

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-3D

TITLE: Primary Determination of
Meteorological Data

DATE: JUN 21 1983

PAGE 1 of 3

REVIEWED BY

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1.0 APPLICABILITY

This procedure is used to gather the Kewaunee Nuclear Power Plant Meteorological Data.

2.0 PRECAUTIONS

2.1 As a minimum, the following meteorological parameters from the Kewaunee Nuclear Power Plant Meteorological tower are required to use this procedure.

- One wind speed indication (60 meter elevation or 10 meter elevation).
- One wind direction indication (60 meter elevation or 10 meter elevation).
- Vertical Temperature Difference indication (Delta T between 60 meters and 10 meters) or Sigma Theta.

If this minimum data is not available, acquire and use data from EP-ENV-3E, Manual Determination of meteorological data (Green Bay Meteorological Data).

2.2 Meteorological data must be re-evaluated every 30 minutes or whenever significant changes occur.

3.0 REFERENCES

- 3.1 NRC Regulatory Guide 1.145, Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants, August 1979.
- 3.2 NRC Regulatory Guide 1.23, Rev 1 (Proposed), Meteorological Programs In Support of Nuclear Power Plants, September 1980.

4.0 INSTRUCTION

4.1 Gathering the Meteorological Data

- 4.1.1 Record the meteorological parameters available in section I on Form ENV-3D.1, Meteorological Data Worksheet.
- 4.1.2 Record the additional release information in Section II on Form ENV-3D.1, Meteorological Data Worksheet.

4.2 Lake Breeze Determination

Determine if lake breeze exists using Form ENV-3D.2, Lake Breeze Effect Worksheet. If lake breeze condition exists, enter the data on Form ENV-3D.2 into the Dose Prediction Program.

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FORM ENV-3D.1

METEOROLOGICAL DATA WORKSHEET

DATE _____ TIME _____

I. METEOROLOGICAL PARAMETERS

Data Source (circle one): Primary Tower / Backup Tower

<u>Parameter Description</u>	<u>Parameter Name</u>	<u>Parameter Indications</u>
a. Wind Direction at 60 meter level	WD 60	_____ Degrees
b. Wind Direction at 10 meter level	WD 11	_____ Degrees
c. Wind Speed at 60 meter level	WS 60	_____ MPH
d. Wind Speed at 10 meter level	WS 10	_____ MPH
e. Vertical Temperature Differences	Delta T	_____ °F
f. Standard deviation of horizontal wind direction	Sigma Theta	_____ Degrees

II. RELEASE INFORMATION

Circle one answer per question:

- a. Is a primary to secondary leak in progress? YES / NO
- b. Is the release from the Steam Generator Safety Valves, Steam Generator Power Operated Relief Valve or Turbine Driven Auxiliary Feed Pump Steam Exhaust? YES / NO

FORM ENV-3D.2

LAKE BREEZE EFFECT WORKSHEET

DATE _____ TIME _____

- I. Is local wind direction (WD 10 from Form ENV-3D.1 or WD 60 if WD 10 is not available) between 20° and 170° clockwise?

NO - No lake breeze effect (ignore the rest of form)

YES - Proceed to step II.

- II. Call Green Bay National Weather Station for the following data:
(Phone _____)

- a. Green Bay wind direction: _____ degrees
b. Average opaque sky cover from sunrise to present _____ tenths
c. 850 millibar wind speed from Green Bay morning sounding _____ knots.

- III. Is Green Bay wind direction between 210° and 330° clockwise?

NO - No lake breeze effect (ignore rest of form)

YES - There is a lake breeze effect (go to step IV)

- IV. Determine the onset time of the lake breeze from a review of the strip chart wind direction data record in TSC. A sudden wind shift from the SW-NW sector to an easterly component will mark the onset time.

Lake Breeze Onset Time: _____