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AFFECTED DOCUMENT IPEC EMERGENCY PLANNING PROCEDURES

DOC #	REV #	TITLE	INSTRUCTIONS

THE FOLLOWING PROCEDURE(S) HAS BEEN REVISED, PLEASE REMOVE YOUR CURRENT COPY AND REPLACE WITH ATTACHED UPDATED REVISION:

IP-EP-510 REVISION 8

& GENERAL RECORDS

EFFECTIVE DATE: 6/1/2020

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10CFR50.54(Q)(2) Review

Procedure/Document Number: IP-EP-510	Revision: 8
Equipment/Facility/Other: Indian Point Energy Center	
Title: Meteorological, Radiological, & Plant Data Acquisition System	

Part I. Description of Activity Being Reviewed (event or action, or series of actions that have the potential to affect the emergency plan or have the potential to affect the implementation of the emergency plan):

Procedure was revised, to reflect the requirement in the Post Unit 2 Shutdown Eplan (PSEP), as submitted to the NRC per LAR, license #NL-19-001. See attached matrix for changes made. Procedure will be effective on June 1, 2020,

Part II. Emergency Plan Sections Reviewed (List all emergency plan sections that were reviewed for this activity by number and title. IF THE ACTIVITY IN ITS ENTIRETY IS AN EMERGENCY PLAN CHANGE, EAL CHANGE OR EAL BASIS CHANGE, ENTER THE SCREENING PROCESS. NO 10CFR50.54(q)(2) DOCUMENTATION IS REQUIRED.

Part 1 Introduction:

Section A: Purpose

Part 2 Planning Standards and Criteria:

Section A: Assignment of Responsibility

Section B: Station Emergency Response Organization

Section H: Emergency Facilities and Equipment

Part III. Ability to Maintain the Emergency Plan (Answer the following questions related to impact on the ability to maintain the emergency plan):

1. Do any elements of the activity change information contained in the emergency plan (Section 3.0 Step 6)?
   YES ☐ NO ☒ **IF YES, enter screening process for that element**

2. Do any elements of the activity change an emergency classification Initiating Condition, Emergency Action Level (EAL), associated EAL note or associated EAL basis information or their underlying calculations or assumptions?
   YES ☐ NO ☒ **IF YES, enter screening process for that element**

3. Do any elements of the activity change the process or capability for alerting and notifying the public as described in the FEMA-approved Alert and Notification System design report?
   YES ☐ NO ☒ **IF YES, enter screening process for that element**

4. Do any elements of the activity change the Evacuation Time Estimate results or documentation?
   YES ☐ NO ☒ **IF YES, enter screening process for that element**

5. Do any elements of the activity change the Onshift Staffing Analysis results or documentation?
   YES ☐ NO ☒ **IF YES, enter screening process for that element**

10CFR50.54(Q)(2) Review

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Part IV. Maintaining the Emergency Plan Conclusion The questions in Part III do not represent the sum total of all conditions that may cause a change to or impact the ability to maintain the emergency plan. Originator and reviewer signatures in Part V document that a review of all elements of the proposed change have been considered for their impact on the ability to maintain the emergency plan and their potential to change the emergency plan.

1. Provide a brief conclusion that describes how the conditions as described in the emergency plan are maintained with this activity.
2. Check the box below when the 10CFR50.54(q)(2) review completes all actions for all elements of the activity – no 10CFR50.54(q)(3) screening or evaluation is required for any element. Otherwise, leave the checkbox blank.

☒ I have completed a review of this activity in accordance with 10CFR50.54(q)(2) and determined that the effectiveness of the emergency plan is maintained. This activity does not make any changes to the emergency plan. No further actions are required to screen or evaluate this activity under 10CFR50.54(q)(3).

Per Post Shutdown Emergency Plan (PSEP), Unit 3 CCR will be the active/running plant and Unit 2 will be at shut down. The changes made to this procedure (see attached matrix) reflects this requirement of the Post Unit 2 Shutdown Eplan, as submitted to the NRC (license # NL-19-001). The NRC has approved the PSEP per RA-20-040.

