EMERGENCY PLAN IMPLEMENTING PROCEDURES INDEX
C1-15-86

PROCEDURE NUMBER	PROCEDURE TITLE	PROCEDURE REVISION	PROCEDURE EFFECTIVE DATE	CHANGE NOTICE NUMBER	CHANGE NOTICE DATE	NUCLEAR SAFETY REVIEW REQUIRED	PERIODIC REVIEW DATE	
EPIP-01	NOW COVERED BY ARPP PROCEDURE NUMBER ZA-EP-02-00		850116					Z
EPIP-02	EMERGENCY CLASSIFICATION	04	850827	C1		Y	86C327	Z
EPIP-03	NOTIFICATION OF UNUSUAL EVENT IMPLEMENTING ACTIONS	10	860115			Y	87C115	Z
EPIP-04	ALERT IMPLEMENTING ACTIONS	09	860115			Y	87C115	Z
EPIP-05	SITE AREA EMERGENCY IMPLEMENTING ACTIONS	09	860115			Y	87C115	Z
EPIP-06	GENERAL EMERGENCY IMPLEMENTING ACTIONS	09	860115			Y	87C115	Z
EPIP-11	TECHNICAL SUPPORT CENTER/SATELLITE TSC ACTIVATION	05	860115			Y	87C115	Z
EPIP-12	OPERATIONS SUPPORT CENTER ACTIVATION	05	860115			Y	87C115	Z
EPIP-13	EMERGENCY OPERATIONS FACILITY ACTIVATION	05	860115			Y	87C115	Z
EPIP-14A	RELEASE RATE DETERMINATION	06	850410	C1,02		Y	86C410	Z
EPIP-14B	INITIAL DOSE ASSESSMENT	03	850409			Y	86C409	Z
EPIP-14C	CONTINUING DOSE ASSESSMENT	01	850409			Y	86C409	Z
EPIP-15	PROTECTIVE ACTION GUIDELINES	03	850827	C1		Y	86C627	Z
EPIP-16	INPLANT SURVEYS AND SAMPLING	03	850510			Y	86C510	Z
EPIP-17	ONSITE/OFFSITE SURVEYS AND SAMPLING	02	840801			Y	85C401	Z
EPIP-18	EMERGENCY EXPOSURE GUIDELINES	03	850510			Y	86C510	Z
EPIP-19	ONSITE EVACUATION	04	860115			Y	87C115	Z
EPIP-20	PERSONNEL ASSEMBLY AND ACCOUNTABILITY	04	860115			Y	87C115	Z
EPIP-21	SEARCH AND RESCUE	04	860115			Y	87C115	Z
EPIP-22	PERSONNEL INJURY	03	850308			Y	86C308	Z
EPIP-23	FIRE FIGHTING	03	850517			Y	86C517	Z
EPIP-24	SECURITY	03	850912	C1		Y	86C912	Z
EPIP-25	REENTRY FOR EMERGENCY OPERATIONS	04	860115			Y	87C115	Z
EPIP-26	POTASSIUM IODINE (KI) ADMINISTRATION	03	850617			Y	86C517	Z
EPIP-27	POST ACCIDENT SAMPLING AND ANALYSIS	04	850810			Y	86C810	Z
EPIP-28	PERSONNEL MONITORING AND DECONTAMINATION	02	840716			Y	85C716	Z
EPIP-29	AREA/EQUIPMENT MONITORING AND DECONTAMINATION	02	840716			Y	85C716	Z
EPIP-30	RADIOLOGICAL EMERGENCY RESPONSE VEHICLE OPERATIONS	00	840716			Y	85C716	Z
EPIP-31	RECOVERY	04	860115			Y	87C115	Z
EPIP-33	OFFSITE ASSISTANCE	03	850912	C1		Y	86C912	Z

EMERGENCY PLAN IMPLEMENTING
PROCEDURES INDEX
01-15-86

PROCEDURE NUMBER	PROCEDURE TITLE	PROCEDURE REVISION	PROCEDURE EFFECTIVE DATE	CHANGE NOTICE NUMBER	CHANGE NOTICE DATE	NUCLEAR SAFETY REVIEW REQUIRED	PERIODIC REVIEW DATE	
EPIP-35	NOW COVERED BY ANPP PROCEDURE NUMBER 7N4C9.31.00 AND 7N4C9.07.00		850325					Z
EPIP-36	SUPERSEDED BY ANPP PROCEDURE NUMBER 8A713.04.00 ("EMERGENCY PLAN TRAINING")		850724					Z
EPIP-37A	NOW COVERED BY ANPP PROCEDURE NUMBER 7N4C9.05.00		850322					Z
EPIP-37B	NOW COVERED BY ANPP PROCEDURE NUMBER 7N4C9.09.00		850322					Z
EPIP-38	EMERGENCY EQUIPMENT AND SUPPLIES INVENTORY	07	850930	01		Y	860930	Z
EPIP-56	ULTIMATE HEAT SINK EMERGENCY WATER SUPPLY	02	851105			Y	861105	Z
EPIP-57	CORPORATE EMERGENCY RESPONSE	01	850912			Y	860912	Z

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-17	
ONSITE/OFFSITE SURVEYS AND SAMPLING	REVISION 2	Page 1 of 23

2

ASSIGNED COPY

PVNGS # 8-9B

DEPT. HEAD O.S. Zimmerman DATE 6/4/84

PRB/PRG REVIEW O.S. Zimmerman DATE 7/17/84

APPROVED BY O.S. Zimmerman for JTB DATE 7/17/84 1/9/86

EFFECTIVE DATE 8-1-84

DN-1631A/0190A

PV216-000A (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-28	
PERSONNEL MONITORING AND DECONTAMINATION	REVISION 2	Page 1 of 17

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PVNGS #8-9B

DEPT. HEAD O.A. Zellinger DATE 5/22/84

PRB/PRG REVIEW [signature] DATE 7/16/84

APPROVED BY O.A. Zellinger JRB for DATE 7/16/84 1/9/86

EFFECTIVE DATE ~~07-20-84~~ IM 02-16-84
07-16-84

DN-1635A/0190A

PV216-000A (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-29	
AREA/EQUIPMENT MONITORING AND DECONTAMINATION	REVISION 2	Page 1 of 14

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PVNGS #8-9B

DEPT. HEAD [signature] DATE 5/22/84

PRB/PRG REVIEW [signature] DATE 7/16/84

APPROVED BY [signature] DATE 5/16/84 1/9/86

EFFECTIVE DATE ~~07-20-84~~ JM 07-16-84
07-16-84

DN/1636A/0190A

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-30	
RADIOLOGICAL EMERGENCY RESPONSE VEHICLE OPERATIONS	REVISION 0	Page 1 of 7

DEPT. HEAD O. J. Zimmerman DATE 4/3/84

PRB/PRG REVIEW M. L. Clyde DATE 7-6-84

APPROVED BY O. J. Zimmerman DATE 7-6-84 1/9/86

EFFECTIVE DATE 07-16-84

DN-8211A/0580A

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 of 1

INTENT CHANGE: NO [
YES [

1. PROCEDURE TITLE Emergency Classification
2. PROCEDURE NUMBER EPIP-02 REV. 4 PCN 1
2a. Manager concurrence to exceed 5 PCNs N/A DATE
3. REASON FOR PCN: Clarify classification Criteria
4. EXPIRATION: Next Revision
5. AFFECTED STEPS: Appendix B - Alert (page 15)

CHANGE REQUIRED: Delete page 15; Insert 15a

6. PREPARED BY: Gerald A. Amsele 12/9/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DAT

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

SS/Assist. SS DAT

8. DEPT. MANAGER: Dennis ? Ozmer 12/9/85
SIGNATURE DATE

9. PRB/PRC/TRRG: [illegible] 1/2/86
SIGNATURE DAT

10. APPROVED BY: J R Bynum 1/6/86
DEPARTMENT MANAGER'S SIGNATURE DAT

11. DATE EFFECTIVE [illegible]

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-02	
EMERGENCY CLASSIFICATION	REVISION 4	Page 1 of 27

DEPT. HEAD Dennis D. Young DATE 8/12/85

PRB/PRG/TRRG REVIEW [signature] DATE 8/16/85

APPROVED BY [signature] DATE 8/20/85

EFFECTIVE DATE 08-21-85

DN-1519A/0407A

PV216-00DA (8/82).

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-02	
EMERGENCY CLASSIFICATION	REVISION 4	Page 2 of 27

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	04.11.85	4, 7, 9, 15,	To incorporate PCN #01 of
		17, 19	Rev. 2 and to correct
			references and minor
			editorial changes
4	06.21.85	10, 17, 25	TO INCORPORATE PCN #01
			OF REV. 3; REVISE NOTE
			SO WORDING SAME AS IN
			OTHER PROTERULE; SPELLING
			ERROR CORRECTION

TABLE OF CONTENTS

APPENDICES

1.0 OBJECTIVE

To provide a means of classifying off-normal events into one of the four emergency classifications described in the PVNGS Emergency Plan.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-03, "Notification of Unusual Event Implementing Actions"

2.1.2 EPIP-04, "Alert Implementing Actions"

2.1.3 EPIP-05, "Site Area Emergency Implementing Actions"

2.1.4 EPIP-06, "General Emergency Implementing Actions"

2.1.5 EPIP-15, "Protective Action Guidelines".

2.1.6 EPIP-20, "Personnel Assembly and Accountability".

2.1.7 PVNGS Technical Specifications

2.1.8 41EP-1ZZ01, "Emergency Procedure"

2.1.9 71AC-9ZZ01, "Event Related Reporting"

2.1.10 41RO-1ZZ10, "Functional Recovery Procedure"

2.1.11 PVNGS Security Plan

2.1.12 41RO-1ZZ01, "Reactor Trip Recovery Procedure"

2.2 Developmental References

2.2.1 NUREG-0654 Rev. 1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.2.2 PVNGS Emergency Plan, Rev. 5

2.2.3 PVNGS Final Safety Analysis Report (FSAR), Amendment 14, February 1985

2.2.4 CEOG EOP Technical Guidelines, CEN-152, Rev. 02, April 1984

CONTROLLED DOCUMENT

2.2.5 EPA-520/1-75-00, "Manual of Protective Actions Guides and Protective Actions for Nuclear Incidents," Revised June 1980.

2.2.6 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," 1983.

2.2.7 CEOG Task 467, May 1983, "Guideline for Core Damage Assessment".

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Surveillance and assessment of plant and containment conditions are necessary to ensure appropriate classification of an event and appropriate Protective Action Recommendations (PAR) made to offsite officials. These PARs are made to offsite officials even when no release is in progress.

3.2 Definitions and Abbreviations

3.2.1 Notification of Unusual Event - This classification applies to unusual events which are in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occur.

3.2.2 Alert - This classification consists of events which are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the Environmental Protection Agency Protective Action Guideline exposure levels.

3.2.3 Site Area Emergency - Consists of events which are in progress or have occurred which involve actual or likely major failures of plant functions needed for the protection of the public. Any releases are not expected to exceed Environmental Protection Agency Guideline exposure levels beyond the site boundary.

3.2.4 General Emergency - Consists of events which are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

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3.2.5 ARM - Area Radiation Monitor

3.2.6 PRM - Process Radiation Monitor

3.2.7 PAG - Protective Action Guidelines: Guidelines used in establishing recommendations given to and acted upon by offsite authorities to ensure the safety of the public.

3.2.8 MSLB - Main Steam Line Break

3.2.9 MSSS - Main Steam Support Structure

3.2.10 SBCS - Steam Bypass Control System

3.2.11 ADV - Atmospheric Dump Valves

3.2.12 ESFAS - Engineered Safety Features Actuation System

3.2.13 PAR - Protective Action Recommendation

3.2.14 RPS - Reactor Protection System

3.2.15 RO - Recovery Operating Procedures

3.2.16 CHIC - Corporate Headquarters Information Center

3.2.17 CEC - Corporate Emergency Center

3.2.18 JENC - Joint Emergency News Center

3.2.19 SS - Shift Supervisor

3.2.20 EC - Emergency Coordinator

3.2.21 RMS - Radiation Monitoring System

3.2.22 WB - Whole Body

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4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

NOTE

The rationale and criteria used to derive Appendices A and B is given in Appendix C. Appendix C describes the criteria used in the development of the emergency classifications. It is intended for information only, not for event classification.

EPIP-02 is not implemented for the notification of significant events unless a situation degrades to the point of impacting on a fission product barrier and compromising a safety function. Notification of significant events is made per 71AC-9ZZ01, "Event Related Reporting".

4.1.1 If a conflict or uncertainty exists, the more conservative, higher numbered, Implementing Action EPIP should be initiated when classifying the event.

4.1.2 For Emergency Classifications of ALERT or higher, the Shift Supervisor of the designated unaffected unit shall relieve the Shift Supervisor of the affected unit as the Emergency Coordinator. For Notification of Unusual Events it will be the discretion of the Shift Supervisor of the affected unit, if he is to be relieved as Emergency Coordinator by the Shift Supervisor of the designated unaffected unit.

4.1.3 The normal assignments of designated unaffected unit Shift Supervisors are listed. If conditions exist which make the use of the listed Shift Supervisor undesirable, another qualified individual may relieve as the Emergency Coordinator at the discretion of the affected unit Shift Supervisor.

4.1.4 If an indication of barrier challenge or failure exists which is inconsistent with the recovery procedure in use, initiate the Emergency Classification indicated and rediagnose plant conditions to identify any additional procedure which may be necessary to address existing conditions.

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4.1.5 The rationale used to develop the classification of events based on indications of barrier challenge or failure is provided in Appendix C. This information describes the relationship between safety function and barrier integrity.

4.1.6 Responsibilities of the affected unit shift supervisor are:

4.1.6.1 Initial classification of the event per this procedure.

NOTE

Designated Unaffected Unit Shift Supervisor to assume the role to the Emergency Coordinator in the Onshift Emergency Organization are:

Affected Unit SS	Unaffected Unit SS
Unit 1	Unit 2
Unit 2	Unit 1
Unit 3	Unit 2
Entire Site	Unit 1

4.1.6.2 Notification of the Shift Supervisor of the designated unaffected unit or other individual selected as Emergency Coordinator.

4.1.6.3 Organization of the onshift staff to place the plant in a safe condition.

4.1.6.4 Assumption of the Emergency Coordinator's position until relieved.

4.1.7 Responsibilities of the Emergency Coordinator are:

4.1.7.1 Overall responsibility for directing the onshift emergency response organization.

4.1.7.2 Implement EPIP's based on initial classification.

4.1.7.3 Verification/reclassification of the event after initial licensee actions are completed.

4.1.7.4 Monitoring plant conditions and reclassifying the event as necessary until the event is terminated.

4.1.7.5 Downgrade the event based on plant status with all safety functions satisfied and boundary status verified.

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4.1.7.6 Terminate the event taking into account that the event has been downgraded and the anticipated plant response is such that there should be no challenge to any fission product barriers or radiation releases in excess of Tech Specs; and present plant conditions are such that there is no possibility of an adverse impact on the health or safety of the general public or plant personnel.

