TO: USNRC/WASHINGTON

JMCKNIGHT   Copy Number: 145

TRANSMITAL NUMBER: **220006**

PROCEDURE NUMBER: EI-6.7

TITLE: PLANT SITE METEOROLOGICAL SYSTEM

TRANSMITTAL: LISTED BELOW ARE NEW/REVISED PROCEDURES WHICH MUST BE IMMEDIATELY INSERTED INTO OR DISCARDED FROM YOUR PROCEDURE MANUAL.

Action Required	Section or Description
REMOVE AND DESTROY	EI-6.7, R/6, ENTIRE PROCEDURE
REPLACE WITH	EI-6.7, R/6, ENTIRE PROCEDURE
	EDITORIAL AND APPLICABILITY
	WORD 2000 CONVERSION

SIGN, DATE, AND RETURN THE ACKNOWLEDGEMENT FORM WITHIN 10 DAYS TO THE PALISADES PLANT DOCUMENT CONTROL.

SIGNATURE OR INITIALS   DATE

_____   _____

A045

PALISADES NUCLEAR PLANT
EMERGENCY IMPLEMENTING PROCEDURE

TITLE: PLANT SITE METEOROLOGICAL SYSTEM

(signature)	/	4/9/02
Procedure Sponsor		**Date**

NKBrott	/	2/17/95
Technical Reviewer		**Date**

	/	
User Reviewer		**Date**

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ATTACHMENTS

Attachment 1, "Plant Site Meteorological System Worksheet"

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> **USER ALERT**
> INFORMATION USE PROCEDURE
>
> The activities covered by this procedure may
> be performed from memory.

1.0 PERSONNEL RESPONSIBILITY

The Health Physics Support Group Leader is responsible for the implementation of this procedure. In the absence of a Health Physics Support Group Leader, the Site Emergency Director or EOF Director shall delegate this responsibility.

2.0 PURPOSE

To provide a procedure to access the Plant site meteorological system for meteorological data required in the offsite dose calculations.

3.0 REFERENCES

3.1 SOURCE DOCUMENTS

3.1.1 NUREG 0654, Section 1 "Accident Assessment"

3.1.2 Palisades Site Emergency Plan, Section 7 "Emergency Facilities and Equipment"

3.2 REFERENCE DOCUMENTS

3.2.1 Emergency Implementing Procedure EI-6.0, "Offsite Dose Calculation and Recommendations for Protective Actions"

3.2.2 Emergency Implementing Procedure EI-6.8, "Backup and Supplemental Meteorology"

3.2.3 Palisades Administrative Procedure 10.46, "Plant Records"

3.2.4 Palisades Administrative Procedure 10.41, "Procedure Initiation and Revision"   1e

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4.0 INITIAL CONDITIONS AND/OR REQUIREMENTS

4.1 This procedure shall be implemented as required per Emergency Implementing Procedure EI-6.0, "Offsite Dose Calculation and Recommendations for Protective Actions."

4.2 Data and results from this procedure may be recorded on the Plant Site Meteorological System Work Sheet, Attachment 1, of this procedure.

4.3 An Emergency Preparedness Computer in either the Control Room, TSC, or EOF is required for remote access (Section 5.2).

4.4 If Dose Assessment software is loaded onto a computer not listed in Section 5.2, the EP Coordinator shall be notified of such actions prior to loading the software.

5.0 PROCEDURE

USER ALERT
INFORMATION USE PROCEDURE

The activities covered by this procedure may be performed from memory.

5.1 USING CONTROL ROOM PLANT PROCESS COMPUTER (PPC) METEOROLOGICAL DATA DISPLAY

5.1.1 The Meteorological Data display in the Control Room is updated every 15 minutes, automatically. If the Meteorological Data display is not available in the Control Room, go to Section 5.2. The display consists of the following parameters:

Height 60 Meters

Wind Direction	(in Circular Degrees)
Snd Deviation	(in Circular Degrees)
Wind Speed	(in Miles per Hour)
Delta Temperature	(in Degrees Celsius)
Stability	(Pasquill Stability Category)

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Height 10 Meters

Wind Direction	(in Circular Degrees)
Snd Deviation	(in Circular Degrees)
Wind Speed	(in Miles per Hour)
Temperature	(in Degrees Celsius)

NOTE: Operations and Engineering should normally be the only personnel accessing parameters on the PPC.

