50-387 Superseded pages: Per Rev 2 to EPIP
W/LTR 84/05/01

CONTROLLED

Revised by P.S. 5/16/89

!,print 103
!,end

8405070298

TABLE OF CONTENTS
EMERGENCY PLAN IMPLEMENTATION PROCEDURE MANUAL

FORM NUMBER	TITLE	REVISION	EFFECTIVE DATE
EP-IP-001	Emergency Classification	1	6/28/83
EP-IP-002	Emergency Management Notification	3	03/13/84
EP-IP-003	Emergency Management Responsibilities	0	6/16/82
EP-IP-006	Search/Rescue/First Aid	0	6/16/82
EP-IP-007	Personnel Assembly and Accountability	3	01/27/84
EP-IP-008	Natural Occurrences	0	6/16/82
EP-IP-009	Emergency Off-Site Dose Calculations	2	10/14/83
EP-IP-010	In-Plant Emergency Monitoring	0	6/16/82
EP-IP-011	Security Contingency	1	12/12/83
EP-IP-012	On-site Emergency Monitoring	2	02/15/84
EP-IP-013	Off-site Emergency Monitoring Teams	3	01/24/84
EP-IP-014	Personnel and Vehicle Containment Surveys	1	2/22/83
EP-IP-015	Emergency Access	1	12/18/83
EP-IP-016	Damage Control	0	6/16/82
EP-IP-017	Toxic Material	1	04/19/84
EP-IP-018	Emergency Call-in and Communications	1	8/31/83
EP-IP-019	Management of Off-site Emergency Monitoring	1	9/08/83
EP-IP-021	Site Emergency Evacuation	2	3/18/83
EP-IP-022	Shift Turnover During an Emergency	0	12/28/83

FORM NUMBER	TITLE	REVISION	EFFECTIVE DATE
EP-IP-027	Activation of Restoration Organization	0	6/16/82
EP-IP-028	Downgrade and Termination	0	6/16/82
EP-IP-029	Activation of TSC	0	6/16/82
EP-IP-030	Activation and Functional Operation of Emergency Facility and Transfer of Control From the Technical Support Center	3	03/09/84
EP-IP-031	Public Information Emergency Procedures	0	6/16/82
EP-IP-032	General Office Activation	0	6/16/82
EP-IP-033	Dose Assessment and Protective Actions	0	6728/82
EP-IP-034	Reactor Building Sample Station Emergency Sampling	3	01/06/84
EP-IP-035	Emergency Vent Monitor Sampling	2	12/28/83
EP-IP-038	Reconstruction and Accident Close out	0	6/16/82
EP-IP-041	Fire Emergencies	1	2/28/83
EP-IP-042	In-Plant and EOF Chemistry Lab Emergency Preparation	2	01/06/84
EP-IP-043	Pass Small Volume Liquid Sample	3	12/28/83
EP-IP-044	Emergency Environmental Sampling	3	01/24/84
EP-IP-045	Pass 10-ML Gas Sample	4	02/29/84
EP-IP-046	Pass Iodine/Particualte Sample	3	12/28/83
EP-IP-047	Pass Large Liquid/Dissolved Gas Sample	3	12/28/83
EP-IP-048	Estimation of Core Damage During an Emergency	0	9/17/82
EP-IP-051	Radioactive Sample Transport During an Emergency	0	03/29/84
EP-IP-052	Backup EOF Activation	0	02/15/84

FORM NUMBER	TITLE	REVISION	EFFECTIVE DATE
EP-IP-053	Emergency Liquid Release Sampling and Calculations	0	03/09/84
EP-IP-054	Offsite Monitoring Vehicle Callout	0	01/24/84
EP-IP-101	Inventory, Inspection, Operational Testing and Calibration of Emergency Equipment and Supplies	1	10/14/83
EP-IP-102	Surveillance Testing of Emergency Communications Equipment	1	10/14/83
EP-IP-103	Review, Update, Control, and Distribution of the SSES Emergency Planed and Emplementing Procedures	1	11/11/83

CONTROLLED

TEMPORARY CHANGE APPROVAL FORM

Temporary Chg. No. 82-2101
Temporary Change Page 1 of 1

A. Procedure No. EP-IP-014; Rev. 0
Title Personnel and Vehicle Contamination Surveys

B. Requested Change Add Action Step B.1.5 to Attachment B, Page 6 of 9:
B.1.5 Complete Form HP TP-624-1, Personnel Contamination Report, and transmit results to TSC Radioman or EOF communicator.
(HP-TP-624-1 should be attached)