4.2 Prerequisites

4.2.1 A situation has occurred which requires the implementation of the PVNGS Emergency Plan to protect the health and safety of the public.

4.3 Instructions

4.3.1 When plant conditions are such that Emergency Plan implementation may be required, the Shift Supervisor/Emergency Coordinator shall perform the following:

4.3.2 Classify the event using the appropriate appendix:

Appendix A - If an event oriented Recovery Procedure or the functional Recovery Procedure is in use.

Appendix B - If a non-Rx trip event has occurred.

4.3.3 If 41RO-1ZZ01, "Reactor Trip Recovery Procedure", is in use and effectively directing the maintenance of Critical Safety Functions and plant recovery, the CRS/EC may elect to NOT classify an uncomplicated Reactor Trip as NUE. Plant parameters must be trending as expected in order to NOT classify a Reactor Trip as a NUE. Appropriate notifications should be made per 71AC-9ZZ01, "Event Related Reporting".

4.3.4 Record the date/time/events of initial classification. Upon verification/reclassification of the event, record the date and time and supporting information.

4.3.5 Initiate and complete the implementing actions given in the appropriate classified-event implementing procedure (i.e., EPIP-03, 04, 05 or 06).

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Offsite Dose and Barrier Challenge/Failure Event Classification

1.0 Determine the event classification as follows:

1.1 Evaluate any barrier challenges/failure per Appendix A, Table 1.

1.2 Evaluate any current offsite radioactive release per Appendix A, Table 2.

NOTE

Protective Action recommendations are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress.

4

2.0 Select the most restrictive, higher classification, from the Table 1 and Table 2 evaluations as the event classification.

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Appendix A

Table 1 - Barrier Challenge/Failure Classification Criteria

1.0 Make Checks by any of the following conditions that currently exist:

RCS

____ RVLMS indicates voiding in upper plenum

____ RCS pressure > 2750 psia

____ Uncontrolled loss of RCS inventory > 50 gpm

CLAD

____ ATWS

OR

Excessive RCS Activity (> 300 uc/gm dose equivalent I-131)

____ CET > 700 F

CONTAINMENT

____ Physical breach of containment

OR

CIAS required but not completed (i.e. both automatic valves in a penetration fail to close)

____ H_2 concentration > 3.5% by volume

____ Containment pressure > 50 psig

Vital Auxiliaries/Radiation Release

____ Loss of offsite and onsite AC power

____ Loss of offsite and onsite AC power for longer than 60 minutes

____ Loss of all Class IE DC power.

____ Loss of all Class IE DC power for longer than 15 minutes.

____ Failure of ESF Safety Systems (both trains) to actuate when required

____ > 10gpm primary/secondary leakage concurrent with LOP

OR

> 10 gpm primary/secondary leakage concurrent with loss of secondary coolant outside containment

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Appendix A

Table 1 - Barrier Challenge/Failure Classification Criteria (Cont'd.)

2.0 Determine the emergency classification level for barrier challenge/failure per the following guidelines:

Number of Checks made in 1.0	Barrier Status	Classification
0	No barriers lost or challenged	Unusual Event (EPIP-03)
1	One barrier lost or challenged	Alert (EPIP-04)
2	Two barriers lost or challenged	Site Area Emergency (EPIP-05)
3 or more	Three barriers lost or challenged	General Emergency (EPIP-06)

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Appendix A

Table 2 - Offsite Dose Projection Classification Criteria

Based upon information provided by the Radiation Protection Group and/or RMS, determine the emergency classification level according to the following:

___ Notification of Unusual Event (EPIP-03)

Plant Vent Monitor	RU-143 Chn. 1	> 3.2 E-3 uci/cc
Fuel Bldg. Exh. Monitor	RU-145 Chn. 1	> 1.04 E-2 uci/cc
Condenser Exh. Monitor	RU-141	> 1.2 E-1 uci/cc

___ Alert (EPIP-04)

Plant Vent Monitor	RU-144 Chn. 1	> 3.45 E-3 uci/cc
Fuel Bldg Exh. Monitor	RU-146 Chn. 1	> 1.12 E-1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 1	> 1.3 E-1 uci/cc

___ Site Area Emergency (EPIP-05)

Plant Vent Monitor	RU-144 Chn. 1	30 min. @ > 3.45 E-1 uci/cc
	RU-144 Chn. 2	2 min. @ > 3.45 uci/cc
Fuel Bldg. Exh. Monitor	RU-146 Chn. 1	30 min. @ > 1.12 uci/cc
	RU-146 Chn. 2	2 min. @ > 1.12 E + 1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 1	30 min. @ > 1.3 E + 1 uci/cc
	RU-142 Chn. 2	2 min @ > 1.3 E + 2 uci/cc

___ General Emergency (EPIP-06)

Plant Vent Monitor	RU-144 Chn. 2	> 6.9 uci/cc
Fuel Bldg. Exh. Monitor	RU-146 Chn. 2	> 2.24 E + 1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 2	> 2.6 E + 2 uci/cc

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Appendix B

Non Rx Trip Event Classification Criteria

1.0 Classify non Rx trip events as follows:

1.1 Based on existing plant conditions select the most appropriate event category from below:

Event Category	Tab
Increase in Radiation Levels or Radioactive Effluent Release Rate	1
Technical Specification LCO Nonconformance	2
Degraded Facility Control, Indication, or Alarm	3
Fire and/or Security Compromise	4
Natural Disaster/Physical Hazard to Facility	5

1.2 Refer to the indicated tab for the event category chosen and select the classification appropriate for existing conditions.

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TAB 1

Increase in Radiation Levels or Radioactive Effluent Release Rate

Notification of Unusual Event (EPIP-03)

- RCS sample activity requires shutdown per Tech Spec 3.4.7
- Rad Protection and/or RMS confirms radioactive effluent releases exceed:

Plant Vent Monitor	RU-143 Chn. 1	> 3.2 E-3 uci/cc
Fuel Bldg. Exh. Monitor	RU-145 Chn. 1	> 1.04 E-2 uci/cc
Condenser Exh. Monitor	RU-141	> 1.2 E-1 uci/cc

- Transportation of internally or externally contaminated injured person to offsite hospital

Alert (EPIP-04)

- RCS sample activity > 300 uC/gm (DE I-131)
- Direct radiation readings within facility increase by 1000
- Rad Protection and/or RMS confirms radioactive effluent releases exceed:

Plant Vent Monitor	RU-144 Chn. 1	> 3.45 E-3 uci/cc
Fuel Bldg. Exh. Monitor	RU-146 Chn. 1	> 1.12 E-1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 1	> 1.3 E-1 uci/cc

- RCS leak rate > 50 gpm

pen #1

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TAB 1

Increase in Radiation Levels or Radioactive Effluent Release Rate

Notification of Unusual Event (EPIP-03)

- RCS sample activity requires shutdown per Tech Spec 3.4.7
- Rad Protection and/or RMS confirms radioactive effluent releases exceed:

Plant Vent Monitor	RU-143 Chn. 1	> 3.2 E-3 uci/cc
Fuel Bldg. Exh. Monitor	RU-145 Chn. 1	> 1.04 E-2 uci/cc
Condenser Exh. Monitor	RU-141	> 1.2 E-1 uci/cc

- Transportation of internally or externally contaminated injured person to offsite hospital

Alert (EPIP-04)

- RCS sample activity > 300 uC/gm (DE I-131)

NOTE

Radiation readings "increase by 1000" refers to unexpected or casualty situations. This is not meant to include normal plant evolutions such as resin transfer or source transport.

- Direct radiation readings within facility increase by 1000
- Rad Protection and/or RMS confirms radioactive effluent releases exceed:

Plant Vent Monitor	RU-144 Chn. 1	> 3.45 E-3 uci/cc
Fuel Bldg. Exh. Monitor	RU-146 Chn. 1	> 1.12 E-1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 1	> 1.3 E-1 uci/cc

- RCS leak rate > 50 gpm

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Site Area Emergency (EPIP-05)

- Major damage to spent fuel

- Rad Protection and/or RMS confirms effluent radioactive releases exceed:

Plant Vent Monitor	RU-144 Chn. 1	30 min. @ > 3.45 E-1 uci/cc
	RU-144 Chn. 2	2 min. @ > 3.45 uci/cc
Fuel Bldg. Exh. Monitor	RU-146 Chn. 1	30 min. @ > 1.12 uci/cc
	RU-146 Chn. 2	2 min. @ > 1.12 E + 1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 1	30 min. @ > 1.3 E + 1 uci/cc
	RU-142 Chn. 2	2 min @ > 1.3 E + 2 uci/cc

- Radiation Protection measures > 50 MR/Hr at site boundary with portable instruments

General Emergency (EPIP-06)

- Rad Protection and/or RMS confirms effluent radioactive releases exceed:

Plant Vent Monitor	RU-144 Chn. 2	> 6.9 uci/cc
Fuel Bldg. Exh. Monitor	RU-146 Chn. 2	> 2.24 E + 1 uci/cc
Condenser Exh. Monitor	RU-142 Chn. 2	> 2.6 E + 2 uci/cc

- Radiation Protection measures > 1.0 R/Hr at site boundary with portable instruments

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TAB 2

Technical Specification LCO Non-Conformance

Notification of Unusual Event (EPIP-03)

- Rad Protection and/or RMS confirms section 3/4.11 Tech Spec Radiological Effluent limits exceeded
- RCS activity sample requires shutdown per Tech Spec 3.4.7
- Noncompliance with a technical specification, such that the requirement of the LCO and associated action requirements are not met within the specified time intervals and require reactor shutdown. 4

Alert (EPIP-04)

- RCS leakrate >50 gpm
- ATWS

Site Area Emergency (EPIP-05)

None

General Emergency (EPIP-06)

None

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TAB 3

Degraded Facility Control, Indication and Alarm

Notification of Unusual Event (EPIP-03)

- Degraded control room indication or alarms on process parameters such that plant shutdown is required

Alert (EPIP-04)

- Loss of most or all annunciators
- Evacuation of control room required or anticipated
- Complete loss of any function needed for plant cold shutdown, when in cold shutdown
- ATWS

Site Area Emergency (EPIP-05)

- Loss of most or all annunciators and plant transient indicated or in progress
- Imminent loss of physical control of the plant
- Complete loss of any function needed for plant hot shutdown, when in hot shutdown
- Control room evacuated and local control of shutdown systems not established within 15 minutes

General Emergency (EPIP-06)

- Loss of physical control of the facility

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TAB 4

Fire and/or Security Compromise

Notification of Unusual Event (EPIP-03)

- Fire within the Unit lasting longer than 10 minutes
- Declared Security Emergency
- Declared Security Alert (with offsite authorities notified and immediate response requested)

Alert (EPIP-04)

- Required evacuation of control room
- SS/EC determines that the level of plant safety is substantially reduced due to fire or ongoing security compromise.

Site Area Emergency (EPIP-05)

- Imminent loss of physical control of the plant
- Control room evacuated and local control of shutdown systems not established within 15 minutes
- Fire compromising the operability of safety systems in both trains

General Emergency (EPIP-06)

- Loss of physical control of the plant
- Any major internal or external events which could cause massive damage to plant systems potentially leading to releases of large amounts of radioactivity

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TAB 5

Natural Disaster/Physical Hazard to Facility

Notification of Unusual Event (EPIP-03)

- Natural phenomenon beyond usual level experienced or projected

  Earthquake greater than 0.1g ground shaking, flood, tornado onsite

- Other hazards experienced or projected

  Aircraft crash onsite or unusual aircraft activity over facility

  Train derailment onsite

  Explosion near or onsite

  Toxic or flammable gas release near on onsite

  Turbine rotating component failure resulting in rapid shutdown

Alert (EPIP-04)

- Severe natural phenomena experienced or projected with unit in modes 5-6

  Earthquake greater than design levels, 0.2g ground shaking,

  Tornado striking facility, or

  Severe flooding

- Other hazards experienced or projected

  Aircraft crash on facility

  Missile impacts on facility

  Explosion damage to facility affecting plant operation

  Toxic or flammable gas restricts entry to facility environs

CONTROLLED DOCUMENT

Site Area Emergency (EPIP-05)

- Severe natural phenomena experienced or projected with unit in modes 1-4

  Earthquake greater than design levels, 0.2 ground shaking,

  Flood with failure of protection of vital equipment

  Sustained winds in excess of design levels

- Other hazard experienced or projected with unit in modes 1-4

  Aircraft crash affecting vital structures by impact

  Severe damage to safe shutdown equipment by missile or explosion

  Lack of entry into vital areas due to uncontrolled toxic or flammable gas

General Emergency (EPIP-06)

- Any major internal or external events which could cause massive damage to plant systems potentially leading to release of large amounts of radioactivity

CONTROLLED DOCUMENT

Site Area Emergency (EPIP-05)

- Severe natural phenomena experienced or projected with unit in modes 1-4

  Earthquake greater than design levels, 0.2 ground shaking,

  Flood with failure of protection of vital equipment

  Sustained winds in excess of design levels

- Other hazard experienced or projected with unit in modes 1-4

  Aircraft crash affecting vital structures by impact

  Severe damage to safe shutdown equipment by missile or explosion

  Lack of entry into vital areas due to uncontrolled toxic or flammable gas

General Emergency (EPIP-06)

- Any major internal or external events which could cause massive damage to plant systems potentially leading to release of large amounts of radioactivity

CONTROLLED DOCUMENT

CLASSIFICATION CRITERIA

1.0 CLASSIFICATION CRITERIA

The classification criteria for Notification of Unusual Event through a General Emergency are based on three main considerations:

1) The extent of fission product barrier challenge or failure

2) The projected/actual offsite dose rate associated with radioactivity releases.

3) Potential or actual reductions in the level of plant safety

Evaluation of these criteria allows the development of Emergency Action Levels (EALs) which are independent of event sequences and readily correlate with the symptom/function based Emergency Operating Procedure (EOP) Guidelines.

Using this system, most emergency classifications may be based on the failure of, or challenge to, the fission product barriers. "Failure" of barriers is defined in terms consistent with NUREG-0654, Appendix 1, Example Initiating Conditions - eg: primary coolant leaks of 50 gpm constitutes "failure" of the primary coolant boundary (based on charging pump capacity for 2 pumps minus minimum letdown); 300 uCi/cc dose equivalent I-131 constitutes "failure" of the clad (based on release of 1% equilibrium gas gap equivalent I-131); loss of containment integrity is defined per Technical Specification Section 1.7.