5.1.2 The Meteorological Data Display can be accessed by:

   a. Paging through the "Environmental" screen to the "Meteorological Data" screen.

   b. Paging directly to page 351 of the PPC.

   c. The Meteorological Data display can be printed by hitting the "Print" key.

5.1.3 **IF** Attachment 1, "Plant Site Meteorological System Work Sheet," is being used, **THEN** record readings for 10-meter wind speed and 10-meter wind direction (direction from which the wind is blowing). Mark 10 meters on the work sheet.

   a. If either of the 10-meter data values is not available (NA), use the corresponding 60-meter data values. Multiply 60-meter wind speed by 0.77 and record data on the work sheet. Mark 60 meters on the work sheet.

   b. If neither the 10-meter nor the 60-meter wind data are available, go to procedure Emergency Implementing Procedure EI-6.8, "Backup and Supplemental Meteorology," to obtain meteorological data.

5.1.4 Record the Pasquill Stability Category on Attachment 1 if this work sheet is being used.

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5.2   **USING REMOTE ACCESS METEOROLOGICAL DISPLAY (EMERGENCY PREPAREDNESS COMPUTER IN TSC, CONTROL ROOM, AND EOF)**

Remote access computers are to be used when the Control Room Meteorological Data display is not available, or to obtain a Plant site meteorological display outside of the Control Room.

5.2.1   Turn the power on to the personal computer and all peripherals using either the master power switch, or the power switches on the computer, monitor, modem, and printer. The main menu should appear after the computer boots.

5.2.2   If the computer is already on, exit any program or menu screen until the main menu appears. If the computer is at a DOS prompt, type the word AUTO or AUTOEXEC at any C prompt to load the main menu. If nothing else works to return to the menu, turn the power to the computer off and then back on. The main menu should appear after the computer re-boots.

5.2.3   Choose option one (1), PALISADES DOSE ASSESSMENT PROGRAM, from the main menu. Choose option nine (9), Access Meteorological Monitoring Systems, to access the METEOROLOGICAL DATA MENU. Two options exist on the METEOROLOGICAL DATA MENU to retrieve information from the Palisades meteorological tower.

5.2.4   Occasionally, a poor telephone connection may cause some data to be incorrectly transmitted. If the computer does not "understand" a command that was automatically sent to the modem software or if the computer output is garbled, simply wait until the computer automatically returns to the PALISADES DOSE ASSESSMENT PROGRAM and try again.

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5.2.5   Choose option one (1), PRINT PALISADES MET TOWER DATA, to automatically log onto the Palisades meteorological tower, retrieve the last 15-minute averaging period, print the data, and return to the PALISADES DOSE ASSESSMENT PROGRAM. The printout should be in the form of the following example:

07/11/83	08:15	15-MIN AVERAGES							
PARAMETER	TEMP	STAB	DT	WS10	WD10	SIGQ	WS60	WD60	SIG6
UNITS	C	PASQ	C	MPH	DEG	DEG	MPH	DEG	DEG
07/11/83	08:15								
	24.2	A	-1.06	4.6	165	25.57	90	183	8.61
			DT						

Where:

TEMP   =   Air temperature °C

STAB   =   Pasquill Stability Category A through G

DT   =   Temperature difference (C°) between 60-meters and 10-meters

WS10   =   Wind speed in miles per hour at 10-meter level

WD10   =   Wind direction from which the wind is blowing (degrees) at 10-meter level

SIG1   =   Sigma theta (horizontal wind direction standard deviation in degrees) at 10-meter level

WS60   =   Wind speed in miles per hour at 60-meter level

WD60   =   Wind direction from which the wind is blowing (degrees) at 60-meter level

SIG6   =   Sigma theta (horizontal wind direction standard deviation in degrees) at 60-meter level

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a. Four-character "parameter status" codes may appear beneath individual data values, but these may be ignored. If there are at least 7-1/2 minutes of valid data during a 15-minute averaging period, the average will appear as a data value and should be considered valid, regardless of any parameter status code which may appear. If there are fewer than 7-1/2 minutes of valid data, the characters "NA" will appear in place of a data value, indicating insufficient valid data (ie, the parameter is not available for that averaging period). | e

b. For the STAB parameter, the parameter ID used to calculate the stability category will appear below the stability value. | e