C. Reason For Change Provide method for communicating contamination reports back to the ERF during an emergency. (NRC Appendix B requirement)

Does this change alter the intent of the procedure? Yes ___ No ✓
Does this change identify an unreviewed safety question? Yes ___ No ✓
(See Reverse side of this page for procedure non-intent change and unreviewed safety question. If "yes" to either question, do not issue change without PORC review/Supt. approval, section 6.11.3)

D. Recommended for permanent status Yes ✓ No ___

E. Expiration Date N/A "N/A" for permanent status. 45-60 days for temporary status

F. Initiator J M Reed CEW Title EP Specialist Date 10/14/82

G. Temporary Change Authorization

R M Bastl / 10/15/82
Shift Supervision / Date

[signature] / 10/25/82
Management Member / Date

H. Temporary Change Approval

Approved as written for permanent status Yes ___ No ___

_____ / _____
PORC Chairman/Section Head (As Applicable) / Date

PORC Review _____ / _____
(If Applicable) Mtg. No. / Date

_____ / _____
Superintendent of Plant / Date

PROCEDURE COVER SHEET

PENNSYLVANIA POWER & LIGHT CO. SUSQUEHANNA STEAM ELECTRIC STATION	
PERSONNEL AND VEHICLE CONTAMINATION SURVEYS	EP-IP-014 Revision 1 Page 1 of 9
Effective Date 2-22-83	Expiration Date 2-22-85 Revised Expiration Date _____

CONTROLLED

Prepared by _____ Date 10/14/82

Reviewed by _____ Date 10/15/82

PORC Review Required Yes (✓) No ( )

Approved by _____ Date 2/7/83
Section Head

PORC Meeting Number 82-216 Date 11-5-82

_____ Date 2-17-83
Superintendent of Plant

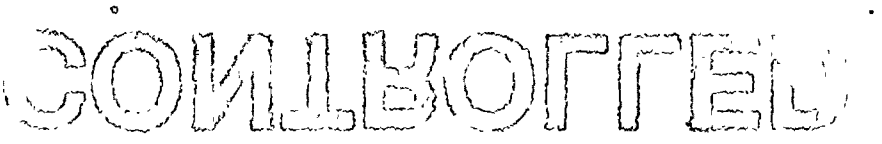
СОИЛЬВОГГЕЬ

TABLE OF CONTENTS

SECTION		PAGE
1.0	PURPOSE	3
2.0	SCOPE	3
3.0	REFERENCES	3
4.0	RESPONSIBILITIES	3
5.0	DEFINITIONS	3
6.0	INSTRUCTIONS	4

ATTACHMENTS

ATTACHMENTS		PAGE
A	Action Step - Emergency Director/ Radiation Protection Coordinator	5
B	Action Step - Emergency Radiation Monitor(s)	6
C	Action Step - Security Coordinator	8
D	Action Step - Administrative Coordinator/ Administrative Support Mgr	

1.0 PURPOSE

The purpose of this procedure is to describe the control methods, locations and limits for Personnel and Vehicle Contamination Surveys.

2.0 SCOPE

To provide methods of surveying and decontaminating personnel and vehicles during Emergency Conditions.

3.0 REFERENCES

3.1 HP-TP-624, "Personnel Decontamination"

3.2 HP-TP-270, "Operation of RM-14"

4.0 RESPONSIBILITIES

4.1 The EMERGENCY DIRECTOR/RADIATION PROTECTION COORDINATOR/RADIATION SUPPORT MANAGER is responsible for determining requirements for personnel and vehicle decontamination and for ensuring that sufficient personnel are made available to control and monitor personnel and vehicles utilized during an Emergency Condition.

4.2 The SECURITY COORDINATOR is responsible for ensuring that vehicles and personnel leaving the site exit via contamination control points and offsite team vehicles and/or ambulance vehicles, requiring decontamination, have site access clearance.

4.3 The ADMINISTRATIVE COORDINATOR/ADMINISTRATIVE SUPPORT MANAGER is responsible for ensuring provision for transportation of offsite team vehicles, requiring decontaminaiton, onsite.

5.0 DEFINITIONS

5.1 Large Area Smear (LAS) - The use of a maslin type cloth in swiping a large surface (sq. ft.). This technique deviates from normal swiping techniques and provides a quick, conservative estimate of loose surface contamination.