A review of this activity in accordance with 10 CFR 50.54(q)(2) has been completed and determined that the effectiveness of the PSEP is maintained. This revision aligns the procedure with the protocols of the post Unit 2 shutdown. None of the changes affect the ability to perform classifications, notifications, or PARs, it does not affect activation or staffing of the ERO, and all planning standard requirements are maintained. The changes made do not require a change to the Emergency Action Level scheme, On-shift Staffing study or the PSEP.

No further actions are required to screen or evaluate this activity under 10 CFR 50.54(q)(3).

Part V. Signatures:

Preparer Name (Print) Rebecca A. Martin	Preparer Signature Rebecca A Martin	Date: 5/14/2020
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Timothy Garvey Nuclear EP Project Manager	Reviewer Signature Rebecca A Martin for T. Garvey Approved Per Telecom	Date: 5/14/2020
Approver Name (Print) Frank Mitchell Emergency Planning Manager or designee	Approver Signature F L Mitchell	Date: 5/15/2020

IP-EP-510 Revision 8
REVISION MATRIX

Change No.	Page/Section	Previous Version	New Version	Editorial Change	Effect on 10 CFR 50.47(b) Planning Standards or NUREG-0654 program elements? Justify if NO.
1.	Page 5 Section 5.1.2	5.1.2.1 EOF/AEOF: Call Unit 2 or 3 CR, identify yourself and ask for the 10m met tower elevation wind speed, wind direction and Pasquill Category.	5.1.2.1 EOF/AEOF: Call Unit 3 CR, identify yourself and ask for the 10m met tower elevation wind speed, wind direction and Pasquill Category. Unit 2 CR may also be called; however, they may not be readily available.	N	N - this section discusses a back-up method to the primary system to obtain 10m MET data. No changes are made other than if they try to contact Unit 2 for data, they may not be available with limit resources as per Post Shutdown Emergency Plan, which was approved by the NRC per RA-20-040.
2.	Page 5 Section 5.1.2	5.1.2.2 CR: Obtain data from MRPDAS using a personal computer (see 5.1.1.2) or call the other unit's Control Room for MET data.	CR: Obtain data from MRPDAS using a personal computer (see 5.1.1.2) or call the other unit's Control Room for MET data. Unit 2 may not be readily available.	N	N - this section discusses a back-up method to the primary system to obtain 10m MET data. No changes are made other than if they try to contact Unit 2 for data, they may not be available with limit resources as per Post Shutdown Emergency Plan, which was approved by the NRC per RA-20-040.

Attachment 9.1

Emergency Planning Document Change Checklist Form

(All sections must be completed, N/A or place a check on the line where applicable)

Section 1

Doc/Procedure Type:	Administrative ☐ Implementing ☒ EPLAN ☐ N/A ☐
Doc/Procedure No:	IP-EP-510
Doc/Procedure Title:	Meteorological, Radiological & Plant Data Acquisition
New revision number:	8
Corrective Action:	Yes ☒ No ☐ N/A ☐ CR#: OL-OLI-2018-00090 CA 18
Effective date:	June 1, 2020

Section 2

Change Description

1. Ensure the following are completed, or are not applicable and are so marked:
   a. 50.54q ☒ N/A ☐
   b. EN-FAP-OM-023 ☒ N/A ☐
   c. IP-SMM- AD-102 ☒ N/A ☐
   d. OSRC ☐ N/A ☒
   e. NRC Transmittal (within 30 days) ☐ N/A ☒
2. List any other documents affected by this change: N/A
3. Transmittals are completed: ☐ N/A ☒ Date: 5/19/2020
4. Ensure the proper revision is active in eB Ref. Lib.: ☒ N/A ☐
5. Approved doc/procedure delivered to Doc. Control for distribution: ☐ N/A ☒ Date: 5/20/2020
6. Position Binders updated: ☐ N/A ☒ Date: 6/1/2020
7. Copy of EPDCC placed in EP file: ☐ N/A ☒ Date: _____
8. Supporting documentation is submitted as a general record in eB Ref. Lib.: ☐ N/A ☒ Date: 5/20/2020
9. Word files are moved from working drafts folder to current revision folder in the EP drive: ☐ N/A ☒ Date: 6/1/2020