A "challenge" to a barrier is defined as one of the following conditions:

1) Loss of a critical safety function which protects that barrier.

2) An existing situation which will cause a barrier failure within a given time period unless successful corrective actions are implemented.

3) An initiating event which in all probability has damaged a fission product barrier but has yet to be verified.

The SS/EC has the authority to increase the classification above that determined by EPIP-02 when, in his judgement, plant conditions warrant increased response and awareness from offsite personnel and agencies.

CONTROLLED DOCUMENT

Table 3.0 lists indications of barrier challenge/failure for RCS, Clad, Containment, and vital auxiliaries/radiation release.

The fission product barrier criteria is applied to event classification in increasing order of severity as follows:

NOTIFICATION OF UNUSUAL EVENT

1. No loss of and no challenge to a fission product barrier

ALERT

1. A challenge to one barrier, or

2. A verified failure of one barrier

SITE AREA EMERGENCY

1. Challenges to two barriers, or

2. Verified failure of one barrier and a challenge to another, or

3. Verified failure of two barriers

GENERAL EMERGENCY

1. Challenges to all three barriers, or

2. Verified failure of one barrier and challenges to the other two, or

3. Verified failure of two barriers and challenge to the other, or

4. Verified failure of all three barriers

Guidance for evaluation and classification of non Rx trip events is taken directly from NUREG 0654. The arrangement of example situations by event categories provides an efficient method for the operator to make a classification depending upon the severity of the condition.

CONTROLLED DOCUMENT

2.0 EVENT CLASSIFICATION

Appendices A and B present potential plant conditions for consideration in determining event classification. SRO's and Emergency Coordinators responsible for implementing this procedure are required to be familiar with the specific conditions which constitute barrier challenge/failure and those non trip events requiring emergency classification.

Appendix A lists possible challenges/failures that might exist to the fission product barriers. A check by any of the indicated conditions constitutes one barrier challenge or failure. (Therefore, if two conditions under "RCS" are checked, that constitutes two barriers challenged or failed.) Event classification will be made after evaluating the number and extent of barrier challenge/failure along with the projected doses resulting from any offsite releases. The activity release levels associated with emergency classification levels are based on the following NUREG-0654 criteria:

Unusual Event -	Exceed Tech Spec 3/4.11 Radiological Effluent limits.
Alert -	Effluent release rate 10X Tech Spec limits or 1 mR WB @ site boundary for 2 hr release.
Site Area Emergency -	> 50 mR/hr WB @ site boundary for 30 min. release or > 500 mR/hr WB @ site boundary for 2 min release.
General Emergency -	> 1 rem/hr WB @ site boundary.

The Site Area Emergency classification is divided into activity concentrations that must be maintained for either two or thirty minutes in order for the offsite dose limits to be met or exceeded.

Appendix B provides guidance for evaluating conditions not resulting in a Rx trip that require emergency classification per NUREG-0654. Five event categories have been selected, under which, similar non trip events can be listed according to emergency classification. Most classification should be straightforward once the event category has been selected. Event classifications based upon degraded security conditions, however, can be somewhat more involved.

CONTROLLED DOCUMENT

The PVNGS Security Department classifies security infractions into two types: |4

1. Security Alert

2. Security Emergency

Any declared Security Emergency will be classified as a Notification of Unusual Event. Should any plant damage, loss of facility control, or loss of accessability result from a degraded security condition, the guidelines for upgrading the emergency classification are in Tab 3, Degraded Facility Control, and Tab 5, Physical Hazards to Facility. Should a security compromise further degrade such that a substantial reduction in the level of plant safety occurs, an alert classification is appropriate. The Shift Supervisor's/Emergency Coordinator's judgement will be required to determine the severity of the security intrusion and the likelihood that a fission product barrier might be challenged to warrant the upgraded emergency classification.

Security compromises resulting in a declared Security Alert with immediate response requested from offsite authorities is also classified Notification of Unusual Event. This will ensure notification of appropriate company management personnel to off-normal conditions serious enough to warrant immediate response from offsite authorities. Security Alerts of a less serious nature where offsite authority assistance is requested would not require classification. It should be understood that the key point to consider for classification of Security Alerts is whether offsite authorities are notified to provide immediate response or assistance.

Table 4.0 lists applicable licensee actions per event classification. These actions will be implemented per the direction of the appropriate EPIP.

CONTROLLED DOCUMENT

TABLE 3.0

Indications of Barrier Challenge/Failure

RCS

____ RVLMS indicates voiding in upper plenum

____ RCS pressure > 2750 psia

____ Uncontrolled loss of RCS inventory > 50 gpm

CLAD

____ ATWS

OR

Excessive RCS Activity (> 300 uCi/gm dose equivalent I-131)

____ CET > 700 F

CONTAINMENT

____ Physical breach of containment

OR

CIAS required but not completed (i.e. both automatic valves in a penetration fail to close)

____ H_2 concentration > 3.5% by volume

____ Containment pressure > 50 psig

VITAL AUXILIARIES/RADIATION RELEASE

____ Loss of offsite and onsite AC power

____ Loss of offsite and onsite AC power for longer than 60 minutes

____ Loss of all Class IE DC power.

____ Loss of all Class IE DC power for longer than 15 minutes.

____ Failure of ESF safety systems (both trains) to actuate when required

____ > 10 gpm primary/secondary leakage concurrent with LOP

OR

> 10 gpm primary/secondary leakage concurrent with loss of secondary coolant outside containment

TABLE 4.0 LICENSEE ACTIONS

NOTE
Actions are for information only, to be carried out per applicable EPIP

Unusual Event (EPIP-03)	Alert (EPIP-04)	Site Area Emergency (EPIP-05)	General Emergency (EPIP-06)
o Inform NRC, State & County authorities of nature of unusual conditions; no release of radioactive material requiring offsite response or monitoring is expected unless further degradation of safety systems occur	o Inform NRC, State & County authorities of Alert status/cause; any releases are expected to be limited to small fractions of EPA/PAG exposure levels at the site boundary unless further degradation of safety systems occur	o Inform NRC, State & County authorities of site Area Emergency status/cause; any releases are not expected to exceed EPA/PAG exposure levels beyond the site boundary unless further degradation of safety systems occur	o Inform NRC, State & County authorities of General Emergency status/cause; any releases can be reasonable expected to exceed EPA/PAG exposure levels offsite for more than the immediate site area
o Based on the situation recommend that no protective action is necessary or to standby for update	o Recommend to the State that the Public be appraised of the situation and stay tuned to EBS/KIAR radio station	o Recommend to the State that consideration of appropriate protective actions based on actual or projected data is warranted per the appropriate EPIP	o Recommend to the State that consideration of appropriate protective actions based on actual or projected data is warranted per the appropriate EPIP
o Augment onshift resources	o Augment resources by activating SITC, TSC, OSC, EOF, JENC, CHIC and CEC	o Augment resources by ativtg. SITC, TSC, OSC, EOF, JENC, CHIC, and CEC	o Augment resources by ativtg. SITC, TSC, OSC, EOF, JENC, CHIC and CEC
o Activate SITC	o Dispatch (onsite/offsite) Monitoring Teams with assoc. communications equipment	o Dispatch (onsite/offsite) Field Monitoring Teams with associated communications equipment	o Dispatch (onsite/offsite) Field Monitoring with associated communications equipment
o Partially activate CHIC	o Provide meteorological assessments to offsite authorities and if releases are occurring, dose estimates for actual releases	o Provide a dedicated individual for plant status updates to offsite authorities	o Provide a dedicated individual for plant status updates of offsite authorities
o Terminate with verbal summary to offsite authorities followed by written report within 24 hours OR	o Terminate by verbal summary to offsite authorities followed by written summary within 8 hours OR	o Provide meteorological data and dose estimates (for actual releases) to offsite authorities	o Make senior technical and management staff available for periodic consultation with NRC and State
o Escalate to a higher classification	o Escalate to a higher classification	o Provide release and dose projections based on available plant condition information and foreseeable contingencies	o Provide meteorological data and dose estimates (for actual releases) to offsite authorities via a dedicated individual
		o Terminate (or reduction of) emergency class verbally at EOF followed by written summary within 8 hours OR	o Provide release and dose projections based upon available plant condition information and foreseeable contingencies
		o Escalate to GENERAL EMERGENCY	o Terminate (or reduction of) emergency

*Protective action recommendations are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-03	
NOTIFICATION OF UNUSUAL EVENT IMPLEMENTING ACTIONS	REVISION 10	Page 1 of 26

ASSIGNED COPY
PVNGS #8-9B

DEPT. HEAD Harry F. Bielby for Dennis Gross DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01.15.86

DN-1598A/0787A

PV216-00DA (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-03	
NOTIFICATION OF UNUSUAL EVENT IMPLEMENTING ACTIONS	REVISION 10	Page 2 of 26

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
5	12-18-84	Complete	Revised Appendices and Callouts
6	02-08-85	Complete	Incorporated PCN's #01 & 02 of Rev. 5 Revised Appendices and Callouts.
7	05-10-85	9, 10, 16	Incorporated PCN #01 of Rev. 6 and added step for cancellation using group page.
8	06-17-85	3,7,8,9,12,13 16,17,18,19, 21,23	Added termination message form and instructions. Changed initial and follow-up message 50 actions (circle vs cross-out) are consistent. Changed initial and follow-up message to match changes the state requested. Capitalized announcements to make stand out. Updated all references to the correct appendices.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-03	
NOTIFICATION OF UNUSUAL EVENT IMPLEMENTING ACTIONS	REVISION 10	Page 3 of 26

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
9	09-10-85	4, 5, 7, 9, 10, 11, 12, 19, 20, 24, 25, 26	Incorporated PCN# 1 & 2 of Rev. 8. Added specific announcement instructions, instructions for notifing compliance, new group paging system # and added STSC Communication checklist.
10	~~09-10-85~~ 01-15-86 effective date	4, 7, 9, 10, 11, 12, 13, 14, 16, 17, 24, 25, 26	Incorporated PCN# 1 & 2 of Rev. 9. Deleted Time/ Initials Column in Appendices I and J.

TABLE OF CONTENTS

APPENDICES

10

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 This procedure provides a series of implementing actions to be taken upon declaration of a NOTIFICATION OF UNUSUAL EVENT.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-02, "Emergency Classification"

2.1.2 EPIP-11, "Technical Support Center/Satellite TSC Activation"

2.1.3 EPIP-22, "Personnel Injury"

2.1.4 EPIP-23, "Fire Fighting"

2.1.5 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

2.2.2 PVNGS Emergency Plan, Rev. 6

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change or more definitive information is obtained.

3.2 Notifications to State/County agencies per Appendix A, "Emergency Notification Call List - Emergency Coordinator/STSC Communicator" shall be commenced within 15 minutes of declaration of an emergency.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 In a NOTIFICATION OF UNUSUAL EVENT situation, time is available to take precautionary and constructive steps to prevent a more serious event and/or to mitigate any consequences that may occur. This event status places the plant in a readiness position for possible cessation of routine activities and/or augmentation of onshift resources. No releases of radioactive material requiring offsite response are expected. Appropriate notification of NRC and state/county authorities is made.

4.1.2 The Shift Supervisor shall be responsible for initiating this procedure. The Emergency Coordinator shall be responsible for completing the implementing actions of this procedure.

4.2 Prerequisites

4.2.1 The emergency has been classified per EPIP-02, "Emergency Classification."

4.3 Instructions

4.3.1 The affected unit Shift Supervisor shall perform the following:

NOTE

Designated Unaffected Unit Shift Supervisor to assume the role of the Emergency Coordinator in the Onshift Emergency Organization are:

Affected Unit	Unaffected Unit Shift Supervisor
Unit 1	Unit 2
Unit 2	Unit 1
Unit 3	Unit 2
Entire Site	Unit 1

4.3.1.1 Notify the Shift Supervisor of the designated unaffected unit (or Shift Supervisor of an unaffected unit) to report to the Control Room of the affected unit and assume the duties of the onshift Emergency Coordinator. For NOTIFICATION OF UNUSUAL EVENT, it will be at the discretion of the affected unit Shift Supervisor if he is to be relieved as Emergency Coordinator by the shift supervisor of an unaffected unit.

4.3.1.2 Notify the Control Rooms of the unaffected units.

10

4.3.1.3 Ensure the following is announced over the plant wide telephone page [redacted]

"ATTENTION ALL PLANT PERSONNEL - A NOTIFICATION OF UNUSUAL EVENT HAS BEEN DECLARED. SATELLITE TECHNICAL SUPPORT CENTER AND OPERATIONS SUPPORT CENTER EMERGENCY PERSONNEL FOR UNIT _____, REPORT TO YOUR EMERGENCY STATION. OTHER PERSONNEL ASSIGNED TO THE EMERGENCY ORGANIZATION - STANDBY. ALL OTHER PERSONNEL CONTINUE WITH NORMAL ROUTINE UNTIL FURTHER NOTICE".

(Give a brief description of the event, if appropriate, and repeat the announcement).

4.3.1.4 Ensure the announcement in step 4.3.1.3 is repeated over the Site Warning Siren/Public Address System.

10

NOTE

Protective Action recommendations (Appendix H) are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress.

NOTE

If the emergency is terminated before initial notifications are finished, complete the notifications per Appendix A, then repeat Appendix A with the notification of termination. If the emergency is terminated before initial notification can be started, provide both initiating and terminating messages in the same call.

4.3.1.5 Direct the Satellite TSC Communicator to fill out Appendix C, "Initial Emergency Message Form," in accordance with instructions provided in Appendix F, and make notifications per Appendix A.

4.3.1.6 Ensure the actions of the appropriate Recovery procedures have been implemented.

4.3.2 The Emergency Coordinator/Shift Supervisor shall perform the following:

4.3.2.1 Ensure actuation of the Satellite TSC in accordance with EPIP-11, "Technical Support Center/Satellite TSC Activation."

4.3.2.2 Implement additional Emergency Plan Implementing Procedures according to the situation that resulted in the emergency being classified as a NOTIFICATION OF UNUSUAL EVENT.

4.3.2.3 Determine the need for any additional personnel. If needed, additional personnel should be requested by the existing on-shift organization.

4.3.2.4 If it is determined that the OSC is not required to support the emergency response, notify the OSC to deactivate and allow the response personnel to respond to normal work stations.

4.3.2.5 Direct the STSC Communicator to prepare Appendix D, "Follow-up Emergency Message Form" in accordance with instructions provided in Appendix F.

4.3.2.6 Reevaluate the emergency classification and perform licensee actions as conditions change by implementing EPIP-02.