5.2 Corrected Counts Per Minute (CCPM) - Net count rate in an RM-14/HP-210 or equivalent after subtraction of the background count rate.

6.0 INSTRUCTIONS

6.1 Upon determination that Personnel and Vehicle Contamination Surveys are needed, the EMERGENCY DIRECTOR/RADIATION PROTECTION COORDINATOR/RADIATION SUPPORT MANAGER will follow the instructions in Attachment A, Action Step - EMERGENCY DIRECTOR/RADIATION PROTECTION COORDINATOR/RADIAITON SUPPORT MANAGER.

6.2 At the direction of the EMERGENCY DIRECTOR/RADIATION PROTECTION COORDINATOR/RADIATION SUPPORT MANAGER, the EMERGENCY RADIATION MONITOR will follow the steps in Attachment B, Action Step - EMERGENCY RADIATION MONITOR.

6.3 At the direction of the EMERGENCY DIRECTOR/RADIATION PROTECTION COORDINATOR/RADIATION SUPPORT MANAGER, the SECURITY COORDINATOR will follow the steps in Attachment C, Action Step - SECURITY COORDINATOR.

6.4 At the direction of the RADIATION PROTECTION COORDINATOR/RADIATION SUPPORT MANAGER, the ADMINISTRATIVE COORDINATOR/ADMINISTRATIVE SUPPORT MANAGER will follow the steps in Attachment D, Action Step - ADMINISTRATIVE COORDINATOR/ADMINISTRATIVE SUPPORT MANAGER.

ACTION STEP
EMERGENCY DIRECTOR
RADIATION PROTECTION COORDINATOR
RADIATION SUPPORT MANAGER

A.1.0 The EMERGENCY DIRECTOR/RADIATION PROTECTION COORDINATOR/RADIATION SUPPORT MANAGER will:

A.1.1 Insure EMERGENCY RADIATION MONITOR(s) are dispatched to contamination control point, Post 15 or 1, EOF parking area or the hospital as appropriate.

A.1.2 If Post 15 or 1 are not available because of high radiation or contamination levels, dispatch MONITOR(s) to an area where Background levels are < 300 cpm.

A.1.3 Determine if vehicles and/or personnel are contaminated and will require surveys or are free to egress SSES.

ACTION STEP
EMERGENCY RADIATION MONITOR

Check

B.1.0 When personnel contamination surveys are required during EMERGENCY CONDITIONS, the RADIATION MONITOR will:

____ B.1.1 Ensure egressing persons pass through portal monitors at contamination control point if functioning or use RM-14/HP-210 or equivalent for whole body frisking.

____ B.1.2 Monitor offsite team members and/or emergency medical personnel using an RM-14/HP-210 or equivalent for whole body frisking.

____ B.1.3 Personnel are considered contaminated if levels of > 500 cpm above background are detected.

B.1.4 If personnel are contaminated, insure the following steps are taken:

____ B.1.4.1 Don protective clothing to contain contamination, if necessary.

____ B.1.4.2 Direct contaminated persons to an appropriate facility to decontaminate as per HP-IP-624, Personnel Decontamination

NOTE: IF NASAL CONTAMINATION IS DETECTED, CONSIDER Internal Dosimetry Program

B.1.5 Complete Form HP-TP-624-1, Personnel Contamination Report, and transmit to TSC Radioman or EOF communicator.

B.2.0 When vehicle contamination surveys are required during EMERGENCY CONDITIONS, the RADIATION MONITOR will:

B.2.1 If it is determined that vehicles may be contaminated:

____ B.1.2.1 Take a LAS and count it on an RM-14/HP-210 or equivalent.

B.1.2.2 Vehicles are considered contaminated when levels of > 500 cpm above background are detected.

B.2.2 If offsite team vehicles and/or ambulance vehicles are contaminated, insure the following steps are performed when appropriate.

B.2.2.1 Perform whatever decontamination possible at location.

B.2.2.2 If further decontamination is required per B2.1.2, direct the vehicles to be transported to the inspection pit onsite.

B.2.3 When contaminated vehicles are onsite, insure the following steps are performed when appropriate.

B.2.3.1 Insure inspection pit drains are plugged properly.

B.2.3.2 Position contaminated vehicles over the inspection pit and hose vehicles down.