ATTACHMENT 10.2 IPEC PROCEDURE REVIEW AND APPROVAL

(Page 1 of 1)

Procedure Title: Meteorological, Radiological & Plant Data Acquisition System

Procedure No: IP-EP-510 Existing Rev: 7 New Rev: 8 DRN/EC No: DRN-20-00310

Procedure Activity (MARK Applicable)	☐ Converted To IPEC, Replaces:	**Temporary Procedure Change (MARK Applicable)**
☐ NEW PROCEDURE ☐ GENERAL REVISION ☒ PARTIAL REVISION ☐ EDITORIAL REVISION ☐ VOID PROCEDURE ☐ SUPERSEDED	Unit 1 Procedure No: _____ Unit 2 Procedure No: _____ Unit 3 Procedure No: _____	☐ EDITORIAL Temporary Procedure Change ☐ ADVANCE Temporary Procedure Change ☐ CONDITIONAL Temporary Procedure Change Terminating Condition: _____
☐ RAPID REVISION	Document in Microsoft Word: ☐ Yes ☐ No	☐ VOID DRN/TPC No(s): _____

Revision Summary ☐ N/A - See Revision Summary Matrix

Implementation Requirements

Implementation Plan? ☐ Yes ☒ No Formal Training? ☒ Yes ☐ No Special Handling? ☐ Yes ☒ No

RPO Dept: Emergency Planning Writer **(Print Name/ Ext/ Sign)**: Rebecca A. Martin/x7106/ Rebecca A Martin

Review and Approval (Per Attachment 10.1, IPEC Review And Approval Requirements)

1. ☒ Technical Reviewer: Kevin Robinson / _____ 5-14-2020
   (Print Name/ Signature/ Date)
2. ☐ Cross-Disciplinary Reviewers:
   Dept: _____ Reviewer: _____
   (Print Name/ Signature/ Date)
   Dept: _____ Reviewer: _____
   (Print Name/ Signature/ Date)
3. ☒ **RPO- Responsibilities/Checklist**: F. Mitchell _____ 5/15/2020
   (Print Name/ Signature/ Date)
   - ☒ PAD required and is complete (PAD Approver and Reviewer qualifications have been verified)
   - ☐ Previous exclusion from further LI-100 Review is still valid
   - ☐ PAD not required due to type of change as defined in 4.6
4. ☐ Non-Intent Determination Complete: _____
   (Print Name/ Signature/ Date)

   NO change of purpose or scope
   NO reduction in the level of nuclear safety
   NO voiding or canceling of a procedure, unless requirements are incorporated into another procedure or the need for the procedure was eliminated via an alternate process.
   NO change to less restrictive acceptance criteria
   NO change to steps previously identified as commitment steps
   NO deviation from the Quality Assurance Program Manual
   NO change that may result in deviations from Technical Specifications, FSAR, plant design requirements or previously made commitments.
5. ☐ On-Shift Shift Manager/CRS: _____
   (Print Name/ Signature/ Date)
6. ☐ User Validation: User: _____
7. ☐ Special Handling Requirements Understood: _____

CONTROLLED

Meteorological, Radiological & Plant Data Acquisition System

Prepared by:	Rebecca A. Martin	Rebecca A Martin	5/12/2020
	Print Name	Signature	Date
Approval:	Frank J. Mitchell	F J Mitchell	5/15/2020
	Print Name	Signature	Date

Effective Date: June 1, 2020

This procedure excluded from further LI-100 reviews.

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Meteorological, Radiological & Plant Data Acquisition System

1.0 PURPOSE

1.1 This procedure describes the methods available to obtain meteorological, Reuter Stokes and selected plant parameter data in the Control Rooms (CRs), the Emergency Operating Facility (EOF) and/or the Alternate Emergency Operating Facility (AEOF).

2.0 REFERENCES

NONE

3.0 DEFINITIONS

Meteorological, Radiological & Plant Data Acquisition System (MRPDAS) – system that provides meteorological, radiological and certain plant parameter data i.e.: R-27, R-25/26, VC Pressure and VC Temperature.