4.3.2.7 When the situation warrants downgrading/upgrading a NOTIFICATION OF UNUSUAL EVENT, proceed to appropriate implementing and notification procedures and direct the Shift Supervisor to announce the reclassification over the public address system and inform the other Control Rooms. Keep PVNGS Plant Manager informed as to status of event.

4.3.2.8 Provide over all direction and control of the ONSHIFT emergency response as per Appendix I - Emergency Coordinator Response. 10

4.3.3 PVNGS Security, after being notified by the Emergency Coordinator or STSC Communicator that a NOTIFICATION OF UNUSUAL EVENT is in progress or has occurred, or has been terminated, shall complete Appendix B, "Emergency Notification Call List - PVNGS Security," and notify these individuals or departments of the situation.

4.3.4 Emergency Situation Terminated

4.3.4.1 Consult with the PVNGS Plant Manager prior to closing out emergency.

4.3.4.2 The Shift Supervisor (or Emergency Coordinator) shall ensure the following announcement is made over the plant wide telephone page (phone no. 800):

"ATTENTION ALL PERSONNEL, THE EMERGENCY SITUATION DECLARED IN UNIT _____ HAS NOW BEEN TERMINATED." (Provide special instructions as necessary).

4.3.4.3 Ensure the announcement in step 4.3.4.2 is repeated over the site warning siren/public address system.

4.3.4.4 Ensure the announcement in steps 4.3.4.2 and 4.3.4.3 is repeated once.

4.3.4.5 Direct the STSC Communicator to fill out Appendix E, "Emergency Termination Message Form," per instructions provided in Appendix F.

4.3.4.6 Direct the STSC communicator to transmit the termination per Appendix A.

4.3.4.7 The S.S./E.C. shall notify the PVNGS Compliance Dept. at ext. [redacted] (or beeper No. [redacted] during off hours) and request a written summary be provided to offsite authorities within 24 hours. S.S./E.C. shall provide copies of shift logs, control room logs, etc. as requested by Compliance for preparation of the report.

4.3.5 Record Retention

4.3.5.1 Appendices A, B, C, D, E, ~~I and J~~ MAP shall be turned over to the Emergency Planning Dept., mail station 6010, to ensure they are forwarded to DDC for proper storage in accordance with 9N219.05.00, "Document/Record Turnover Control." 10

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EMERGENCY NOTIFICATION CALL LIST

EMERGENCY COORDINATOR/SITSC COMMUNICATOR

AGENCY OR INDIVIDUAL	PRIMARY LINK	ALTERNATE LINK	INITIAL DATE/TIME	INITIAL CALLER	ALTERNATE LINK	TERMINATION DATE/TIME	TERMINATION CALLER
Arizona Department of Public Safety	NAR	Radio System Channel 8 Frequency	/		N/A	/	
Maricopa County Sheriff's Office	NAR	Radio System Channel 8 Frequency	/		N/A	/	
Arizona Radiation Regulatory Agency	NAR	Radio System Channel 8 Frequency	/		N/A	/	
Arizona Division of Emergency Services	NAR	Radio System Channel 8 Frequency	/		N/A	/	
Maricopa County Department of Civil Defense and Emergency Services	NAR	Radio System Channel 8 Frequency	/		N/A	/	
PVNGS Security	[redacted]		/		N/A	/	
Group Paging System #1			/		N/A	/	
Group Paging System #2			/		N/A	/	
PVNGS Plant Manager			/		N/A	/	
Operations Manager			/		N/A	/	
Manager*			/		N/A	/	
Maintenance Manager *			/		N/A	/	
Plant Services Manager*			/		N/A	/	
Dispatcher (SOC)			/		[redacted]	/	
NRC Headquarters			/		N/A	/	

* Call these personnel in sequence until one of them is reached only if unable to contact PVNGS Plant Manager or Operations Manager.

PV216-000A (8/82)

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EMERGENCY NOTIFICATION CALL LIST - PVNGS SECURITY

AGENCY OR INDIVIDUAL	PRIMARY LINK	ALTERNATE LINK	INITIAL DATE/TIME	INITIAL CALLER	TERMINATION DATE/TIME	TERMINATION CALLER
Corporate Security	[redacted]		/		/	
Site Construction Security Office			/		/	
Nuclear Administration			/		/	
ANPP Communications*			/		/	
ANPP Site Construction Office*			/		/	
Bechtel Emergency Control Center*			/		/	

*Available during working hours only.

PV216-000A (8/82)

INITIAL EMERGENCY MESSAGE FORM
NOTIFICATION OF UNUSUAL EVENT,
ALERT, SITE AREA EMERGENCY, OR GENERAL EMERGENCY

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
(circle applicable classification)

declared at _____ (time) - _____ (date) - Wind is from _____ degrees - At _____ (speed) mph.

PALO VERDE AUTHENTICATOR _____
(authenticator letters)

2. This is _____ (name/title), at the Palo Verde Nuclear Generating Station Unit _____. 10

3. (Circle One)

(a) There is NO, repeat NO, radioactive release taking place and no special protective actions are recommended at this time.

OR

(b) There is NO, repeat NO, radioactive release in excess of allowable operating limits and NO protective actions are recommended at this time.

OR

(c) There is NO, repeat NO, radioactive release taking place at this time. However, the following protective actions are recommended.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(d) A radioactive release IS, repeat IS, taking place. We recommend that people in affected sectors remain indoors with windows and doors closed.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(e) A radioactive release IS, repeat IS, taking place. We recommend that evacuation of affected sectors be considered.

Sectors	Distance (Miles)
_____	_____
_____	_____

4. THIS IS (IS NOT) A DRILL!! (Circle One)

Approved By _____
(SS/EC/EOD) DATE TIME

FOLLOW-UP EMERGENCY MESSAGE FORM

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL!! (Circle One)
   THIS IS A PALO VERDE NUCLEAR GENERATING STATION follow-up information message concerning the (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
   (circle applicable classification)

   declared at _____ - _____
   (time) (date)

2. This is _____ _____, at Palo Verde Nuclear Generating Station. Unit ____. (name/title) 10

3. Brief description of event _____

   _____

   _____

   _____

   _____

   _____

4. Meteorological Data

   a. Wind direction from _____ (degrees) - at _____ miles per hour
   (direction) (speed)

   from _____ to _____
   (sector) (sector)

   b. Stability Class: A B C D E F G
   (Circle One)

   c. Precipitation Yes No
   (Circle One)

5. Radiological Data

   a. Radioactvity (check one)

   ( ) Has been released
   ( ) Has not been released

CONTROLLED DOCUMENT

5. b. Release Time _____

   c. Reactor Trip Time _____

   d. Location/Source of Release _____

6. Current Release Rates

   a. I-131 Equivalent _____ Ci/second
   b. Noble Gas _____ Ci/second
   c. Particulates _____ Ci/second

7. Two-hour plume centerline projected dose at:

Distance	Sector	Whole Body Dose (REM)	Child Thyroid Dose Commitment (REM)
Site Boundary			
2 miles			
5 miles			
10 miles			

8. Plume arrival time offsite:

   _____ 2 mi
   _____ 5 mi
   _____ 10 mi
   _____ Ruth Fisher School
   _____ Arlington School

9. Estimated duration of release _____ minutes

10. The Following Emergency Measures Including Protective Actions are Recommended:

_____

_____

_____

11. The Following Emergency Response Actions are Underway:

_____

_____

_____

12. We Request the Following Onsite Support and Assistance from Offsite Sources:

_____

_____

_____

13. Our Prognosis of the Emergency is that Conditions:

_____Are Under Control
_____Can Be Expected to Terminate Within _____hours
_____Are Worsening

14. Other Information:

a) Power Prior to Event _____
b) Current Power on mode _____
c) Mode of Operation Till Correction _____
d) Estimated Time to Restart _____

15. THIS IS (IS NOT) A DRILL!! (Circle One)

10

CONTROLLED DOCUMENT

EMERGENCY TERMINATION MESSAGE FORM

1. Verbatim text of message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION. THE (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY) (circle approprite classification) DECLARED AT _____ - _____ HAS BEEN TERMINATED AT
   (Time) (Date)

   _____ - _____.
   (Time) (Date)

2. This is _____, at Palo
   (Name) (Title)
   Verde Nuclear Generating Station Unit ____. 10

3. PALO VERDE AUTHENTICATOR _____.
   (Authenticator Letters)

Approved: _____
(SS/EC/EOD) Date/Time

INSTRUCTIONS FOR COMPLETING APPENDIX C, D OR E

1.0 INITIAL EMERGENCY MESSAGE FORM (APPENDIX C)

1.1 Fill in data required by steps 1 and 2 of Appendix C, "Initial Emergency Message Form." Obtain authenticator from the confidential envelope marked on the outside with the appropriate month and drill sequence number (if it is a drill).

1.2 Obtain from the Radiation Protection Monitor (onshift) data required to complete step 3 of Appendix C.

1.3 Circle appropriate wording of step 4 of Appendix C.

NOTE

When the NAN ring button is pushed and it appears that all the receiving stations are on line, or, the ring has stopped, the PVNGS originating station shall initiate a roll call in the order listed below. (Consider the time of day)

NOTE

If the NAN dedicated telephone fails, refer to Appendix G, "Notification Alert Network (NAN) Radio Backup" for instruction on using channel 8, KON-511, for notifications.

1.4 By means of a single call on the Notification and Alert Net dedicated telephone, contact the following State/County agencies listed in Appendix A.

Duty Hours (8:00 a.m. to 5:00 p.m. Monday-Friday)

Maricopa County Sheriffs Office
Maricopa County Department of Civil Defense and Emergency Services
Arizona Department of Public Safety
Arizona Division of Emergency Services
Arizona Radiation Regulatory Agency

Off-Duty Hours (5:00 p.m. to 8:00 a.m., Monday-Friday, all day Saturday, Sunday and Holidays)

Maricopa County Sheriff's Office
Department of Public Safety

1.5 In the event that an offsite government agency (or agencies) does not answer the NAN phone or NAN backup radio during a test, drill, or actual emergency, the nuclear operator (or STSC Communicator) shall notify the agency via regular PBX telephone (numbers listed in App. A)

1.6 When contact is made, the caller shall identify himself and request that the individuals obtain a copy of the appropriate Emergency Message Form.

1.7 When each individual has obtained a copy, read the completed Emergency Message Form verbatim and request MCSO to read back verbatim.

1.8 Offer to repeat information and reiterate as necessary.

NOTE

To verify the group page activation, monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

1.9 Notify additional personnel as listed in Appendix A as necessary and inform them of the situation. Provide the following message for both Group Paging Systems Notification/Callout:

"THIS IS PVNGS, UNIT ___, CLASSIFICATION ONE, PLEASE RESPOND APPROPRIATELY" (Repeat message once).

1.10 If an individual requests information not contained in the Emergency Message Form, make reasonable efforts to obtain and give the information only after all initial notifications have been made.

1.11 Contact the NRC via the Emergency Notification System (ENS) dedicated telephone within 60 minutes of declaring an emergency. If the ENS phone fails, use commercial phone or HPN phone as an alternate line.

1.12 When contact is made, the caller shall identify himself and read the completed Emergency Message Form verbatim (omit the Palo Verde Authenticator).

1.13 Offer to repeat information and reiterate as necessary.

2.0 FOLLOW-UP EMERGENCY MESSAGE FORM (APPENDIX D)

2.1 Fill in data required by steps 1-3 of Appendix D, "Follow-up Emergency Message Form."

NOTE

If the emergency is non-radiological in nature, steps 4-9 may be deleted.

2.2 Obtain from the Radiation Protection Monitor data required to complete steps 4-9.

2.3 Obtain from the Emergency Coordinator data required to complete steps 10-14.

2.4 Circle appropriate wording in step 15.

2.5 Dispense information when requested by offsite agencies (NRC or ARRA).

3.0 EMERGENCY TERMINATION MESSAGE FORM (APPENDIX E)

3.1 Fill in data required by steps 1-3 to Appendix E, "Emergency Termination Message Form."

3.2 Obtain approval from SS/EC/EOD.

3.3 Transmit termination per Appendix A.

NOTE

To verify the group page activation, monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

3.4 When using the Group Paging Systems to announce event termination, use the following message:

"THIS IS PVNGS, UNIT ____, EMERGENCY TERMINATED. PLEASE CANCEL RESPONSE TO EMERGENCY."

CONTROLLED DOCUMENT

NOTIFICATION ALERT NETOWRK (NAN) RADIO BACKUP

CHANNEL 8 - KON511

In case of failure of the NAN ringdown telephone, the NAN backup is Channel 8 on the PVNGS radio. FCC regulations require the Palo Verde designator 'KON-511' be used to precede and conclude all outgoing communications.

1. Take control of the radio channel by saying: "All stations this net," (Repeat) "All stations this net, this is K-O-N 5-1-1 Palo Verde to all 5-1-1 stations, stand by for Warning Point roll call."

2. Wait 30 seconds to allow the offsite agencies to get to their radios, then repeat the previous transmission.

NOTE

After 5 P.M. weekdays, all day Saturday, Sunday or holidays, Maricopa County Sheriff's Office (MCSO) and Department of Public Safety (DPS) will be the only agencies responding.

3. Initiate roll call of the offsite government agencies, allowing stations on the net to respond.

   3.1 "5-1-1 Palo Verde to 5-1-1 Maricopa County Sheriff's Office. Do you copy?" Allow response: "5-1-1 MCSO copies."

   3.2 "5-1-1 Palo Verde to 5-1-1 Maricopa County Department of Civil Defense & Emergency Services. Do you copy?" (MCDCD&ES) Allow response: "5-1-1 Civil Defense copies."

   3.3 "5-1-1 Palo Verde to 5-1-1 Department of Public Safety. Do you copy?" Allow response: "5-1-1 DPS copies."

   3.4 "5-1-1 Palo Verde to 5-1-1 Arizona Division of Emergency Services. Do you copy?" Allow response: "5-1-1 ADES (State EOC) copies."

   3.5 "5-1-1 Palo Verde to 5-1-1 Arizona Radiation Regulatory Agency. Do you Copy?" Allow response: "5-1-1 ARRA copies."

CONTROLLED DOCUMENT

NOTIFICATION ALERT NETWORK (NAN) RADIO BACKUP (CONT'D)

CHANNEL 8 - KON511

4. Upon completion of roll call, transmit the notification message verbatim. Take an acknowledgement roll call, allowing MCSO to read the message back in its entirety, and provide assistance or clarification, as needed.

