



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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Dalwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

April 19, 1982

Mr. A. Schwencer
Chief, Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Response to Draft SER
Auxiliar ms Branch

Dear Mr. Schwencer:

This letter and its attachment is submitted to provide revised responses to the concerns identified in the Draft SER for Auxiliary Systems.

It is our intention to incorporate these responses in a subsequent amendment to our Final Safety Analysis Report.

Very Truly Yours,

Dalwyn R. Davidson
Vice President
System Engineering and Construction

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Section 9.2.1 - Station Service Water System - The applicant is required to describe the plant provision to monitor possible flow blockage in the emergency service water system resulting from sources such as Asiatic clams.

Response

Monitoring for possible flow blockage in the Emergency Service Water system resulting from sources such as asiatic clams, will be accomplished through a program of lake water sampling, surveillance testing and maintenance inspections.

Comprehensive sampling of Lake Erie in areas around intake and discharge structures will be conducted and visual inspections of potential collection points(i.e. pumphouse traveling screens trash racks, pump strainers, and cooling tower basin will also be made). Normal maintenance inspections for out of service equipment will include inspections for any deposits that might cause flow blockage.

Surveillance testing of the ESW system will be done on a monthly basis. Once a month, the same pump will be started. Pressure and flow indication will be recorded during the operation of this cooling loop. This data will be compared to previous recorded operating data to determine if there has been any deterioration in system performance. In addition, the pump discharge strainer pressure drop will be monitored for possible flow blockage and visually inspected as needed. Data recorded will include flows and pressure drops through the RHR Heat Exchanger, ECCS Heat Exchanger and D/G Jacket Water Heat Exchanger.

In the event, that asiatic clams are found to be fouling ESW equipment, an appropriate program would be developed and implemented to control the infestation of clams in the ESW system.

April 15, 1982

Section 9.4.1 - Control Room Area Ventilation System -

Figure 1.2-6 on the FSAR shows the six emergency diesel exhaust silencers on the roof of the diesel-generator building at an elevation of approximately 650 ft. and approximately 75 ft. west of the control building wall. Figure 1.2-9 shows two air intakes on the west wall of the control building at the approximate elevation of 680 ft. It also shows air intakes on the north and south walls of the control building at the same elevation. Describe the systems serviced by these air intakes. In the event of a west wind simultaneous with the diesel operation, it seems possible that poisonous diesel exhaust fumes could be drawn into the control building. The applicant is required to demonstrate either that this cannot occur or that it would not pose a threat to the safe conduct of operations of the station.

Response

We have evaluated the potential for infiltration of CO from a D/G exhaust through the control complex air intakes into the control room. A dispersion calculation resulted in X/Q values ranging from 10^{-2} to 10^{-4} with the resulting maximum concentration of 2.4 ppm to 0.02 ppm at the air intakes. This is well below the Environmental Protection Agency standards of 9 ppm averaged over an 8 hour period, or 35 ppm in a one hour period. Thus, the CO is diluted to a low enough concentration to be harmless to the control room operators, and will not pose a threat to the safe conduct of operations of the plant.

April 15, 1982

410.5 Section 3.6.2.3.5 of the FSAR indicates that analyses of flooding resulting from high or moderate line failures have been performed. For areas containing high or moderate pipies, present the results of these analyses on a room by room basis to demonstrate that the plant will be able to achieve safe shutdown considering the height to which the water would rise assuming the failure of one of the pertinent sump pumps.

Response

The response to this question is provided in revised Section 3.6.2.3.5.

These analyses take no credit for operation of building sump pumps, none of which are safety-related.

A high level alarm is provided to protect the ECCS instrument racks in the Auxiliary Building hallway at elevation 568'-4". This is provided by redundant non-safety grade level switches, set to alarm in the control room at a water level 2 inches above the floor.