NOTE: LIQUID WASTE FROM CONTAMINATED VEHICLES WILL REMAIN IN THE INSPECTION PIT UNTIL IT IS SAMPLED, BATCHED AND RELEASED.

B.2.3.3 Re-survey vehicles per B.2.1

B.2.3.4 Quarantine vehicles which cannot be decontaminated by hosing.

ACTION STEP
SECURITY COORDINATOR

CHECK

C.1.0 The SECURITY COORDINATOR will:

____ C.1.1 Direct personnel and vehicles to appropriate contamination control point.

____ C.1.2 Insure site access clearance for offsite team vehicles and/or ambulance vehicles requiring decontamination.

ACTION STEP

ADMINISTRATIVE COORDINATOR/ADMINISTRATIVE SUPPORT MANAGER

CHECK

D.1.0 The ADMINISTRATIVE COORDINATOR/ADMINISTRATIVE SUPPORT MANAGER will:

____ D.1.1 Make provisions for the transportation of offsite vehicles from EOF parking lot on to the site for decontamination, if necessary.

PROCEDURE COVER SHEET

PENNSYLVANIA POWER & LIGHT CO. SUSQUEHANNA STEAM ELECTRIC STATION	
RECONSTRUCTION AND ACCIDENT CLOSE OUT	EP-IP-038 Revision 0 Page 1 of 9
Effective Date 6-16-82 Expiration Date 6-16-84 Revised Expiration Date _____	

CONTROLLED

Prepared by _____ Date 4/8/82

Reviewed by R Craig Yoder Date 4-8-82

PORC Review Required Yes (✓) No ( )

Approved by _____ Date 5/10/82
Section Head

PORC Meeting Number 82-051 Date 5/14/82

_____ Date 6-14-82
Superintendent of Plant

FORM AD-QA-101-1, Rev. 1 Page 1 of 1

TABLE OF CONTENTS

SECTION		PAGE
1.0	PURPOSE	3
2.0	SCOPE	3
3.0	REFERENCES	3
4.0	RESPONSIBILITIES	3
5.0	DEFINITIONS	4
6.0	INSTRUCTIONS	4

ATTACHMENTS

ATTACHMENT		PAGE
A	In-Plant Radiological Considerations	7
B	Off-Site Radiological Considerations	8

1.0 PURPOSE

The purpose of this procedure is to:

1.1 Reconstruct the event sequences associated with the cause and control of the emergency.

1.2 Reconstruct the radiological conditions which existed during the emergency.

1.3 Assess the radiological consequences of the emergency.

2.0 SCOPE

Provide a list of items to be considered when reconstructing and assessing the emergency.

3.0 REFERENCES

3.1 NUREG - 0654, Planning Standards and Evaluation Criteria

3.2 NUREG - 0696, Functional Criteria for Emergency Response Facilities

3.3 NUREG - 0731, Guidelines for Utility Management Structure and Technical Resources, September 1980

3.4 SSES Emergency Plan

4.0 RESPONSIBILITIES

4.1 It is the responsibility of the SUPERINTENDENT OF PLANT to reconstruct the sequence of events associated with the emergency, assess the adequacy of responses and document the lessons learned of any EMERGENCY which did not result in activation of the EOF.

4.2 It is the responsibility of the MANAGER-NUCLEAR SAFETY ASSESSMENT GROUP to reconstruct the sequence of events associated with the emergency, assess the adequacy of the responses and document the lessons learned of any EMERGENCY which did not result in activation of the EOF.

4.3 It is the responsibility of the RADIATION PROTECTION COORDINATOR to reconstruct the on-site radiological conditions associated with the emergency and assess doses to in-plant personnel. In the event the EOF was not activated, the RADIATION PROTECTION COORDINATOR is responsible to reconstruct the off-site radiological conditions and assess doses to the public and other off-site personnel.

4.4 It is the responsibility of the RADIATION SUPPORT MANAGER to reconstruct the off-site radiation conditions and assess doses to the public and other off-site personel in the event the EOF was activated.

4.5 It is the responsibility of the RADIOLOGICAL AND ENVIRONMENTAL SERVICES SUPERVISOR to review and approve all radiological reports resulting from activities outlined in this procedure.

4.6 It is the responsibility of the VICE PRESIDENT-NUCLEAR OPERATIONS to review and approve all reports resulting from activities outlined in this procedure and implement a follow-up corrective action program, as appropriate.