5. Upon completion of the second roll call, announce: "K-O-N 5-1-1 Palo Verde off." This is the required FCC sign-off.

6. Continue notifications per Step 1.8 of Appendix F.

CONTROLLED DOCUMENT

PROTECTIVE ACTION RECOMMENDATIONS

Classification Category	Protective Actions Recommendations
Notification of Unusual Event- events are in progress which indicate a potential degradation of the level of safety of the plant; however, no releases of radioactive material requiring offsite response/monitoring are expected unless further degradation of safety systems occur.	Inform state and county authorities of NUE status/ cause and based on the situation recommend that no protective action is necessary or to standby for an update due to potential degradation of plant safety.

CONTROLLED DOCUMENT

EMERGENCY COORDINATOR RESPONSE

POSITION FILLED BY: Onshift Organization

1) Shift Supervisor of the designated unaffected unit
2) Shift Supervisor of the affected unit

RESPONSIBILITY: The individual onsite with the responsibility and authority to immediately and unilaterally initiate emergency actions, including providing notification and protective action recommendations to governmental authorities responsible for implementing offsite emergency measures. Provide overall direction and control of the ONSHIFT Emergency response.

INITIAL RESPONSE

1. Ensure plant wide public address announcement is made as per steps 4.3.1.3 and 4.3.1.4 of this procedure.

2. Activate the Satellite STSC per EPIP-11, "Technical Support Center/Satellite TSC Activation."

3. Commence notification process per Appendix F or direct the STSC Communicator to do same.

4. Notify unaffected unit control rooms of situation.

5. Verify personnel resources are on standby in the OSC.

6. Provide plant wide public address announcement when the the STSC is activated.

7. Implement EPIPs according to the situation that resulted in the classification.

SUBSEQUENT RESPONSE

8. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

   (1) For a fire, dispatch the Fire Team and order the Security Director to contact the Bechtel or alternate Fire Department for assistance (if required)

10

EMERGENCY COORDINATOR RESPONSE

(2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

9. Determine the need for additional personnel and directthe Security Director to initiate call out.

10. If it is determined that the OSC is not required to support the emergency response, notify the OSC to deactivate and allow the response personnel to return to normal work stations.

11. As appropriate, complete Follow-up Emergency Message Form.

12. Reevaluate the emergency classification as conditions change per EPIP-02, reclassify as necessary. Keep PVNGS Plant Manager informed as to status of event.

13. Reassess corrective and protective actions. Verify activities underway.

Recovery

14. Consult with the PVNGS Plant Manager prior to closing out emergency.

15. Complete notifications per Appendix F when emergency is closed out or direct the STSC Communicator to do the same.

16. Provide termination announcement or direct Shift Supervisor to provide same per steps 4.3.4.2 and 4.3.4.3 of this procedure.

17. Notify PVNGS Compliance at ext. [redacted] of event termination. Provide logs as requested.

* Continuing Activity

10

STSC COMMUNICATOR RESPONSE

POSITION FILLED BY: Nuclear Operator from affected unit

RESPONSIBILITY: Initiate the notification process as directed by the onshift Emergency Coordinator. Ensure operability of communications equipment. Maintain communications logbook.

IMMEDIATE ACTIONS

STSC Activation

1. Report to the STSC upon notification.

Notification of UNUSUAL EVENT

2. Complete the Initial Emergency Message Form as directed by the onshift Emergency Coordinator or Shift Supervisor.

3. Initiate notification process as directed by Emergency Coordinator (or Shift Supervisor, in his absence).

4. Inform Emergency Coordinator when initial notifications are complete.

5. Contact the Security Director and inform him to call in additional personnel if so directed by Emergency Coordinator.

6. Complete the Follow-up Message Form as directed by the Emergency Coordinator.

*7. Provide follow-up information when requested by the State/County agencies.

*8. Maintain records of communications received or transmitted offsite.

9. Complete Emergency Termination Message Form as directed by the onshift Emergency Coordinator or Shift Supervisor upon event termination.

10. Transmit termination per Appendix A.

* Continuing Activity

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 1 of 38

ASSIGNED COPY
PVNGS # 8-9B

DEPT. HEAD Nancy F. Bieling for Dennis Gaus DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1599A/0180A

PV216-000A (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 1 of 38

ASSIGNED COPY
PVNGS # 8-9B

DEPT. HEAD Nancy F. Bailey for Dennis Gaus DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 12/2/85

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ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 1 of 38

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PVNGS # 8-9B

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APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1599A/0180A

PV216 00DA (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 2 of 38

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
5	2-28-85	All	Revised Procedure and Appendicies; added steps to clarify procedure and added appendix to provide NAN backup instructions
6	05-10-85	10, 11 and 17	Incorporated PCN #01 of Rev. 5 and added step for cancellation of emergency with group page.
7	06-19-85	3, 5, 7, 8, 9, 10, 13, 14, 17, 18, 19, 20, 22, 24, 25, & 27	Added termination message form and instructions; Capitalized announcements to make easy to indentify; Added step for announcement if accountability is performed; Changed and updated all referrals to various appendices. Also added note to provide guidance on notifications. Added information on 15 minute time requirement.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 3 of 38

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
8	09-10-85	4,6,9,11,12,	Revised to add new plan #'s
		13,14,21,22,	STSC Communicate checklist,
		26,27,29,30,	and specific instructions
		33,34,36,37,	for announcements
		38	
9	01-15-86	4,9,10,11,13,12,	Incorporated PCN #1 and 2
		14,15,16,18,	of Rev. 8, deleted
		19,26,27,28,	time/initials column in
		29,30,31,32,	Appendices I and J.
		33,34,35,36,	
		37,38	

TABLE OF CONTENTS

APPENDICES

9

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 5 of 38

1.0 OBJECTIVE

1.1 This procedure provides a series of implementing actions to be taken upon declaration of an ALERT.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-02, "Emergency Classification"

2.1.2 EPIP-11, "Technical Support Center/Satellite TSC Activation"

2.1.3 EPIP-12, "Operations Support Center Activation"

2.1.4 EPIP-13, "Emergency Operations Facility Activation"

2.1.5 EPIP-14A, "Release Rate Determination"

2.1.6 EPIP-14B, "Initial Dose Assessment"

2.1.7 EPIP-15, "Protective Action Guidelines"

2.1.8 EPIP-16, "Inplant Surveys and Sampling"

2.1.9 EPIP-17, "Onsite/Offsite Surveys and Sampling"

2.1.10 EPIP-18, "Emergency Exposure Guidelines"

2.1.11 EPIP-19, "Onsite Evacuation"

2.1.12 EPIP-20, "Personnel Assembly and Accountability"

2.1.13 EPIP-21, "Search and Rescue"

2.1.14 EPIP-22, "Personnel Injury"

2.1.15 EPIP-23, "Fire Fighting"

2.1.16 EPIP-24, "Security"

2.1.17 EPIP-25, "Reentry for Recovery Operations"

2.1.18 EPIP-26, "Potassium Iodide (KI) Administration"

2.1.19 EPIP-31, "Recovery"

2.1.20 EPIP-33, "Offsite Assistance"

2.1.21 71AC-9ZZ01, "Event Related Reporting"

2.1.22 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.2.2 PVNGS Emergency Plan, Rev. 6

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change or more definitive information is obtained.

3.2 Notifications to State/County Agencies per Appendix A, "Emergency Notification Call List-Emergency Coordinator/STSC Communicator" shall commence within 15 minutes of declaration of an emergency.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 In an ALERT situation, limited releases of radioactive material may occur and radiological/meteorological information may have to be obtained for assessment of onsite and offsite consequences. The emergency response for an ALERT includes activation of onsite and offsite emergency centers. An ALERT calls for prompt initial and follow-up notification to offsite emergency management organizations. The ALERT status is maintained until the event is terminated or reclassified.

4.1.2 The Shift Supervisor or Emergency Coordinator shall be responsible for initiating and completing implementing actions of this procedure.

4.2 Prerequisites

4.2.1 The emergency has been classified per EPIP-02, "Emergency Classification."

4.3 Instructions

4.3.1 The affected unit Shift Supervisor shall perform the following:

NOTE

Designated Unaffected Unit Shift Supervisor to assume the role of the Emergency Coordinator in the Onshift Emergency Organization are:

Affected Unit	Unaffected Unit Shift Supervisor
Unit 1	Unit 2
Unit 2	Unit 1
Unit 3	Unit 2
Entire Site	Unit 1

4.3.1.1 Notify the Shift Supervisor of the designated unaffected unit (or Shift Supervisor of an unaffected unit) to report to the Control Room of the affected unit and assume the duties of the Emergency Coordinator.

CONTROLLED DOCUMENT

NOTE

Initial notifications shall be made from the Satellite TSC by the Satellite TSC Communicator until activation of the EOF. At that time, all subsequent initial and follow up notifications shall be made by the Government Liaison Engineer in the EOF.

NOTE

If the emergency situation is terminated before initial notifications are finished, complete the notifications per Appendix A. Then repeat Appendix A with the notification of termination. If the emergency is terminated before initial notifications can be started, provide both initiating and terminating messages in the same call.

NOTE

Protective action recommendations (Appendix H) are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress.

4.3.1.2 Notify the Control Rooms of the unaffected units.

4.3.1.3 Direct the Satellite TSC Communicator (or Government Liaison Engineer) to fill out Appendix C, "Initial Emergency Message Form," in accordance with instructions provided in Appendix F.

NOTE

Initial notifications shall be made from the Satellite TSC by the Satellite TSC Communicator until activation of the EOF. At that time, all subsequent initial and follow up notifications shall be made by the Government Liaison Engineer in the EOF.

NOTE

If the emergency situation is terminated before initial notifications are finished, complete the notifications per Appendix A. Then repeat Appendix A with the notification of termination. If the emergency is terminated before initial notifications can be started, provide both initiating and terminating messages in the same call.

NOTE

Protective action recommendations (Appendix H) are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress.

4.3.1.2 Notify the Control Rooms of the unaffected units.

4.3.1.3 Direct the Satellite TSC Communicator (or Government Liaison Engineer) to fill out Appendix C, "Initial Emergency Message Form," in accordance with instructions provided in Appendix F.

NOTE

Assembly and accountability should only be performed if deemed necessary by the Shift Supervisor to maximize the health and safety of station personnel. If the decision is made to perform assembly/accountability, skip steps 4.3.1.4 and 4.3.1.5. If not, perform step 4.3.1.4 and 4.3.1.5 and skip steps 4.3.1.6, 4.3.1.7 and 4.3.1.8 and 4.3.1.9.

ACCOUNTABILITY NOT PERFORMED

4.3.1.4 Ensure the following announcement is made over the plant wide telephone page [redacted] 9

"ATTENTION ALL PLANT PERSONNEL, AN EMERGENCY SITUATION CLASSIFIED AS AN ALERT EXISTS IN UNIT _____. ALL AFFECTED UNIT EMERGENCY RESPONSE PERSONNEL AND ALTERNATES REPORT TO YOUR EMERGENCY LOCATION. ALL OTHER PERSONNEL STANDBY UNITL FURTHER NOTICE. (Provide instructions on route(s) or area(s) to avoid as appropriate and repeat the announcement.)

4.3.1.5 Ensure the announcement in step 4.3.1.4 is repeated over the site warning siren/public address system. 9

ACCOUNTABILITY PERFORMED

4.3.1.6 Ensure the accountability signal is sounded for approximately one (1) minute to alert personnel.

4.3.1.7 Ensure the following announcement is made over the plant wide telephone page [redacted] 9

"ATTENTION ALL PLANT PERSONNEL. AN EMERGENCY SITUATION CLASSIFIED AS AN ALERT EXISTS IN UNIT _____. ALL AFFECTED UNIT EMERGENCY RESPONSE PERSONNEL AND ALTERNATES REPORT TO YOUR EMERGENCY LOCATION. ALL OTHER PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY AREA." (Provide instructions on route(s) or area(s) to avoid as appropriate.)

4.3.1.8 Ensure the announcement in step 4.3.1.7 is repeated over the Site Warning Siren/Public Address System. 9

4.3.1.9 Ensure the accountability signal is resounded and the announcement in steps 4.3.1.7 and 4.3.1.8 is repeated.

4.3.1.10 Ensure that the actions of the appropriate Recovery procedures have been implemented.

4.3.2 The Emergency Coordinator/Shift Supervisor shall perform the following:

4.3.2.1 Ensure activation of the Satellite TSC in accordance with EPIP-11, "Technical Support Center/Satellite TSC Activation."

4.3.2.2 Implement additional Emergency Plan Implementing Procedures according to the situation that resulted in the emergency being classified as an ALERT.

4.3.2.3 Direct the Security Director to call in the Onsite and Offsite Emergency Organization personnel by utilizing the appropriate computer call-out listing.

4.3.2.4 Direct the STSC Communicator (or Government Liaison Engineer) to prepare Appendix D, "Followup Emergency Message Form" in accordance with instructions provided in Appendix F.

4.3.2.5 Determine the need for offsite assistance. If assistance is necessary, direct a Communicator to contact the required agency per EPIP-33, "Offsite Assistance."

4.3.2.6 Reevaluate the emergency classification and perform license actions as conditions change by implementing procedure EPIP-02.

4.3.2.7 When the situation warrants downgrading/upgrading an ALERT, proceed to appropriate implementing and notification procedures and direct the Shift Supervisor to announce the reclassification over the public address system and inform the other Control Rooms.

4.3.2.8 Provide overall direction and control of the ONSHIFT emergency response as per Appendix I - Emergency Coordinator Response. 9

4.3.3 PVNGS Security, after being notified by the Emergency Coordinator or STSC Communicator that an alert is in progress or has occurred, or has been terminated, shall complete Appendix B, "Emergency Notification Call List - PVNGS Security," and notify these individuals or departments of the situation.

4.3.4 Operations Support Center (OSC) Activation

4.3.4.1 The OSC Coordinator shall implement EPIP-12, "Operations Support Center Activation."

4.3.5 Emergency Operations Facility (EOF) Activation

4.3.5.1 The Emergency Operations Director shall implement EPIP-13, "Emergency Operations Facility Activation."

4.3.6 Emergency Situation Terminated

NOTE

Sound the 'All Clear' signal only if assembly and accountability has been initiated.

4.3.6.1 The Shift Supervisor (or Emergency Coordinator) shall ensure the All Clear signal is sounded for approximately (1) minute and that the following announcement is made over the plant wide telephone page [redacted]

"ATTENTION ALL PERSONNEL. THE EMERGENCY SITUATION DECLARED IN UNIT _____ HAS NOW BEEN TERMINATED". (Provide special instructions as necessary) 9

4.3.6.2 Ensure the announcement in step 4.3.6.1 is repeated over the Site Warning Siren/Public Address System. 9

4.3.6.3 Ensure steps 4.3.6.1 and 4.3.6.2 are repeated once. 9

4.3.6.4 Direct the STSC Communicator (or Government Liaison Engineer) to fill out Appendix E, "Emergency Termination Message Form," per instructions provided in Appendix F.