4.0 RESPONSIBILITIES

The Unit 2 and Unit 3 Control Room, and the EOF Radiological Assessors are responsible for the implementation of this procedure.

5.0 DETAILS

5.1 Obtaining Meteorological Data:

5.1.1 Primary Methods:

5.1.1.1 Control Room (CR):

a. Use the 10m elevation meteorological tower display panel to obtain wind speed, wind direction and Pasquill Category.

5.1.1.2 Emergency Operations Facility (EOF)/Alternate EOF (AEOF):

a. Use MRPDAS to access the information from the 10m met tower elevation - wind speed, wind direction and Pasquill Category.

b. From the IPEC Sharepoint Website, pull down the Applications menu.

c. Double-click the MRPDAS icon to access the MRPDAS program (Plant screen appears).

d. Select one of the following from left column under "Entergy IPEC": "Drill Data" or "Live Data"

e. Select – "Common" - "Meteorological Data"
Select – "Primary MET Display"

f. Read the reports from the display; or click the printer icon displayed in the top left corner of the Primary MET Display screen. Click "Print" button in the "Print" window.

g. Obtain the latest measured MET data every 15 min. and obtain weather forecast from MRPDAS and/or Weather Bureau.

1. Update the MET Data Status Board to display the correct data.

2. Notify the Radiological Assessment Coordinator of any significant changes to the MET data.

h. To exit MRPDAS, click on the red **X** at the top right of the screen.

5.1.2 Back–up methods:

5.1.2.1 EOF/AEOF: Call Unit 3 CR, identify yourself and ask for the 10m met tower elevation wind speed, wind direction and Pasquill Category. Unit 2 CR may also be called; however, they may not be readily available.

5.1.2.2 CR: Obtain data from MRPDAS using a personal computer (see 5.1.1.2) or call the other unit's Control Room for MET data. Unit 2 may not be readily available.

5.1.2.3 Obtain data from Offsite Weather Services

a. Use the Emergency Telephone Directory to locate the offsite weather services phone numbers.

b. AccuWeather - use personal computer to log on to offsite weather services web. Select AccuWeather: www.accuweather.com and enter "Buchanan, NY" or "10511" in Search Bar and click "ENTER".

c. National Weather Service (NWS) - select National Weather Service: www.weather.gov and enter "Buchanan, NY" or "10511" for "Local Forecast, City, St". Click "GO".

5.1.2.4 Use Attachment 9.2 to estimate Pasquill Category by using the temperature change between 60 m and 10 m.

5.1.2.5 Use Attachment 9.3 to estimate Pasquill categories based on weather conditions in case the met tower data is unavailable.

5.2 Obtaining Reuter Stokes and Selected Plant Parameter Data

5.2.1 From the IPEC Sharepoint Website, pull down the Applications menu.

5.2.2 Double-click the MRPDAS icon to access the MRPDAS program (Plant screen appears).

5.2.3 Select one of the following from left column under "Entergy IPEC": "Drill Data" or "Live Data".

5.2.4 Select "Common".

5.2.5 Select "Reuter Stokes Data" and "5 Mile Radius Map".

5.2.6 Select "Data Summary Report" (see Attachment 9.1 for example report) under "Common" or other Plant Parameter reports under "Unit 2" or "Unit 3".

6.0 INTERFACES

IP-EP-310, Dose Assessment

7.0 RECORDS

NONE

8.0 REQUIREMENTS AND COMMITMENT CROSS-REFERENCE

NONE

9.0 ATTACHMENTS

9.1 EXAMPLE: MRPDAS METEOROLOGICAL DATA REPORT

9.2 PASQUILL CATEGORY VS TEMPERATURE CHANGE BETWEEN 60m AND 10m

9.3 ESTIMATION OF PASQUILL CATEGORY

Attachment 9.1

EXAMPLE: MRPDAS METEOROLOGICAL DATA REPORT

Sheet 1 of 1

NOTE:
All "9s" in a data field indicates the data was not collected.

