

X

**INDIANA & MICHIGAN**  
**ELECTRIC COMPANY**  
**DONALD C. COOK NUCLEAR PLANT**

**Instruction or Procedure Temporary Sheet**

<p>This temporary sheet applies to <u>INITIAL DOSE ASSESSMENTS (GAS200)</u> Instruction or Procedure No. <u>PDR 2080 EPR.006</u> Revision No. <u>3</u></p>	<p>TEMPORARY SHEET NO.  <u>2</u></p>
<p>The following change ( <input checked="" type="checkbox"/> ) new requirement (    ) shall be instituted effective (Date) <u>1-10-83</u> <span style="float: right;"><u>79 1 OF 3</u></span></p> <p style="margin-top: 20px;"><u>REPLACE PAGE 1 OF 17 AND PAGE 2 OF 17</u> <u>WITH ATTACHED PAGE 2 OF 3 AND PAGE</u> <u>3 OF 3 RESPECTIVELY. THIS CHANGE</u> <u>CHANGES STEP 4.1.3 TO TAKE WIND</u> <u>DATA FROM THE 150 FOOT ELEVATION.</u></p> <p style="margin-top: 20px;"><u>REASON FOR CHANGE:</u> <u>THIS CHANGE SUPERCEDES TP-1 AS A</u> <u>RESULT OF INCORRECT TYPE SIZE</u> <u>USED.</u></p> <div style="border: 1px solid black; padding: 10px; margin: 20px auto; width: fit-content; text-align: center;"><p style="font-size: 1.5em; margin: 0;">DCR</p><p style="margin: 0;">JAN 12 1983</p></div>	
<p>This change should be made a permanent revision to the Instruction or Procedure:</p> <p><input checked="" type="checkbox"/> YES      <input type="checkbox"/> NO      <input type="checkbox"/> NOT KNOWN, additional review required</p>	
<p>Expiration Date: <u>PROCEDURE REVISION</u> Originator: <u>Thomas E. Nelson</u> Management Staff: <u>Michael Beggs</u> Senior Reactor Operator: <u>C. E. Murphy</u> PNSRC <u>E. J. Townley</u> Date <u>1-11-83</u> Plant Manager <u>W. J. Murphy</u> Date <u>1-11-83</u></p>	<p>Standard Dist. List No.: <u>1</u> Distribution: _____</p>

Form No. 4330

REVISED 7/78

WHITE	- ORIGINAL
CANARY	- ORIGINATOR COPY
PINK	- WORKING COPY

FORM NO. 4330A REV 2  
8302080042 830127  
PDR ADOCK 05000315  
PDR



INDIANA & MICHIGAN ELECTRIC COMPANY  
DONALD C. COOK NUCLEAR PLANT

INITIAL DOSE ASSESSMENTS (GASEOUS)

1.0 OBJECTIVES

This procedure provides the Shift Supervisor/On-Site Emergency Coordinator (SS/OSEC) with a method to initially assess potential off-site dose effects or unplanned radioactive gaseous releases.

2.0 RESPONSIBILITIES

2.1 Upon a projected or actual unplanned radioactive gaseous release, and prior to activation of the Technical Support Center, it is the SS/OSEC's responsibility to make off-site dose projections. The SS/OSEC shall also verify the projected values by organizing a Radiation Monitoring Team and sending them to appropriate off-site area.

2.2 Technical Support Center (TSC) personnel assume the responsibilities of 2.1 upon TSC activation.

This procedure is applicable prior to activation of the Technical Support Center whenever there is a significant projected or unplanned release of gaseous radioactivity.

3.0 APPLICABILITY

This procedure is applicable prior to activation of the Technical Support Center whenever there is a significant projected or unplanned release of gaseous radioactivity.