4.3.6.5 Direct the STSC Communicator (or Government Liaison Engineer) to transmit the termination per Appendix A.

4.3.6.6 At closeout or reduction of the ALERT classification, the S.S./E.C. shall notify the PVNGS Compliance Dept. at ext. [redacted] or beeper [redacted] or [redacted] and request a written summary be provided to offsite authorities within eight (8) hours. S.S./E.C. shall provide copies of shift logs, control room logs, etc., as requested by Compliance for preparation of the report.

4.3.7 Record Retention

9

4.3.7.1 Appendices A, B, C, D, E, ~~I, and J~~ H&I shall be turned over to the Emergency Planning Dept., mail station 6010, to ensure they are forwarded to DDC for proper storage in accordance with 9N219.05.00, "Document/Record Turn Over Control."

9

EMERGENCY NOTIFICATION CALL LIST

EMERGENCY COORDINATOR/BTSC COMMUNICATOR

AGENCY OR INDIVIDUAL	PRIMARY LINK	ALTERNATE LINK	ALTERNATE LINK	DATE/TIME INITIAL CALLER	DATE/TIME TERMINATION CALLER
Arizona Department of Public Safety	MAN	Radio System Channel 8 Frequency	N/A	/	/
Maricopa County Sheriff's Office	MAN	Radio System Channel 8 Frequency	N/A	/	/
Arizona Radiation Regulatory Agency	MAN	Radio System Channel 8 Frequency	N/A	/	/
Arizona Division of Emergency Services	MAN	Radio System Channel 8 Frequency	N/A	/	/
Maricopa County Department of Civil Defense and Emergency Services		Radio System Channel 8 Frequency	N/A	/	/
PVNGS Security			N/A	/	/
Group Paging System #1			N/A	/	/
Group Paging System #2			N/A	/	/
PVNGS Plant Manager			N/A	/	/
Operations Manager			N/A	/	/
Manager*			N/A	/	/
Maintenance Manager *			N/A	/	/
Plant Services Manager*			N/A	/	/
Dispatcher (SOC)			N/A	/	/
NRC Headquarters			N/A	/	/

* Call these personnel in sequence until one of them is reached ONLY if unable to contact PVNGS Plant Manager or Operations Manager.

PV216-00DA (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	APPENDIX B Page 1 of 1
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 14 of 38

9

EMERGENCY NOTIFICATION CALL LIST - PVNGS SECURITY

AGENCY OR INDIVIDUAL	PRIMARY LINE	ALTERNATE LINE	INITIAL DATE/TIME	INITIAL CALLER	TERMINATION DATE/TIME	TERMINATION CALLER
Corporate Security	[redacted]		/		/	
Site Construction Security Office			/		/	
Nuclear Administration			/		/	
ANPP Communications*			/		/	
ANPP Site Construction Office*			/		/	
Bechtel Emergency Control Center			/		/	

*Available during working hours only.

PV216-00DA (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	APPENDIX C Page 1 of 1
ALERT IMPLEMENTING ACTIONS	REVISION 9	Page 15 of 38

INITIAL EMERGENCY MESSAGE FORM
NOTIFICATION OF UNUSUAL EVENT,
ALERT, SITE AREA EMERGENCY, OR GENERAL EMERGENCY

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
(circle applicable classification)
declared at _____ (time) - _____ (date) - Wind is from _____ degrees - At _____ (speed) mph.

PALO VERDE AUTHENTICATOR _____
(authenticator letters)

2. This is _____ (name/title), at the Palo Verde Nuclear Generating Station Unit _____. 9

3. (Circle One)

(a) There is NO, repeat NO, radioactive release taking place and no special protective actions are recommended at this time.

OR

(b) There is NO, repeat NO, radioactive release in excess of allowable operating limits and NO protective actions are recommended at this time.

OR

(c) There is NO, repeat NO, radioactive release taking place at this time. However, the following protective actions are recommended.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(d) A radioactive release IS, repeat IS, taking place. We recommend that people in affected sectors remain indoors with windows and doors closed.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(e) A radioactive release IS, repeat IS, taking place. We recommend that evacuation of affected sectors be considered.

Sectors	Distance (Miles)
_____	_____
_____	_____

4. THIS IS (IS NOT) A DRILL (Circle One)

Approved _____
(SS/EC/EOD) Date Time

PV216-000A (8/92)

FOLLOW-UP EMERGENCY MESSAGE FORM

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL (Circle One) THIS IS A PALO VERDE NUCLEAR GENERATING STATION follow-up information message concerning the (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
   (circle applicable classification)

   declared at _____ - _____
   (time) (date)

2. This is _____, at Palo Verde Nuclear Generating Station Unit _____. (name/title) 9

3. Brief description of event _____

   _____

   _____

   _____

   _____

   _____

4. Meteorological Data

   a. Wind direction from _____ (degrees) - at _____ miles per hour
   (direction) (speed)

   from _____ to _____
   (sector) (sector)

   b. Stability Class: A B C D E F G
   (Circle One)

   c. Precipitation Yes No
   (Circle One)

5. Radiological Data

   a. Radioactivity (check one)

   ( ) Has been released
   ( ) Has not been released

5. b. Release Time _____

   c. Reactor Trip Time _____

   d. Location/Source of Release _____

6. Current Release Rates

   a. I-131 Equivalent _____ Ci/second
   b. Noble Gas _____ Ci/second
   c. Particulates _____ Ci/second

7. Two-hour plume centerline projected dose at:

Distance	Sector	Whole Body Dose (REM)	Child Thyroid Dose Commitment (REM)
Site Boundary			
2 miles			
5 miles			
10 miles			

8. Plume arrival time offsite:

   _____ 2 mi
   _____ 5 mi
   _____ 10 mi
   _____ Ruth Fisher School
   _____ Arlington School

9. Estimated duration of release _____ minutes

10. Following Emergency Measures Including Protective Actions are Recommended:

_____

_____

_____

11. The Following Emergency Response Actions are Underway:

_____

_____

_____

_____

12. We Request the Following Onsite Support and Assistance from Offsite Sources:

_____

_____

_____

13. Our Prognosis of the Emergency is that Conditions:

_____ Are Under Control

_____ Can be Expected to Terminate Within _____hours

_____ Are Worsening

14. Other Information:

a) Power Prior to Event (%) _____

b) Current Power or Mode _____

c) Mode of Operation till Correction _____

d) Estimated Time to Restart _____

15. THIS IS (IS NOT) A DRILL (Circle One)

9

EMERGENCY TERMINATION MESSAGE FORM

1. Verbatim text of message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION. THE (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY) (circle approprite classification) DECLARED AT _____ (Time) - _____ (Date) HAS BEEN TERMINATED AT

   _____ (Time) - _____ (Date).

2. This is _____ (Name) _____ (Title), at Palo Verde Nuclear Generating Station Unit ____. 9

3. PALO VERDE AUTHENTICATOR _____ (Authenticator Letters).

Approved: _____ (SS/EC/EOD) _____ Date/Time

INSTRUCTIONS FOR COMPLETING APPENDIX C, D OR E

1.0 Initial Emergency Message Form (Appendix C)

1.1 Fill in data required by Steps 1 and 2 of Appendix C, "Initial Emergency Message Form." Obtain Authenticator from the confidential envelope marked on the outside with the appropriate month and a drill sequence number (if it is a drill).

1.2 Obtain from the Radiation Protection Monitor (onshift) or the Radiological Assessment Coordinator (if EOF is activated) data required to complete Step 3 of Appendix C.

1.3 Circle appropriate wording of Step 4 of Appendix C.

NOTE

When the NAN ring button is pushed and it appears that all the receiving stations are on line or the ring has stopped, the PVNGS originating station shall initiate a roll call in order listed below. (Consider the time of day)

NOTE

If the NAN dedicated telephone fails, refer to Appendix G, "Notification Alert Network (NAN) Radio Backup," for instructions on using channel 8, KON-511, for notification.

1.4 By means of a single call on the Notification and Alert Net dedicated telephone, contact the following State/County agencies listed in Appendix A.

Duty Hours (8:00 a.m. to 5:00 p.m. Monday-Friday)

Maricopa County Sheriff's Office
Maricopa County Department of Civil Defense and Emergency Services
Arizona Department of Public Safety
Arizona Division of Emergency Services
Arizona Radiation Regulatory Agency.

Off-Duty Hours (5:00 p.m. to 8:00 a.m., Monday-Friday, all day Saturday, Sunday and Holidays)

Maricopa County Sheriff's Office
Department of Public Safety

1.5 In the event that an offsite government agency (or agencies) does not answer the NAN phone or NAN backup radio during a test, drill or actual emergency, the nuclear operator (or STSC Communicator) shall notify the agency via regular PBX telephone (numbers listed in Appendix A).

1.6 When contact is made, the caller shall identify himself and request that the individuals obtain a copy of the appropriate Emergency Message Form.

1.7 When each individial has obtained a copy, read the completed Emergency Message Form verbatim and request MCSO to read back verbatim. Perform warning point roll call.

1.8 Offer to repeat information and reiterate as necessary.

NOTE

To verify the group page activation monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

1.9 Notify additional personnel as listed in Appendix A as necessary and inform them of the situation. Provide the following message for both Group Paging Systems Notification/Callout:

"THIS IS PVNGS, UNIT ____, CLASSIFICATION TWO, PLEASE RESPOND APPROPRIATELY." (Repeat message once).

1.10 If an individual requests information not contained in the Emergency Message Form, make reasonable efforts to obtain and give the information only after all initial notifications have been made.

1.11 Contact the NRC via the Emergency Notification System (ENS) dedicated telephone within 60 minutes of declaring an emergency. If the ENS fails, use the commercial telephone or HPN phone as an alternate line.

1.12 When contact is made, the caller shall identify himself and read the completed Emergency Message Form verbatim (omit the Palo Verde Authenticator).

1.13 Offer to repeat information and reiterate as necessary.

2.0 Follow-up Emergency Message Form (Appendix D)

2.1 Fill in data required by Steps 1-3 of Appendix D, "Follow-up Emergency Message Form."

NOTE

If the emergency is non-radiological in nature, steps 4-9 may be deleted.

2.2 Obtain the Radiation Protection Monitor or the Radiological Assessment Coordinator (if EOF is activated) data required to complete Steps 4-9.

2.3 Obtain the Emergency Coordinator or the Technical Analysis Coordinator (if EOF is activated) data required to complete Steps 10-14.

2.4 Circle appropriate wording in Step 15.

2.5 Dispense information when asked by offsite Agencies (NRC or ARRA).

3.0 EMERGENCY TERMINATION MESSAGE FORM (APPENDIX E)

3.1 Fill in data required by steps 1-3 of Appendix E. "Emergency Termination Message Form."

3.2 Obtain approval from SS/EC/EOD.

3.3 Transmit termination per Appendix A.

NOTE

To verify the group page activation monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

3.4 When using the Group Paging Systems to announce event termination, use the following message:

"THIS IS PVNGS, UNIT ____, EMERGENCY TERMINATED. PLEASE CANCEL RESPONSE TO EMERGENCY."

NOTIFICATION ALERT NETWORK (NAN) RADIO BACKUP
Channel 8 - KON511

In case of failure of the NAN ringdown telephone, the NAN backup is Channel 8 on the PVNGS radio. FCC regulations require the Palo Verde Designator 'KON511' be used to precede and conclude all outgoing communications.

1. Take control of the radio channel by saying: "All stations this net," (Repeat) "All stations this net, this is K-O-N 5-1-1 Palo Verde. 5-1-1 Palo Verde to all 5-1-1 stations, stand by for Warning Point roll call."

2. Wait thirty seconds to allow the offsite agencies to get to their radios, then repeat the previous transmission.

NOTE

After 5 P.M. weekdays, all day Saturday, Sunday or on holidays, Maricopa County Sheriff's Office (MCSO) and Department of Public Safety (DPS) will be the only agencies responding.

3. Initiate roll call of the offsite government agencies, allowing stations on the net to respond.

   3.1 "5-1-1 Palo Verde to 5-1-1 Maricopa County Sheriff's Office. Do you copy?"
   Allow Response: "5-1-1 MCSO copies."

   3.2 "5-1-1 Palo Verde to 5-1-1 Maricopa County Department of Civil Defense & Emergency Services. Do you copy?" (MCDCD&ES)
   Allow response: "5-1-1 Civil Defense copies."

   3.3 "5-1-1 Palo Verde to 5-1-1 Department of Public Safety. Do you copy?"
   Allow response: "5-1-1 DPS copies."

   3.4 "5-1-1 Palo Verde to 5-1-1 Arizona Division of Emergency Services. Do you copy?"
   Allow response: "5-1-1 ADES (State EOC) copies."

   3.5 "5-1-1 Palo Verde to 5-1-1 Arizona Radiation Regulatory Agency. Do you copy?"
   Allow response: "5-1-1 ARRA copies."

4. Upon completion of roll call, transmit the notification message verbatum. Take acknowledgement roll call, allowing MCSO to read the message back in its entirety, and provide assistance or clarification, as needed.

5. Upon completion of the second roll call, announce: "K-O-N 5-1-1 Palo Verde off." This is the required FCC sign-off.

6. Continue notifications per Step 1.8 Appendix F.

PROTECTIVE ACTION RECOMMENDATIONS

Classification Category	Protective Actions Recommendations
Alert- any releases are expected to be limited to a small fraction of the EPA/PAG exposure levels at the site boundary unless further degradation of safety systems occur.	Inform the state and county authorities of the ALERT status/cause and recommend that the public be appraised of the situation and stay tuned to EBS/KTAR radio station.

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

POSITION FILLED BY:

(1) PVNGS Plant Manger
(2) Manager, Technical Support
(3) Shift Supervisor, Unaffected Unit

RESPONSIBILITY: The individual onsite with the responibility and authority to immediately and unilaterally initiate emergency actions, including providing notification and protective action recommendations to Governmental authorities responsible for implementing offsite emergency measures. Provide for the control and coordination of onsite emergency response.

NOTE

Refer to the following pages per appropriate facility activation.

Facility Activated	Appendix I Page
STSC	1 - 4
TSC	5 - 8
TSC/EOF	9 - 11

INITIAL RESPONSE

1. Receive notification from the Shift Supervisor and report to the Control Room of the affected unit.

2. Ensure plant wide public address announcement is made as per steps 4.3.1.4, 4.3.1.5 or 4.3.1.7, 4.3.1.8 of this procedure as appropriate.

3. Review plant status, initiating event, corrective actions and emergency classification with the Shift Supervisor per EPIP-02, "Emergency Classification."