5.2.6 **IF** Attachment 1, "Plant Site Meteorological System Work Sheet," is being used, **THEN** record readings for 10-meter wind speed (WS10) and 10-meter wind direction (WD10) (direction from which the wind is blowing). Mark 10 meters on the work sheet.

    a. If either of the 10-meter data values is not available (NA), use the corresponding 60-meter data values. Multiply 60-meter wind speed (WS60) by 0.77 and record data on the work sheet. Mark 60 meters on the work sheet.

    b. If neither the 10-meter nor the 60-meter wind data are available, go to procedure Emergency Implementing Procedure EI-6.8, "Backup and Supplemental Meteorology," to obtain meteorological data.

5.2.7 Record the Pasquill Stability Category on Attachment 1 if this work sheet is being used. Mark which parameter was used to calculate the stability category and record.

5.2.8 If a connection cannot be made to the Palisades meteorological tower, go to Procedure Emergency Implementing Procedure EI-6.8, "Backup and Supplemental Meteorology," to obtain meteorological data.

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5.2.9   Choose option three (3), PALISADES MET TOWER - OPTIONS MENU, from the
METEOROLOGICAL DATA MENU if meteorological data for prior periods of
specified time intervals are needed. The computer will automatically log onto the
Palisades meteorological tower and bring up an option menu. Follow the directions
on the screen and add any additional parameters to the AVRG command if desired.

    a.   To receive the average for a period ending at ddhhmm, where dd is a day of
the month, hh is the time in hours and mm is the time in minutes, add
"ddhhmm" to the AVRG command when prompted and press RETURN.
IF dd is not submitted, the default is the current day, minutes must be entered
in quarter hour increments, (ie, 00, 15, 30, and 45).

    b.   To receive the average for periods between two times, add
"ddhhmm ddhhmm" to the AVRG command when prompted and press
RETURN. Ensure the first ddhhmm corresponds to the earliest
time requested. The default for dd is the current date.

    c.   To receive the data from the last n averaging periods, where n is an integer,
add "-n" to the AVRG command when prompted and press RETURN.

    d.   If no additional parameters are desired to be added to the AVRG command
simply press the RETURN to receive the latest 15-minute average
meteorological data.

5.2.10   All results will be printed. The computer will automatically return to the PALISADES
DOSE ASSESSMENT PROGRAM when the session is terminated by choosing the
LOGOUT option.

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5.3   MODEM SOFTWARE CONFIGURATION

5.3.1   The modem software installed in the personnel computers and used to access the Palisades meteorological tower is already configured for use and should not need to be changed. The telephone numbers and modem parameters are:

NAME	NUMBER	BAUD	PDS	D
PALISADES MET TOWER	764-8288	300	N81	H
ALT PHN# FOR PAL MET TWR	764-8287	300	N81	H

5.3.2   If additional numbers are added to or deleted from the modem software dialing directory, it is important that the above two numbers remain as number one (1) and number two (2) in the dialing directory. The software that automatically accesses data from the Palisades meteorological tower will only attempt to dial the first two numbers in the modem software's dialing directory.

6.0   ATTACHMENTS AND RECORDS

6.1   ATTACHMENTS

6.1.1   Attachment 1, "Plant Site Meteorological System Worksheet"

6.2   RECORDS

Records generated by this procedure shall be filed in accordance with Palisades Administrative Procedure 10.46, "Plant Records." | e

7.0   SPECIAL REVIEWS

The scope of this procedure does not include activities that require a 50.59 review per Palisades Administrative Procedure 10.41, "Procedure Initiation and Revision." Therefore, changes to this procedure do not require a 50.59 review.

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The scope of this procedure includes activities that require a PRC review per Palisades Administrative Procedure 10.41, "Procedure Initiation and Revision." Therefore, changes to this procedure require a PRC review.

PLANT SITE METEOROLOGICAL SYSTEM WORKSHEET

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1. WS, Wind Speed = _____ mph   ( ) 10 meters
                                              ( ) 60 meters, *corrected

    *Multiply by 0.77

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2. WD, Wind Direction = _____ ° from   ( ) 10 meters
                                              ( ) 60 meters

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3. Stability Class = _____   ( ) DT Parameter
                                              ( ) SIG 1 Parameter
                                              ( ) SIG 6 Parameter

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Date: _____   Time: _____   Completed By: _____