



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket No. 50-341

OCT 12 1978

MEMORANDUM FOR: L. G. Hulman, Chief
Hydrology-Meteorology Branch, DSE

FROM: J. E. Fairbent, Meteorologist
Meteorology Section, HMB, DSE

THRU: E. H. Markee, Jr., Leader *E. H. Markee*
Meteorology Section, HMB, DSE

SUBJECT: METEOROLOGY SITE VISIT TO FERMI

On October 4, 1978, I met with Evelyn Madsen, Detroit Edison Company (DECo), and Roger Nelson and Mickey Myers, meteorologists with Camp Dresser & McKee Inc. (CDM), to examine the Fermi site and inspect the onsite meteorological measurements program.

We toured the site, with particular attention to the locations of the two natural draft cooling towers and the two mechanical draft cooling towers to be used as the ultimate heat sink. We also examined the locations of the previous meteorological towers used to collect onsite meteorological data at the Fermi site. The 150m meteorological tower remains in place, although it was decommissioned in June 1976.

The current meteorological measurements program consists of a free-standing 60m tower, located about 680m inland from the shore of Lake Erie, and about 630m further inland than the Unit 2 reactor building. Wind speed and direction measurements are made at the 10m and 60m levels; ambient temperatures are measured at the 10m and 60m levels; and dew point temperature is measured at the 10m level. Vertical temperature gradient is determined by electronic subtraction of the two ambient temperature measurements. The primary data recording system is digital, utilizing punched paper tape. Strip chart recorders are available as a secondary recording system. A CDM technician visits the facility about 3 times each week for routine maintenance and troubleshooting, and calibrations of the entire data collection system are performed every 6 months. The 60m tower was in operation concurrently with the 150m tower for a two year period (June 1974 - June 1976). However, data from the 60m tower for the period June 1976 - June 1978 are not available from DECo. The 60m tower data collection program has recently been re-started.

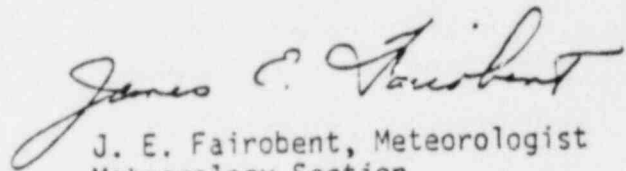
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We discussed the data collection program, including quality assurance procedures, and items of concern in our review of the one year (June 1974 - June 1975) of data previously submitted by DECo. We also discussed the location of the sensors at the 10m level with respect to interference from the tower structure during certain meteorological conditions, and the data available for the Appendix I evaluation. For the Appendix I evaluation, a mixed mode release was assumed; however, at the site visit it was noted that a rain-shield or diffuser was in place above the reactor building vent, which would preclude use of the mixed mode release assumption. Ms. Madsen stated that the rain-shield or diffuser would be removed.



J. E. Fairbent, Meteorologist
Meteorology Section
Hydrology-Meteorology Branch
Division of Site Safety and
Environmental Analysis

cc: R. Denise
V. Moore
D. Vassallo
R. Ballard
J. Stolz
L. Kintner
C. Haupt
J. Fairbent
J. Levine
ACRS (16)
NRC PDR
Local PDR