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

4. Assume position of the onshift Emergency Coordinator.

5. Activate the Satellite STSC per EPIP-11, "Technical Support Center/Satellite TSC Activation."

6. Commence notification process per Appendix F or direct the STSC Communicator to do so.

   (1) Direct the Security Director to call in the PVNGS onsite and offsite Emergency Organization personnel.

7. Provide plant wide public address announcement when the STSC is activated.

8. Verify personnel resources are on standby in the OSC.

9. Reevaluate the emergency classification as conditions change per EPIP-02 "Emergency Classification," reclassify as necessary.

10. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

    (1) For a fire, dispatch the Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

    (2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

11. Determine any additional protective action recommendations to be provided to state and county response agencies per EPIP-15, "Protective Action Guidelines."

12. As appropriate, complete Follow-up Emergency Message Form.

13. Determine the need for offsite support and direct the STSC Communicator to call location(s) in EPIP-33, "Offsite Assitance" and arrange access with the Security Director per EPIP-24, "Security."

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

Personnel Assembly and Accountability
(If Assembly/Accountability Performed)

14. Within 30 minutes of the accountability signal receive a report on accountability in the protected area from the Security Director.

15. Be prepare to implement EPIP-21, "Search and Rescue" by providing necessary data to the OSC Coordinator.

16. Receive report on site area accountability.

Emergency Exposures and KI

17. Per EPIP-18, "Emergency Exposures Guidelines," and as necessary, authorize emergency exposures.

18. As necessary, authorize administration of KI per EPIP-26, "Potassium Iodide (KI) Administration" to emergency workers desiring to use it. Consult with the Radiation Protection Monitor.

TSC Activation and Transfer to Authority

19. When relieved by the onsite Emergency Coordinator, provide a briefing and transfer responsibilities.

OSC Activation

20. If a release is occuring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of primary OSC.

21. If uninhabitable, direct the OSC Coordinator to relocated staff and equipment/supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordator to relocate to a protected area (Control Room/ STSC, TSC or EOF).

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

Security

22. As necessary, implement EPIP-24, "Security" and order the Security Director to limit access to the station, contact the Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessry personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

23. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Actions

24. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

Assessment Actions

25. Ensure that the Radiation Proection Monitor is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions

26. Continue to evalute the need for providing any additional protective action recommendations to state and county agencies.

27. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation." (If assembly/accountability performed.)

Event Termination or Reduction

28. Contact PVNGS Compliance at [redacted] or beeper [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

9

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

INITIAL RESPONSE

1. Receive notification from the onshift Emergency Coordinator and report to TSC. Upon arrival, sign in on the TSC Staffing Board.

2. Receive a briefing from the onshift Emergency Coordinator and assume responsibilities.

3. Brief TSC staff and evalute adequacy of TSC activation.

4. Declare the TSC operational and inform the STSC, Control Rooms, OSC, EOF, ANPP Site Construction Office, Bechtel Emergency Control Center and PVNGS Security via a site wide public address announcement. This notification may be delegated to the Information Monitor in the TSC.

5. As necessary, continue with or commence notification process per Appendix F or direct STSC Communicator to do so.

6. Verify personnel resources are on standby in the OSC.

SUBSEQUENT RESPONSE

7. Reevaluate the emergency classifications conditions change per EPIP-02, "Emergency Classification," reclassify as necessary.

8. As necessary, direct implementaion of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

   (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

   (2) For pesonnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

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EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

9. Determine any additional protective action recommendations to be provided to state and county response agencies per EPIP-15, "Protective Action Guidelines."

10. As appropriate, complete Follow-up Emergency Message Form.

11. Determine the need for offsite support and direct a Communicator to call locations(s) in EPIP-33, "Offsite Assistance" and arrange access with the Security Director per EPIP-24, "Security."

Personnel Assembly and Accountability
(If Assembly/Accountability Performed)

12. Within 30 minutes of the accountability signal, receive a report on accountability in the protected area from the Security Director.

13. Be prepared to implement EPIP-21, "Search and Resue," by providing necessary data to the OSC Coordinator (via Emergency Maintenance Coordinator).

14. Receive report on site area accountability.

Emergency Exposures and KI

15. Per EPIP-18, "Emergency Exposure Guidelines" and as neccessary, authorize emergency exposures.

16. As necessary, authorize administration of KI per EPIP-26 to emergency workers desiring to use it. Consult with the Radiological Protection Coordinator.

OSC Activation

17. If a release is occuring, consult Appendix B of EPIP-12, "Operations Support Center Activation" to determine habitability of primary OSC.

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

18. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordator to relocate to a protected area (Control Room/ STSC, TSC or EOF).

EOF Activation

19. Per EPIP-13, "Emergency Operations Facility Activation," brief the Emergency Operations Director and transfer the responsibilities for notifications and protective action recommendations.

Security

20. As necessary, implement EPIP-24, "Security" and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

21. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Action

22. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

23. Ensure that the Radiological Protection Coordinator is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

Protective Actions

24. Continue to evaluate the need for providing any additional protective action recommendations.

25. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation." (If Assenbly/Accountability Performed.)

Recovery

26. After the EOF is activated consult with Emergency Operations Director concerning implementing EPIP-31, "Recovery."

Event Termination or Reduction

27. Contact PVNGS Compliance at ext. [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

EMERGENCY COORDINATOR RESPONSE
TSC AND EOF ACTIVATED

INTIAL RESPONSE

1. Receive notification from the onshift Emergency Coordinator and report to the TSC or Control Room of affected unit. Upon arrival at the TSC, sign in on the TSC Staffing Board.

2. Receive a briefing from the onshift Emergency Coordinator and assume responsibilities.

3. Brief TSC staff and evalute adequacy of TSC activation.

4. Declare the TSC operational and inform the STSC, Control Rooms, OSC, EOF, ANPP Site Construction Office, Bechtel Emergency Control Center and PVNGS Security via a site wide public address announcement. This notification may be delegated to the Information Monitor in the TSC.

5. Per EPIP-13, "Emergency Operations Facility Activation," brief the Emergency Operations Director and transfer the responsibilities for notifications and protective action recommendations.

6. Verify personnel resources are on standby in the OSC.

SUBSEQUENT RESPONSE

7. Reevaluate the emergency classifications conditions change per EPIP-02, reclassify as necessary.

8. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

   (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

   (2) For pesonnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

EMERGENCY COORDINATOR RESPONSE
TSC AND EOF ACTIVATED

9. Determine the need for offsite support and direct a Communicator to call locations(s) in EPIP-33, "Offsite Assistance" and arrange access with the Security Director per EPIP-24, "Security," and coordinate with the Administration and Logistics Coordinator at the EOF.

Personnel Assembly and Accountability
(If Assembly/Accountability Performed)

10. Within 30 minutes of the accountability signal, receive a report on accountability in the protected area from the Security Director.

11. Be prepared to implement EPIP-21, "Search and Rescue," by providing necessary data to the OSC Coordinator (via Emergency Maintenance Coordinator).

12. Receive report on site area accountability

Emergency Exposures and KI

13. Per EPIP-18, "Emergency Exposure Guidelines" and as neccessary, authorize emergency exposures.

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OSC Activation

15. If a release is occuring, consult EPIP-12, "Operations Support Center Activation" to determine habitability of primary OSC.

16. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordator to relocate to a protected area (Control Room/ STSC, TSC or EOF).

EMERGENCY COORDINATOR RESPONSE
TSC AND EOF ACTIVATED

Security

17. As necessary, implement EPIP-24, "Security" and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

18. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Action

19. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

Assessment Actions

20. Ensure that the Radiological Protection Coordinator is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions
(If Assembly/Accountability Performed)

21. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation."

Recovery

22. Consult with the Emergency Operations Director concerning implementing EPIP-31, "Recovery."

Event Termination or Reduction

23. Contact PVNGS Compliance at ext. [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

STSC COMMUNICATOR RESPONSE

POSITION FILLED BY:

Nuclear Operator from affected unit

RESPONSIBILITY: Initiate the notification process as directed by the onshift Emergency Coordinator. Ensure operability of communications equipment. Maintain communications logbook.

IMMEDIATE ACTIONS

STSC Activation

1. Report to the STSC upon notification.

Notification of ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

2. Complete the Initial Emergency Message Form as directed by the Onshift Emergency Coordinator or Shift Supervisor.

3. Initiate notification process per Appendix F as directed by the Emergency Coordinator (or Shift Supervisor in his absence).

4. Inform the Emergency Coordinator when initial notifications are complete.

5. Contact the Security Director and inform him to call in additional personnel if so directed by the Emergency Coordinator.

6. Prepare the Follow-up Emergency Message Form as directed by the Emergency Coordinator.

* 7. Provide follow-up information when requested by the State/County agencies.

Notification of ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

* 8. Maintain records of communications received or transmitted offsite.

Offsite Assistance

9. Contact required offsite assitance (EPIP-33, "Offsite Assitance", Appendix A) via telephone if directed by the Emergency Coordinator.

10. Record name and time on "Telephone Communication Log Sheet," (EPIP-33, Appendix B).

11. Transfer call to Emergency Coordinator for clarification, if necessary.

12. Inform the Emergency Coordinator of contact/lack of contact, scope of offsite assistance and estimated time of arrival.

ACTIVATION OF ONSITE EMERGENCY ORGANIZATION

13. Transfer continuous communications link with the NRC to the NRC Liaison - Operations in the TSC.

14. Review status of notifications and transfer responsibility for notifying State/County agencies and NRC to Government Liaison Engineer in the EOF.

15. Notify the Emergency Coordinator when responsibilities have been transferred to the Government Liaison Engineer.

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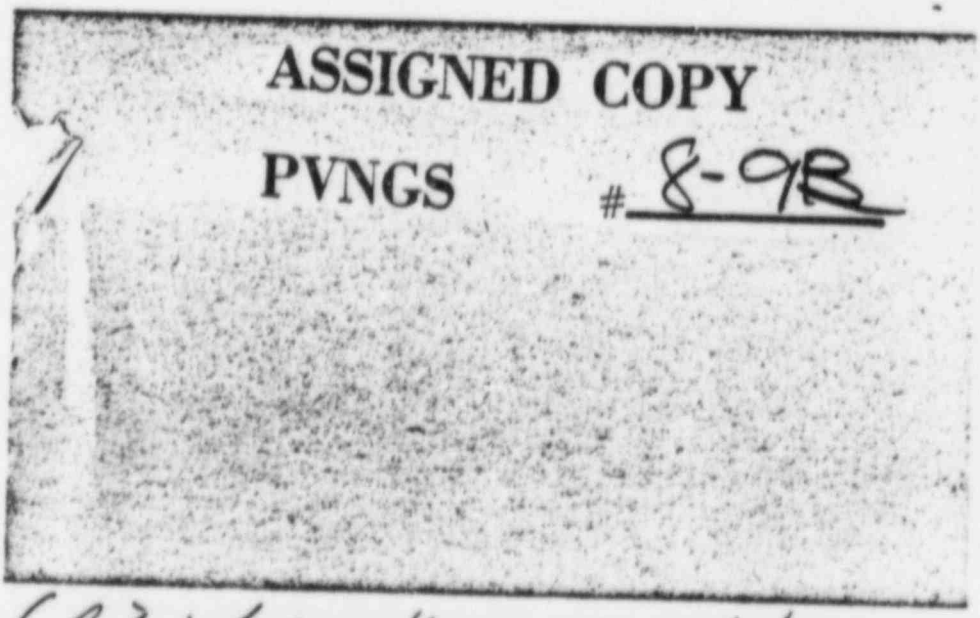
*Continuing Activity.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-05	
SITE AREA EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 1 of 39



DEPT. HEAD Harry F. Barton for Dennis Tous DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-14-86

DN-1600A/0787A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-05	
SITE AREA EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 2 of 39

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
5	3/4/85	all	Revised callouts and announcements. Added NAN Backup instruction Appendix. Added emergency coordinator checklists.
6	4/9/85	App. A & B	Revised to incorporate PCN #01 of Rev. 5. PCN corrected phone #s in App. A & B.
7	01.15.86	3, 7, 8, 9, 10, 11, 13, 14, 17, 18, 19, 20, 22, 24, 25 and 28	Added termination message form and instructions. Added note to provide guidance on notifications. Changed sequence of notifications in App. A. Updated references to all appendices. Capital announcements to make easier to identify.

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-05	
SITE AREA EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	- Page 3 of 39

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
8	09/10/85	4, 6, 9, 10, 11, 12, 13, 20, 21, 25, 26, 30, 33, 34, 37, 38, 39	Incorporated PCN #1 of Rev. 7. Added new phone #'s STSC Communicator checklist and specific instructions for announcements.
9		4, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39	Incorporated PCN #1 and 2 of Rev. 8. Deleted Time/Initials column in Appendices I and J.

TABLE OF CONTENTS

APPENDICES

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 This procedure provides a series of implementing actions to be taken upon declaration of a SITE AREA EMERGENCY.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-02, "Emergency Classification"

2.1.2 EPIP-11, "Technical Support Center/Satellite TSC Activation"

2.1.3 EPIP-12, "Operations Support Center Activation"

2.1.4 EPIP-13, "Emergency Operations Facility Activation"

2.1.5 EPIP-14A, "Release Rate Determination"

2.1.6 EPIP-14B, "Initial Dose Assessment"

2.1.7 EPIP-15, "Protective Action Guidelines"

2.1.8 EPIP-16, "Inplant Surveys and Sampling"

2.1.9 EPIP-17, "Onsite/Offsite Surveys and Sampling"

2.1.10 EPIP-18, "Emergency Exposure Guidelines"

2.1.11 EPIP-19, "Onsite Evacuation"

2.1.12 EPIP-20, "Personnel Assembly and Accountability"

2.1.13 EPIP-21, "Search and Rescue"

2.1.14 EPIP-22, "Personnel Injury"

2.1.15 EPIP-23, "Fire Fighting"

2.1.16 EPIP-24, "Security"

2.1.17 EPIP-25, "Reentry for Recovery Operations"

2.1.18 EPIP-26, "Potassium Iodide (KI) Administration"

2.1.19 EPIP-31, "Recovery"

CONTROLLED DOCUMENT

2.1.20 EPIP-33, "Offsite Assistance"

2.1.21 71AC-9ZZ01, "Event Related Reporting"

2.1.22 9N219.05.00, "Documentation/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.2.2 PVNGS Emergency Plan, Rev. 6

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change or more definitive information is obtained.

3.2 Notifications to state/county agencies per Appendix A, "Emergency Notification Call List-Emergency Coordinator/STSC Communicator" shall commence within 15 minutes of declaration of an emergency.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 In a SITE AREA EMERGENCY, substantial releases of radioactive material may occur. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels beyond the site boundary. Consideration of appropriate protective actions, based on actual or projected data, is warranted. All onsite and offsite emergency centers are activated. Onsite evacuation will be initiated if appropriate. The station shall provide updated radiological/meteorological information to offsite emergency management organizations. The SITE AREA EMERGENCY status shall be maintained until the event is terminated or reclassification takes place.