4.0 INSTRUCTIONS

4.1 Obtain data necessary to make off-site dose projections.

4.1.1 R-15, R-26, and/or R-33 radiation monitor readings.

4.1.1.1 If R-26 is off-scale high, obtain a radiation reading at 6" from the unit vent sample line.

4.1.1.2 If R-15 or R-33 is off-scale high, obtain a radiation reading at 6" from the GSLO or SJAE exhaust line.

4.1.2 Appropriate vent flow rate (Unit Vent, GSLO, or SJAE).

4.1.3 Wind velocity and direction from the 150 foot elevation.

TP-2



4.1.4 Determine PASCALL Category as per the table below:

$\Delta T = (T@180\text{ft.} - T@30\text{ft.})^\circ\text{C}$	PASCALL CATEGORY
< - .9	A
-.9 to - .8	B
-.8 to - .7	C
-.7 to - .2	D
-.2 to + .7	E
+.7 to +1.8	F
> +1.8	G

4.2 If meteorological instrumentation is inoperable use Exhibit G to estimate wind speed and PASCALL Category. Obtain wind direction from the Visitors Center or State Police.

4.3 Select appropriate graph(s) to use and fill in data blanks.

- 4.3.1 R-26 On-Scale; Exhibit A
- 4.3.2 R-26 Off-Scale; Exhibit B
- 4.3.3 R-33 On-Scale; Exhibit C
- 4.3.4 R-15 On-Scale; Exhibit D
- 4.3.5 R-15, R-33 Off-Scale; Exhibit E
- 4.3.6 Waste Gas Decay Tank Release; Exhibit F

NOTE: R-15 On-Scale will always result in less than 1 mR/hr off-site. With steam generator tube ruptures, readings would be expected also on R-33. The dose associated with the release from a steam generator tube rupture will be the sum of the doses calculated from R-15 and R-33.

NOTE: The ability to predict dose rate in the event of a steam generator tube rupture is dependent upon the release being via R-33 and R-15. If releases are being made via the safeties or steam generator PROV's because of the loss of condenser vacuum or equipment failure, there is not quick method to calculate dose rate. Dose rate should then be measured at the site boundary as soon as possible by dispatching a monitoring team to monitor downwind at the site boundary.

4.4 Complete the appropriate graph(s) to estimate off-site dose rate as follows:

- 4.4.1 Draw a straight line connecting the data points on scales (1) and (2).
- 4.4.2 Draw a straight line connecting the intersection of scale (3), from step 4.4.1, with the data point on scale (4).
- 4.4.3 Connect the intersection of scale (5), from step 4.4.2, with the data point on scale (6).
- 4.4.4 Read the 610 meter site boundary dose rate from the intersection of scale (7), caused by Step 4.4.3.



INDIANA & MICHIGAN POWER COMPANY  
DONALD C. COOK NUCLEAR PLANT

PLANT MANAGER PROCEDURE

Index

Identification Number	Title	Revision No. And Date	Comments
PMP 2080 EPP.001	Emergency Plan Activation and Condition Classification	Revision 3 10-12-82	
EPP.002	Unusual Event	CANCELLED 10-29-81	
EPP.003	Alert	CANCELLED 10-29-81	
EPP.004	Site Emergency	CANCELLED 10-29-81	
EPP.005	General Emergency	CANCELLED 10-29-81	
EPP.006	Initial Dose Assessment (Gaseous)	Revision 3 8-27-82	TP-1, 1-4-83 EXP NA TP-2, 1-10-83 Exp NA
EPP.007	Initial Release Assessments (Liquid)	Revision 0 4-1-81	TP-1, 2-23-82 Exp NA
EPP.008	Initiating Manning of Emergency Response Facilities & Calling Off-Duty Personnel	Revision 3 10-12-82	
EPP.009	Fire Emergency Guidelines	Revision 1. 6-15-82	
EPP.010	Toxic Gas Release Guidelines	Revision 1 6-2-82	
EPP.011	Natural Emergency Guidelines	Revision 1 11-15-82	
EPP.012	Initial Off-Site Notification	Revision 2 10-19-82	