



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

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Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing  
Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Ms. Adensam:

Thank you for your letter of February 12, 1982, transmitting copies of the draft environmental impact statement related to the operation of Midland Plant, Units 1 and 2, Midland County, Michigan. Our comments are presented according to the format of the statement or by subject.

### Tittabawassee River

Additional data should be presented in the final statement concerning the impacts from plant discharges in the river, as well as an approximation of the actual effects to be caused by the plume in the river.

More important, however, we believe the discussions about the effects of the thermal plume in the river, and to fishery resources including fish migration are unclear and fragmented. (Refer to sections 4.2.6.2, 5.3.2.2 and 5.5.2.2.)

For example, paragraphs one and three on page 5-12 are contradictory in their conclusion as to whether the fisheries in the Tittabawassee River will be subjected to cold shock. Furthermore, the discussion on the subject of intermittent heated discharge into the Tittabawassee River and its effect on the fisheries during the winter season is not adequate. The following additional information would be helpful in describing the effects of the thermal discharge on the fisheries of the Tittabawassee River: the space occupied by the plume in the temperature range which would be detrimental to fish by sudden temperature drops; the species affected, and how; and the tendency for thermal discharges to attract and concentrate fish in the plume areas during winter months. A discussion on the percent of time the average and worst case plume sizes will occur for the coldest and warmest months indicated should also be presented along with the confidence limits for the analysis of plume configurations.

### Site Ecology

The statement is made that the applicant is committed to a landscaping program that will mitigate some of the construction-phase impacts on terrestrial wildlife. This program will include planting 350 acres with native, or closely related, tree species. More information about the landscaping program is required in the final statement to evaluate the program's value as a mitigation measure to wildlife. Information needed to

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assist in this evaluation would include the following items: (1) Will the program include the planting of tree species that are valued as cover and forage habitat for wildlife? (2) How many trees per acre will be planted? (3) Will the understory be allowed to develop into a natural ground cover, or will it be maintained as a manicured lawn? and (4) Will there be buildings, vehicle traffic, and other human activity within the 350-acre area? These data should be presented in the final statement.

#### Cooling Pond Ecology

The brief discussion on the effects of the cooling pond on waterfowl indicates that the 880-acre heated pond will attract and over-winter migratory birds, and cause some waterfowl mortality. A conclusion of no significant impact on birds was reached in this statement which was based on a comparison of "regional" bird populations to pond-induced mortalities. No information is presented to indicate whether the data base used in reaching this conclusion was based on cumulative impacts, which are necessary for this type of comparison. Cumulative impacts are those effects on migratory birds resulting from all existing open-waters created in the "region," and projecting the amount and effects of additional open-waters in the future.

The Fish and Wildlife Service winter waterfowl survey of January 25, 1982 records approximately 5,000 diving ducks in the open-water area on Saginaw Bay. This open-water area is created by the thermal discharges from the Karn and Weadocks electric generating facilities.


As the Midland Electric Generating Plant becomes operational, its large heated cooling pond, which supports fish, aquatic plants and possibly other forage organisms of waterfowl, could attract and hold hundreds or even thousands of birds. If these migratory birds remain after mid-January, they probably will be too weak to continue their migration, would overwinter in the pond, and be subjected to the harsh winter conditions prevalent. As a result, large numbers could succumb to starvation, disease or pond freeze-up due to plant shut-down. For the protection of this important resource, it is strongly suggested that waterfowl use and mortality be monitored at this large open-water area during the winter months and made a condition in the license.

#### Releases to Ground water

The staff's analysis of the consequences of a core-melt accident states that virtually no contamination would reach the Tittabawassee River. Because only a few of the assumptions made for this evaluation are given, a detailed review of the evaluation is not possible. Since the reactors are only 750 feet from the shore of the river, we believe the complete analysis should be made available for review in the final statement.

We hope these comments will be helpful to you in the preparation of a final statement.

Sincerely,

  
Bruce Blanchard, Director  
Environmental Project Review