*** DAILY SUMMARY REPORT ***
*** DATE: 05/29/2002 07:10 ***

TIME HRMN (EST)	*** MET TOWER DATA (M/S,DEG FROM,F) *** SPD10M	SPD60M	DIR10M	DIR60M	DT60	DT122	PC
0700	2.2	3.3	2	15	-1.2	-2.1	D

*** UNIT #2 PLANT PARAMETER DATA ***

VC P948A (PSIG)	VC P948B (PSIG)	VC T1203 (F)	VC R-25 (R/HR)	VC R-26 (R/HR)	VENT R-27 (UCI/SEC)
-.2	.0	1.02E+02	<=1.00E+00	<=1.00E+00	2.53E+02

*** UNIT #3 PLANT PARAMETER DATA ***

CONT (PSIG)	CONT (F)	DOME (R/HR)	RAD VENT (UCI/SEC)
-.1	94	<=1.0E+00	1.0E+01

*** ATMOSPHERIC DISPERSION ***

SITE BOUNDARY DIST= .6 MILES XU/Q (1/M2)	2 MILES XU/Q (1/M2)	5 MILES XU/Q (1/M2)	10 MILES XU/Q (1/M2)
1.0E-04	1.9E-05	5.1E-06	2.1E-06

*** OFFSITE MONITOR DATA ***

MON NO	1	2	3	4	5	6	7	8
SECTOR	N	NNE	NE	ENE	E	ESE	SE	SSE
RAD (MR/HR)	3.4E-03	6.9E-03	6.8E-03	7.0E-03	6.3E-03	7.3E-03	7.9E-03	7.4E-03

MON NO	9	10	11	12	13	14	15	16
SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW
RAD (MRHR)	8.5E-03	6.0E-03	5.9E-03	8.5E-03	1.1E-02	6.5E-03	7.0E-03	8.4E-03

*** METEOROLOGICAL FORECAST ***

HOUR	SPEED (MPH)	DIRECTION (FROM)	RAIN	STABILITY
17 0	5.8	130	YES	D
18 0	4.9	50	YES	D
19 0	4.5	30	YES	D
20 0	4.0	0	YES	D
21 0	3.6	350	NO	D
22 0	3.6	340	NO	D

Attachment 9.2

PASQUILL CATEGORY
VS
TEMPERATURE CHANGE BETWEEN 60m AND 10m

Sheet 1 of 1

PASQUILL CATEGORY	TEMPERATURE CHANGE (°F)
A	<-1.74
B	-1.74 to <-1.56
C	-1.56 to < -1.37
D	-1.37 to <-0.46
E	-0.46 to <+1.37
F	+1.37 to ≤+3.66
G	>+3.66

Attachment 9.3

ESTIMATION OF PASQUILL CATEGORY

Sheet 1 of 1

Use this attachment to determine the Pasquill Category in the absence of both measured vertical temperature differences AND the standard deviation (sigma theta) for horizontal wind direction.

DEFINITION OF PASQUILL STABILITY CATEGORY	
PASQUILL CATEGORY	**STABILITY CONDITIONS**
A	Extremely unstable
B	Moderately unstable
C	Slightly unstable
D	Neutral
E	Slightly stable
F	Moderately stable
G	Extremely stable

Pasquill category can be estimated by observing or estimating the time of day, solar radiation, cloudiness, and wind speed.

KEY TO STABILITY CATEGORIES					
Surface Wind Speed (m/s)	**DAYTIME**			**NIGHT**	
	Incoming Solar Radiation (Insolation)			**Cloudiness**	
	Clear Sky	**Partly Cloudy**	**Overcast**	**Thinly Overcast or >4/8 Low Cloud**	**Clear to Partly Cloudy**
<2	A	A-B	B	E-F	G
2-3	A-B	B	C	E	F
4-5	B	B-C	C	D	E
5-6	C	C-D	D	D	D
>6	C	D	D	D	D

General Definitions

1. Daytime is considered as one hour after sunrise to one hour before sunset.
2. (a) Clear sky - less than 20 percent cloud cover.
   (b) Partly cloudy - 20 to 80 percent cloud cover.
   (c) Overcast - 80 to 100 percent cloud cover.