

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

PROCEDURE COVER SHEET

Procedure No. PMP 2080 EPP.010

Revision No. 1

TITLE  
TOXIC GAS RELEASE GUIDELINES

SCOPE OF REVISION

Rev. 1 - This procedure was revised to incorporate specific guidelines to determine if a toxic gas condition exists. Incorporated are two reference documents.

DCR  
JUN 04 1982

SIGNATURES

	ORIGINAL	Rev. 1	REV. 2	Rev. 3
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INDIANA & MICHIGAN ELECTRIC COMPANY  
DONALD C. COOK NUCLEAR PLANT

TOXIC GAS RELEASE GUIDELINES

1.0 OBJECTIVES

This procedure provides the actions to mitigate unplanned toxic gas release conditions to improve plant and personnel safety. Toxic gases may originate from on or off site.

2.0 RESPONSIBILITIES

The Shift Supervisor is responsible for directing initial mitigating actions. The Plant Chemical Supervisor will assume responsibility for directing mitigating actions when he arrives on site. He is responsible for determining the size and personnel required for the Reentry and Rescue teams.

3.0 APPLICABILITY

- 3.1 The greatest sources of toxic gases are most likely from off site. All steps in this procedure may not apply for this case. For releases originally off site, DCCNP personnel may be called upon to assist the Berrien County Sheriff's Department or the Michigan State Police. When called upon to assist off site agencies, DCCNP response shall be limited to technical support only.
- 3.2 The determination that a toxic gas release situation exists may be made by either on site or off site personnel. If the determination is made by off site personnel, they will identify the toxic substance and determine or establish the toxic limits. If the determination is made by on site personnel, they should clearly define or state the toxicity limits for the material in question and what reasonable chance there is of such a concentration existing.
- 3.3 To determine if a toxic gas situation exists, the following steps should be taken:
  - 3.3.1 Using "Toxic and Hazardous Industrial Chemicals Safety Manual (for Handling and Disposal with Toxicity and Hazard Data)" - International Technical Information Institute, as a reference, determine if a toxic level of the chemical is listed.
  - 3.3.2 If a toxic level is listed, determine if site conditions meet or exceed these limits.

3.3.3 If no toxic levels (for man) are listed, then refer to the "NIOSH/OSHA Pocket Guide to Chemical Hazards". Half the IDLH (immediately dangerous to life and health) levels will then be assumed to be the toxic levels.

3.4 If the spill or near spill involves a chemical that is not listed as toxic or exists at a concentration that is not above toxic levels (see 3.3 above), implementation of this Emergency Plan procedure is not warranted at this time. The situation should be monitored closely to detect any changes that would affect this decision. In such events, appropriate actions (cleanup, partial evacuation, work restriction, or respiratory protection use) should be taken to control or eliminate the hazard under the direction of the Plant Chemical Supervisor or other qualified personnel.

4.0 INSTRUCTIONS #OPTIONAL CHECKLIST ENTRY PROVIDED

4.1 The Shift Supervisor upon receiving report of toxic gas shall:

#4.1.1 Assume the role of On Site Emergency Coordinator.

#4.1.2 Direct control room operators to activate the control room pressurization system whenever a toxic or unknown gas is detected in the control room by one or more of the human senses.

NOTE: THE CONTROL ROOM SHALL REMAIN ISOLATED UNTIL THE SOURCE IS FOUND OR A DETERMINATION IS MADE THAT THE HAZARD NO LONGER EXISTS. (SEE ATTACHMENT 1 TO AEP NRC: 00398C.)

#4.1.3 Activate a Reentry and Rescue Team (see 2.0 above).

4.1.4 Direct the verification of the existence of a toxic gas release. This includes identifying the toxic substance if possible, determining the concentration of the toxic substance if possible, determining the extent that the toxic gas plume has affected site areas or personnel, and identifying the source of the toxic gas. Care should be exercised to prevent unnecessary exposure to any potentially toxic material.

#4.1.5 Maintain surveillance over the situation, direct all required emergency operations, and diagnose extent of emergency.

- 4.1.6 Initiate protective actions, as necessary, per PMP 2081.EPP.004.
- 4.1.7 Prepare for site evacuation, if indicated, per PMP 2081.EPP.005.
- #4.1.8 Escalate or terminate the emergency based on RRT reports.
- 4.2 The Chemical Supervisor, as Reentry and Rescue Team (RRT) Leader, (upon notification) shall:
  - 4.2.1 Proceed to the access control area or the scene of the leak as directed and assume command of the RRT and operations.
  - 4.2.2 Issue equipment and brief team members.
  - 4.2.3 When team reaches effective strength, initiate movement to location(s) of release.
  - 4.2.4 Direct rescue and personnel safety operations at location of toxic gas release.
  - 4.2.5 Respond to instructions from the OSEC.
  - 4.2.6 Coordinate operations of Reentry and Recovery Team as necessary.
  - 4.2.7 Take actions as appropriate to protect life and prevent injury, e.g., proceed downwind to alert personnel.
  - 4.2.8 Report personnel safety status and the need for additional support to the OSEC.
- 4.3 The Chemical Supervisor shall ensure that personnel:
  - 4.3.1 Take actions to reduce or shut off escaping gas.
  - 4.3.2 Take actions to isolate inhabited areas from gas, e.g. close building intake vents.
  - 4.3.3 Direct the restoration of integrity of the toxic gas piping and storage containers.
  - 4.3.4 Coordinate operations with the Reentry and Rescue Team.
  - 4.3.5 Report repair and damage control status and whether situation is escalating or under control.

TOXIC GAS RELEASE GUIDELINES (SOE/OSEC)

4.1.1	Role of On Site Emergency Coordinator Assumed:	<u>          /          </u> Initials & Time
4.1.2	Control Room Directed to consider isolation:	<u>          /          </u> Initials & Time
4.1.3	Reentry and Rescue Team Activated:	<u>          /          </u> Initials & Time
4.1.5	Exact nature and extent of gas release diagnosed:	<u>          /          </u> Initials & Time
4.1.8	Emergency Terminated: _____	<u>          /          </u> Initials & Time
	Emergency Escalated: _____	
	Refer to: _____	<u>          /          </u> Initials & Time

INDIANA & MICHIGAN POWER COMPANY  
DONALD C. COOK NUCLEAR PLANT

PLANT MANAGER PROCEDURE

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Identification Number	Title	Revision No. And Date	Comments
PMP 2080 EPP.001	Emergency Plan Activation and Condition Classification	Revision 2 4-27-82	TP-1,5-27-82 Exp NA
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)	Rev. 2 4-27-82	
EPP.007	Initial Release Assessments (Liquid)	Revision 0 4-1-81	TP-1,2-23-82 Exp NA
EPP.008	Calling Off-Duty Plant Personnel	Revision 1 4-29-82	TP-1,4-30-82 Exp N/A
EPP.009	Fire Emergency Guidelines	Revision 0 4-1-81	
EPP.010	Toxic Gas Release Guidelines	Revision 1 6-2-82	
EPP.011	Natural Emergency Guidelines	Revision 0 4-1-81	
EPP.012	Initial Off-Site Notification	Revision 1 4-27-82	



