

NOV 16 1976

Docket Nos. 50-329  
and 50-330

Consumers Power Company  
ATTN: Mr. Stephen H. Howell  
Vice President  
212 West Michigan Avenue  
Jackson, Michigan 49201

Gentlemen:

APPENDIX I INFORMATION FOR MIDLAND PLANT, UNIT NOS. 1 AND 2

We have completed our review of the information provided in your letter dated June 1, 1976. In order to complete our evaluation of the Midland Plant, Unit Nos. 1 and 2 to meet the Appendix I of 10 CFR Part 50 we find we will need the additional information requested in the enclosure.

It is requested that you provide the information requested in the enclosure, as soon as practicable, to permit completion of our Appendix I evaluation of the Midland Plant, Unit Nos. 1 and 2 design. Please provide your schedule to submit the requested information within 7 days after receipt of this letter. If you have any questions regarding these matters, please contact us.

Sincerely,

THIS DOCUMENT CONTAINS  
POOR QUALITY PAGES

S. A. Varga, Chief  
Light Water Reactors  
Branch No. 4  
Division of Project Management

Enclosure:  
Request for Additional  
Information

cc: See next page

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SURNAME →	RPowell, pv	SAVarga			
DATE →	11/16/76	11/16/76			

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Consumers Power Company

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ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION  
MIDLAND, UNIT NOS. 1 AND 2  
DOCKET NUMBERS 50-329/330

1. In the discussion of intermittent releases (p. 60, Appendix B), the statement is made that, "Normally the gas from the radwaste gas decay tanks is released during favorable meteorological conditions."
  - a) Define "favorable meteorological conditions" in this context.
  - b) Identify the operating experience that supports that statement.
  - c) Discuss how "favorable meteorological conditions" will be determined prior to release.
  - d) Indicate if the technical specifications developed for this plant will reflect releases from the radwaste gas decay tanks during "favorable meteorological conditions."
  
2. Also in the discussion of intermittent releases, it is stated that, "The iodine activity in the reactor building can be reduced by operating the internal cleanup system for longer periods (prior to purge) if favorable meteorological conditions do not exist."
  - a) Discuss how "favorable meteorological conditions" will be determined prior to purge.
  - b) Indicate if the technical specifications developed for this plant will reflect releases resulting from reactor building purges during "favorable meteorological conditions" without operating the "internal cleanup system" or that the "internal cleanup system" will be operating if "favorable meteorological conditions" do not exist at the time of release.
  
3. Onsite meteorological measurements collected during the period March 1, 1975 to February 29, 1976 have been compared with long-term (1941-1970) meteorological data collected at Flint. A comparison of concurrent data (March 1, 1975 to February 29, 1976) from Flint with the long-term data from Flint should provide a more meaningful justification of the representativeness of the available onsite data.
  - a) Indicate if such a comparison of Flint data was made, and discuss the results; or
  - b) If such a comparison of Flint data was not made, indicate if this comparison is anticipated, or discuss the rationale for not making the comparison.

4. The modifications to the straight-line flow model to account for possible recirculation of airflow, as presented in Regulatory Guide 1.111, may not be applicable to the Midland site. However, the correction factors for open terrain presented in Regulatory Guide 1.111 were developed as a result of comparing calculations of relative concentration ( $X/Q$ ) values using a variable-trajectory (puff-advection) model and a straight-line flow model, both using meteorological data from a Midwest site not unlike Midland. The discussion of "Airflow Trajectory Regimes" (p. 62, Appendix B) is not sufficient for using the straight-line flow model without modifications for effects of spatial and temporal variations in airflow.
  - a) Provide additional substantiation and justification that calculations of  $X/Q$  values using the straight-line flow model without modifications to account for possible recirculation of airflow are reasonably representative or conservative for the Midland site; or
  - b) Develop site-specific modifications to the straight-line flow model to consider the effects of spatial and temporal variations in airflow.
5. Identify the nearest milk or meat animal out to a distance of five miles, by sector that may exist at locations other than dairy farms or cattle farms.
6. Indicate where the main condenser air ejector exhaust is released from the plant, and the provisions incorporated to reduce radioactive releases through this exhaust system. Provide a description of this release point, including height above grade, height above and relative location to adjacent structures, relative temperature difference between gaseous effluent and ambient, flow rate, velocity, and size and shape of the vent outlet.
7. Provide the expected temperature of the effluent from the 66-inch diameter stack through which the reactor building is purged.
8. Indicate whether there are diffusers or spreaders on any release point.