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April 30, 1988
NRC-88-0115

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Reference: Fermi 2
NRC Docket No. 50-341
Facility Operating License No. NPF-43

Subject: Annual Non-Radiological Environmental
Operating Report

Attached is the 1987 Annual Non-Radiological Environmental Operating Report for Fermi 2. This submittal is required by section 5.4.1 of the Environmental Protection Plan.

If you have any questions or comments about this report, please contact Mr. James Kepus at (313) 586-4286.

Sincerely,

W. S. Orser
Vice President
Nuclear Operations

Enclosure

cc: Mr. A. B. Davis
Mr. R. C. Knop w/o attachment
Mr. T. R. Quay w/report
Mr. W. G. Rogers w/o attachment

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EXECUTIVE SUMMARY

ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT FOR FERMI 2 - 1987

The Environmental Protection Plan (EPP) provides for protection of environmental values during any additional construction and the operation of Fermi 2. The principal objectives of the EPP are as follows:

1. Verify that Fermi 2 is operated in an environmentally acceptable manner, as established by the Final Environmental Statement (FES) and other Nuclear Regulatory Commission (NRC) environmental impact assessments.
2. Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.
3. Keep the NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FES which relate to water quality matters are regulated by way of Fermi's National Pollutant Discharge Elimination System (NPDES) permits. As such, water quality issues are not addressed in this report.

The components of the EPP are:

1. A terrestrial monitoring program to detect long-term or sudden changes in vegetation due to operation of Fermi 2.
2. A program to establish the controlled use of herbicides on transmission rights-of-way.
3. A program to ensure that potential changes to Fermi's design or operation, and potential tests or experiments are adequately reviewed, prior to implementation, to avoid potential adverse environmental impacts not previously evaluated. Changes in plant design, operation

or the performance of tests or experiments which do not effect the environment or which are required to achieve compliance with other Federal, State or local environmental regulations, are not subject to the requirements of this EPP.

4. Routine monitoring for evidence of unusual or important environmental events.

A terrestrial monitoring program was conducted to measure key terrestrial parameters after startup of the Fermi 2 facility for comparison with corresponding measurements obtained prior to startup. This study focused on effects due to the operation of the cooling towers at Fermi 2. The Fermi 2 Environmental Protection Plan requires aerial remote sensing during the first July-September period after the station has been in operation for one year. Because this type of study focuses on effects caused by the operation of cooling towers at the Fermi 2 site, the first post-operational survey was performed during the July-September, 1987 period. Fermi 2 operated during every month of 1987 except for September and October.

Color infrared aerial photographs were used to delineate cover types, vegetation stress patterns, and crop land-use in the 39 square-mile Fermi 2 survey area. Soil samples were collected and analyzed from areas expected to receive a wide range of cooling-tower salt drift on soils. These analyses provided the first opportunity since the plant began operation to evaluate vegetation stress that could be attributable to plant operation. No positive correlation could be detected between vegetation stress and the predicted pattern of salt drift deposition. Soil analyses indicated no significant changes from preoperational data. The PH and conductivity of the samples were consistent with good fertility and low ionic stress.

A copy of the 1987 REMOTE SENSING AND VEGETATION GROUND TRUTH PROGRAM report and a set of aerial photograph transparencies covering the area within about 2 kilometers of the cooling towers are enclosed.

The use of herbicides at Fermi 2 must conform to the approved use of selected herbicides as registered by the Environmental Protection Agency, approved by State authorities, and applied as directed by said authorities. Records are maintained at the site concerning herbicide use. These records include the following information: commercial and chemical names of material used, concentration of active material in formulations diluted for field use; diluting substances other than water; rates of application; method and frequency of application; location; and the date of application.

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Before engaging in additional construction or operational activities which might affect the environment, Fermi 2 would prepare and record an environmental evaluation of such activity. If the evaluation should indicate that the proposed activity would involve an unreviewed environmental question, Detroit Edison would provide a written evaluation of the activity and obtain prior approval from the Director, Office of Nuclear Reactor Regulation. Activities are excluded from this requirement if all measurable, non-radiochemical effects are confined to the on-site areas previously disturbed during site preparation and plant construction. During the period covered by this report, there were no changes to station design or operation, tests, or experiments which involved potentially significant unreviewed environmental issues.

Finally, any unusual occurrence or important event which indicates, or could result in, significant environmental impact is reported to the NRC within 24 hours followed by a written report. The following examples are considered examples of an unusual or important environmental events: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act, fish kills, and an increase in nuisance organisms or conditions. During this period there were no unusual or important environmental events. Accordingly, no non-routine reports were submitted.