Protection Plan). Phase I established a communications network with other facilities monitoring for clams on Lake Erie, and a sampling plan at the Perry and Eastlake Plants. Phase II was to determine the most appropriate course of action to be taken once clams were detected. Phase III was to constantly evaluate the treatment or control methods that were being used, once clams were detected, with changes in treatment technology. The change to the EPP was approved and implemented on July 20, 1988. Zebra mussels were identified at the Perry Plant just prior to approval of the program. The control methods for mussels were not yet identified.

On January 26, 1990, a response to Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment," was submitted. At the time, the freshwater source (Lake Erie) still had zebra mussels present. Research was in progress, but no prevention or control for mussels was yet in place at the Perry Plant. The NRC recommendations included two surveillance techniques and two control techniques (Surveillance Techniques A & D and Control Techniques B & C).

- Surveillance Technique A- monitoring plan for freshwater/brackish water with clams or freshwater without clams
- Surveillance Technique D- monitoring plan for freshwater without clams
- Control Technique B- chlorinating and other chemical control
- Control Technique C- system flushing and flow testing

The criteria for responding to the recommendations were based on whether the intake water was freshwater or salt water and whether clams were present or not. The response agreed to fulfill all four surveillance and monitoring recommendations.

Appropriate monitoring/surveillance programs were already in place at PNPP. A Zebra Mussel control program was subsequently implemented.

Surveillance Technique D, monitoring, was a recommendation for freshwater without clams. It included monitoring for clams at plants upstream of the Perry Plant. The Perry Plant water source (Lake Erie) has since evolved into "freshwater with clams" so it is no longer necessary or beneficial to perform Surveillance Technique D. If Corbicula appear at the Perry Plant, then Surveillance Technique A and Control Techniques B & C are sufficient for initial identification and control. Surveillance Technique A involves visual inspection of the intake structure once per refueling cycle. Control Techniques B & C include system chlorinating, annual mollusk treatment and periodic flushing of plant systems, and still apply to the Perry Plant. The Ohio EPA has approved two molluscicides for use at the Perry Plant. Both products are also effective Corbicula control treatments. The treatment is performed annually. The applicable surveillance and control recommendations will continue to be met by programs currently in place at the Perry Plant.

This proposal is consistent with NRC guidance provided in Enclosure 1 to Generic Letter 89-13. With respect to Surveillance Technique D, which is equivalent to the lake sampling program required by the EPP, the NRC stated

"Samples of water and substrate should be collected annually to determine if Asiatic clams have populated the water source. Water and substrate sampling is only necessary at freshwater plants that have not previously detected the presence of Asiatic clams in their source water bodies. If Asiatic clams are detected, utilities may discontinue this sampling activity if desired, and the chlorination (or equally effective) treatment program should be modified to be in agreement with paragraph B, above."
[Paragraph B described Surveillance Technique B]

Description of the Proposed Change

It is proposed that Appendix B to the Operating License, the Environmental Protection Plan (EPP), be revised. Section 2.1 (2) would be revised to eliminate the reference to sampling plans. Sampling to identify the arrival of clams is no longer necessary since clams have been identified in the area and mollusk control methods are already in use, due to the presence of zebra mussels. Control methods are monitored for effectiveness and will be verified effective for clams should the presence of Corbicula be identified at the Perry Plant. Section 4.2.1 (2) is being deleted to eliminate the reference to the semi-annual sampling at the Perry Plant and at the Licensee's Eastlake plant to detect the presence of Corbicula. This sampling requires the hand dredging of the lake bottom near the Perry and Eastlake plants and the sediment at the intakes. This change is consistent with the recommendations for monitoring of freshwater with clams as described in Generic Letter 89-13.

Safety Analysis

The purpose of the monitoring program was to prepare for prevention and control programs, should the eventual presence of clams at the Perry Plant become a reality. Due to the appearance of zebra mussels at the Perry Plant, an effective control program is already in place that would also be effective against Corbicula, should their eventual presence be realized. The proposed change to eliminate lake sampling for Corbicula will not present any safety concerns at the Perry Plant.

ENVIRONMENTAL CONSIDERATION

The proposed Operating License change request was evaluated against the criteria of 10 CFR 51.22 for environmental considerations. The proposed change does not significantly increase individual or cumulative occupational radiation exposures, does not significantly change the types or significantly increase the amounts of effluents that may be released off-site and, as discussed in Attachment 2, does not involve a significant hazards consideration. Based on the foregoing, it has been concluded that the proposed Operating License change meets the criteria given in 10 CFR 51.22(c)(9) for categorical exclusion from the requirement for an Environmental Impact Statement.

Significant Hazards Consideration

The standards used to arrive at a determination that a request for amendment does not involve a significant hazard are included in Commission regulation 10C:FR50.92, which states that operation of the facility in accordance with the proposed changes would not:

- 1) involve a significant increase in the probability or consequences of an accident previously evaluated; or
- 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or
- 3) involve a significant reduction in a margin of safety.

The proposed amendment has been reviewed with respect to these three factors and it has been determined that the proposed change does not involve a significant hazard because:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The Perry Plant water source (Lake Erie) is now known to have mussels and clams present. Therefore, it is no longer necessary to use lake sampling techniques designed to provide advance notice of their arrival. Treatment programs and monitoring for system fouling are in place. The treatment programs and system monitoring for fouling makes it highly likely that equipment degradation due to Corbicula would be avoided or readily identified, allowing time for corrective actions. Therefore, the programs will ensure that plant systems remain capable of performing their intended functions. Since the lake sampling was designed to allow time to implement a control program, and the control program is now in place, elimination of the lake sampling program will not involve a significant increase in the probability or radiological consequences of an accident previously evaluated.

2. The proposed change would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change will eliminate the lake sampling program designed to detect the arrival of Corbicula, a particular species of clam, at the Perry Plant. Since the clam is now known to exist in the vicinity, and control methods are developed and implemented, advanced detection is no longer required. Since the proposed change involves only a monitoring program and does not change or modify the design, maintenance or operation of any plant equipment, the proposed change would not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed change will not involve a significant reduction in the margin of safety.

The current requirements for aquatic monitoring are designed to detect Corbicula prior to plant cooling water systems and heat exchangers becoming infested with clams and flow becoming degraded, and thus reducing the cooling available to safety systems.

Since an effective control method has already been implemented, the deletion of a lake sampling method to provide advance warning of clams in the area provides no significant benefit. The proposed change will continue to provide the same level of protection against system or component fouling that currently exists, thus the proposed change will not involve a significant reduction in the margin of safety.

Based on the above considerations, it is concluded that a significant hazard would not be introduced as a result of this proposed change. Also, since NRC approval of this change must be obtained prior to implementation, no unreviewed safety question can exist.