5.0 DEFINITIONS

5.1 EREMP - Emergency Radiological Environmental Monitoring Program

5.2 REMP - Radiological Environmental Monitoring Program

5.3 TLD - Thermoluminescence Dosimeter

6.0 INSTRUCTIONS

6.1 If the EOF was not activated, the SUPERINTENDENT OF PLANT will issue a report including:

6.1.1 Reconstruction of the sequence of events associated with the emergency (timeline and detailed supporting documentation packages).

6.1.2 Determination of the cause of the emergency.

6.1.3 Assessment of the extent of damage sustained by the plant.

6.1.4 Assessment of the adequacy of response.

6.1.5 Identification of lessons learned.

6.2 If the EOF was activated, the MANAGER - NUCLEAR SAFETY ASSESSMENT GROUP will issue a report including:

6.2.1 Reconstruction of the sequences of events associated with the emergency (timeline and detailed supporting documentation packages).

6.2.2 Determination of the cause of the emergency.

6.2.3 Assessment of the extent of damage sustained by the plant.

6.2.4 Assessment of the adequacy of response.

6.2.5 Identification of lessons learned.

6.3 RADIATION PROTECTION COORDINATOR Duties

6.3.1 The RADIATION PROTECTION COORDINATOR will issue a report, utilizing the guidance in Attachment A, which addresses:

6.3.1.1 Characterization of in-plant radiological conditions.

6.3.1.2 Personnel exposures.

6.3.1.3 Characterization of radiological conditions in restricted area.

6.3.2 If the EOF was not activated, the RADIATION PROTECTION COORDINATOR will:

6.3.2.1 Issue a report, utilizing the guidance in Attachment B, which addresses:

a. Correlation of radiological release data.

b. Dose assessment to emergency response personnel and the public.

c. Evaluation of environmental sampling program.

d. Coordination of results with off-site agencies.

6.3.2.2 Provide an initial assessment of the radiological impact to the public immediately following the emergency.

6.3.2.3 Establish a follow-up radiological assessment program.

6.4 RADIATION SUPPORT MANAGER Duties

6.4.1 If the EOF was activated, the RADIATION SUPPORT MANAGER will:

6.4.1.1 Issue a report, utilizing the guidance in Attachment B, which addresses:

a. Correlation of radiological release data.

b. Dose assessment to emergency response personnel and the public.

c. Evaluation of environmental sampling program.

d. Coordination of results with off-site agencies.

6.4.1.2 Provide an initial assessment of the radiological impact to the public immediately following the emergency.

6.4.1.3 Establish a follow-up radiological assessment program.

6.5 The RADIOLOGICAL AND ENVIRONMENTAL SERVICES SUPERVISOR will review and approve all radiological reports associated with the emergency.

6.6 The VICE-PRESIDENT-NUCLEAR OPERATIONS will review and approve all reports associated with the emergency. He will also implement a follow-up corrective action program, as appropriate.

IN-PLANT RADIOLOGICAL CONSIDERATIONS

A.1 Characterize radiation conditions that existed in the plant.

- o dose rates
- o airborne concentrations
- o contamination levels
- o identify radionuclide composition
- o areas affected
- o radioactive liquid inventory
- i evaluate chemistry and radiological samples taken during emergency

A.2 Determine Personnel Exposures

- o TLD Badges
- o Self reading dosimeters
- o reconstruct habitability conditions for occupied areas
- o internal dosimetry program
- o evaluate doses due to contamination
- o evaluate extremity doses

A.3 Characterize radiation conditions within the Restricted Area.

- o vehicle surveys
- o on-site buildings
- o spray pond
- o cooling tower samples/station blowdown

OFF-SITE RADIOLOGICAL CONSIDERATIONS

B.1 Correlate data to characterize the gaseous releases:

- o effluent data
- o meteorological data
- o off-site emergency monitoring team data
- o Pressurized Ionization Chambers data
- o air monitoring stations data
- o REMP-TLDs data

B.2 Correlate data to characterize the liquid releases:

- o effluent data
- o river samples, sediment and water

B.3 Dose Assessment to Emergency Response Personnel

- o TLD Badges
- o Self reading dosimeters
- o Air samples
- o reconstruct habitability conditions for occupied areas
- o internal dosimetry program

B.4 Evaluate Environmental Sampling Program

- o milk samples
- o foodstuff samples
- o drinking watersamples
- o wildlife samples
- o domestic animal samples
- o contamination estimates