4.1.2 The Shift Supervisor or Emergency Coordinator shall be responsible for initiating and completing the implementing actions of this procedure.

4.2 Prerequisites

4.2.1 The emergency has been classified per EPIP-02, "Emergency Classification."

4.3 Instructions

4.3.1 The affected unit Shift Supervisor shall perform the following:

NOTE

Designated Unaffected Unit Shift Supervisor to assume the role of the Emergency Coordinator in the Onshift Emergency Organization are:

Affected Unit	Unaffected Unit Shift Supervisor
Unit 1	Unit 2
Unit 2	Unit 1
Unit 3	Unit 2
Entire Site	Unit 1

4.3.1.1 Notify the Shift Supervisor of the designated unaffected unit (or Shift Supervisor of an unaffected unit) to report to the Control Room of the affected unit and assume the duties of the Emergency Coordinator.

NOTE

Initial notifications shall be made from the satellite TSC by the Satellite TSC Communicator until activation of the EOF. At that time all subsequent initial and follow up notifications shall be made by the Government Liaison Engineer in the EOF.

NOTE

If the emergency situation is terminated before initial notifications are finished, complete the notifications per Appendix A. Then repeate Appendix A with the notification of termination. If the emergency is terminated before initial notifications can be started, provide both initiating and terminating messages in the same call.

NOTE

Protective Action recommendations (Appendix H) are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress.

4.3.1.2 Notify the Control Rooms of the unaffected units.

4.3.1.3 Direct the Satellite TSC Communicator (or Government Liaison Engineer) to fill out Appendix C, "Initial Emergency Message Form," in accordance with instructions provided in Appendix F.

4.3.1.4 Ensure the accountability signal is sounded for approximately one minute. 9

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4.3.1.5 Silence the signal and ensure the following announcement is made over the plant wide telephone page

"ATTENTION ALL PLANT PERSONNEL, AN EMERGENCY SITUATION CLASSIFIED AS A SITE AREA EMERGENCY EXISTS IN UNIT _____. ASSEMBLY AND ACCOUNTABILITY ARE NOW IN PROGRESS. ALL AFFECTED UNIT EMERGENCY RESPONSE PERSONNEL AND ALTERNATES REPORT TO YOUR EMERGENCY LOCATION. ALL OTHER PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY AREA." (Provide instructions on routes or areas to avoid as appropriate)

4.3.1.6 Ensure the announcement in step 4.3.1.5 is repeated over the Site Warning Siren/Public Address System.

4.3.1.7 Ensure the accountability signal is resounded and the announcement in steps 4.3.1.5 and 4.3.1.6 is repeated.

4.3.1.8 Ensure that actions of the appropriate recovery procedures have been implemented.

4.3.2 The Emergency Coordinator shall perform the following:

4.3.2.1 Ensure activation of the satellite TSC in accordance with EPIP-11, "Technical Support Center/Satellite TSC Activation."

4.3.2.2 Following accountability, and if conditions warrant, initiate EPIP-19, "Onsite Evacuation."

4.3.2.3 Implement additional Emergency Plan Implementing Procedures according to the situation that resulted in the emergency being classified as a SITE AREA EMERGENCY.

4.3.2.4 Direct the Security Director to call in Onsite and Offsite Emergency Organization personnel by utilizing the appropriate computer call-out listing.

4.3.2.5 Direct the STSC Communicator (or Government Liaison Engineer) to prepare Appendix D, "Follow-up Emergency Message Form" in accordance with instructions provided in Appendix F.

4.3.2.6 Determine the need for offsite assistance. If assistance is necessary, direct the STSC Communicator (onshift) or the Administrative and Logistics Coordinator to contact the required agency per EPIP-33, "Offsite Assistance."

4.3.2.7 Reevaluate the emergency classification and perform licensee actions as conditions change by implementing procedure EPIP-02.

4.3.2.8 When the situation warrants downgrading/upgrading the SITE AREA EMERGENCY, proceed to appropriate implementing and notification procedures and direct the Shift Supervisor to announce the reclassification over the public address system and inform the other Control Rooms.

4.3.2.9 Provide overall direction and control of the ONSHIFT emergency response as per Appendix I - Emergency Coordinator Response. 9

4.3.3 PVNGS Security, after being notified by the Emergency Coordinator or STSC Communicator that a Site Area Emergency is in progress or has occurred, or has been terminated shall complete Appendix B, "Emergency Notification Call List - PVNGS Security," and notify these individuals or departments of the situation.

4.3.4 Operations Support Center (OSC) Activation

4.3.4.1 The OSC Coordinator shall implement EPIP-12, "Operations Support Center Activation."

4.3.5 Emergency Operations Facility (EOF) Activation

4.3.5.1 The Emergency Operations Director shall implement EPIP-13, "Emergency Operations Facility Activation."

4.3.6 Emergency Situation Terminated

4.3.6.1 The Shift Supervisor (or Emergency Coordinator) shall ensure the "All Clear" signal is sounded for approximately (1) minute and that the following announcement is made over the plant wide telephone page

"ATTENTION ALL PERSONNEL. THE EMERGENCY SITUATION DECLARED IN UNIT _____ HAS NOW BEEN TERMINATED". (Provide special instructions as necessary)

4.3.6.2 Ensure the announcement in step 4.3.6.1 is repeated over the Site Warning Siren/Public Address System. 9

4.3.6.3 Ensure steps 4.3.6.1 and 4.3.6.2 are repeated once.

4.3.6.4 Direct the STSC Communicator (or Government Liaison Engineer) to fill out Appendix E, "Emergency Termination Message Form," in accordance with instructions provided in Appendix F.

4.3.6.5 Direct the STSC Communicator (or Government Liaison Engineer) to transmit the termination per Appendix A.

4.3.6.6 At closeout or reduction of the SITE AREA EMERGENCY classification, the S.S./E.C. shall notify PVNGS Compliance at [redacted] or beeper no. [redacted] to provide a written summary to offsite authorities within eight (8) hours. The S.S./E.C. shall provide copies of shift logs, control room logs, etc., as requested by Compliance for preparation of the report.

4.3.7 Record Retention

4.3.7.1 Appendices A, B, C, D, E, ~~I and J~~ K&M shall be turned over to the Emergency Planning Dept., mail station 6010, to ensure they are forwarded to DDC for proper storage in accordance with 9N219.05.00, "Document/Record Turnover Control." 9

9

EMERGENCY NOTIFICATION CALL LIST

EMERGENCY COORDINATOR/SISC COMMUNICATOR

AGENCY OR INDIVIDUAL	PRIMARY LINK	ALTERNATE LINK	ALTERNATE LINK	INITIAL DATE/TIME	INITIAL CALLER	TERMINATION DATE/TIME	TERMINATION CALLER
Arizona Department of Public Safety	NAN	Radio System Channel 8 Frequency		/		/	
Maricopa County Sheriff's Office	NAN	Radio System Channel 8 Frequency		/		/	
Arizona Radiation Regulatory Agency	NAN	Radio System Channel 8 Frequency		/		/	
Arizona Division of Emergency Services	NAN	Radio System Channel 8 Frequency		/		/	
Maricopa County Department of Civil Defense and Emergency Services	NAN	Radio System Channel 8 Frequency		/		/	
PVNGS Security				/		/	
Group Paging System #1				/		/	
Group Paging System #2				/		/	
PVNGS Plant Manager				/		/	
Operations Manager				/		/	
Manager*				/		/	
Maintenance Manager *				/		/	
Plant Services Manager*				/		/	
Dispatcher (SOC)				/		/	
NRC Headquarters				/		/	

* Call these personnel in sequence until one of them is reached only if unable to contact PVNGS Plant Manager or Operations Manager.

9

EMERGENCY NOTIFICATION CALL LIST - PVNGS SECURITY

AGENCY OR INDIVIDUAL	PRIMARY LINE	ALTERNATE LINE	INITIAL DATE/TIME	INITIAL CALLER	TERMINATION DATE/TIME	TERMINATION CALLER
Corporate Security			/		/	
Site Construction Security Office			/		/	
Nuclear Administration			/		/	
ANPP Communications*			/		/	
ANPP Site Construction Office*			/		/	
Bechtel Emergency Control Center			/		/	

*Available during working hours only.

PV216-00DA (8/82)

INITIAL EMERGENCY MESSAGE FORM
NOTIFICATION OF UNUSUAL EVENT,
ALERT, SITE AREA EMERGENCY, OR GENERAL EMERGENCY

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
(circle applicable classification)

declared at _____ (time) - _____ (date) - Wind is from _____ degrees - At _____ (speed) mph.

PALO VERDE AUTHENTICATOR _____
(authenticator letters)

2. This is _____ (name/title), at the Palo Verde Nuclear Generating Station Unit _____. 9

3. (Circle One)

(a) There is NO, repeat NO, radioactive release taking place and no special protective actions are recommended at this time.

OR

(b) There is NO, repeat NO, radioactive release in excess of allowable operating limits and NO protective action recommendations at this time.

OR

(c) There is NO, repeat NO, radioactive release taking place at this time. However, the following protective actions are recommended.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(d) A radioactive release IS, repeat IS, taking place. We recommend that people in affected sectors remain indoors with windows and doors closed.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(e) A radioactive release IS, repeat IS, taking place. We recommend that evacuation of affected sectors be considered.

Sectors	Distance (Miles)
_____	_____
_____	_____

4. THIS IS (IS NOT) A DRILL!! (Circle One)

Approved _____
(SS/EC/EOD) Date Time

FOLLOW-UP EMERGENCY MESSAGE FORM

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS A PALO VERDE NUCLEAR GENERATING STATION follow-up information message concerning the (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
   (circle applicable classification)

   declared at _____ - _____
   (time) (date)

2. This is _____, at Palo Verde Nuclear Generating Station 9
   (name/title)
   Unit _____.

3. Brief description of event _____

   _____

   _____

   _____

   _____

   _____

4. Meteorological Data

   a. Wind direction from _____ (degrees) - at _____ miles per hour
   (direction) (speed)

   from _____ to _____
   (sector) (sector)

   b. Stability Class: A B C D E F G
   (Circle One)

   c. Precipitation Yes No
   (Circle One)

5. Radiological Data

   a. Radioactivity (check one)

   ( ) Has been released
   ( ) Has not been released

5. b. Release Time _____

   c. Reactor Trip Time _____

   d. Location/Source of Release _____

6. Current Release Rates

   a. I-131 Equivalent _____ Ci/second
   b. Noble Gas _____ Ci/second
   c. Particulates _____ Ci/second

7. Two-hour plume centerline projected dose at:

Distance	Sector	Whole Body Dose (REM)	Child Thyroid Dose Commitment (REM)
Site Boundary			
2 miles			
6 miles			
10 miles			

8. Plume arrival time offsite:

   _____ 2 mi
   _____ 5 mi
   _____ 10 mi
   _____ Ruth Fisher School
   _____ Arlington School

9. Estimated duration of release _____ minutes

10. The Following Emergency Measures Including Protective Actions are Recommended:

_____

_____

_____

11. The Following Emergency Response Actions are Underway:

_____

_____

_____

12. We Request the Following Onsite Support and Assistance from Offsite Sources:

_____

_____

_____

13. Our Prognosis of the Emergency is that Conditions:

_____ Are Under Control
_____ Can be Expected to Terminate Within _____ hours.
_____ Are Worsening

14. Other Information:

a) Power Prior to Event (%) _____
b) Current Power or Mode _____
c) Mode of Operation Till Correction _____
d) Estimated Time to Restart _____

9

15. THIS IS (IS NOT) A DRILL!! (Circle One)

EMERGENCY TERMINATION MESSAGE FORM

1. Verbatim text of message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION. THE (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY) (circle approprite classification) DECLARED AT _____ (Time) - _____ (Date) HAS BEEN TERMINATED AT

   _____ (Time) - _____ (Date).

2. This is _____ (Name) _____ (Date), at Palo Verde Nuclear Generating Station Unit _____. 9

3. PALO VERDE AUTHENTICATOR _____ (Authenticator Letters).

Approved: _____ (SS/EC/EOD) Date/Time

INSTRUCTIONS FOR COMPLETING APPENDIX C, D OR E

1.0 INITIAL EMERGENCY MESSAGE FORM (APPENDIX C)

1.1 Fill in data required by steps 1 and 2 of Appendix C, "Initial Emergency Message Form." Obtain authenticator from the confidential envelope marked on the outside with the appropriate month and drill sequence number (if it is a drill).

1.2 Obtain from the Radiation Protection Monitor (onshift) or Radiological Assessment Coordinator (if EOF is activated) data required to complete step 3 of Appendix C.

1.3 Circle appropriate wording of step 4 of Appendix C.

NOTE

When the NAN ring button is pushed and it appears that all the receiving stations are on line, or, the ring has stopped, the PVNGS originating station shall initiate a roll call in the order listed below. (Consider the time of day)

NOTE

If the NAN dedicated telephone fails, refer to Appendix G, "Notification Alert Network (NAN) Radio Backup," for instructions on using channel 8, KON-511, for notifications.

1.4 By means of a single call on the Notification and Alert Net dedicated telephone, contact the following State/County agencies listed in Appendix A.

Duty Hours (8:00 a.m. to 5:00 p.m. Monday-Friday)

Maricopa County Sheriff's Office
Maricopa County Department of Civil Defense and Emergency Services
Arizona Department of Public Safety
Arizona Division of Emergency Services
Arizona Radiation Regulatory Agency

Off-Duty Hours (5:00 p.m. to 8:00 a.m., Monday-Friday, all day Saturday, Sunday and Holidays)

Maricopa County Sheriff's Office
Department of Public Safety

1.5 In the event that an offsite government agency (or agencies) does not answer the NAN phone or NAN backup radio during a test, drill, or actual emergency, the nuclear operator (or STSC Communicator) shall notify the agency via regular PBX telephone (numbers listed in App. A).

1.6 When contact is made, the caller shall identify himself and request that the individuals obtain a copy of the Appropriate Emergency Message Form.

1.7 When each individual has obtained a copy, read the completed Emergency Message Form verbatim and request MCSO to read back verbatim. Perform warning point roll call.

1.8 Offer to repeat information and reiterate as necessary.

NOTE

To verify the group page activation monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

1.9 Notify additional personnel as listed in Appendix A as necessary and inform them of the situation. Provide the following message for both Group Paging Systems Notification and Callout:

"THIS IS PVNGS, UNIT __, CLASSIFICATION TWO, PLEASE RESPOND APPROPRIATELY." (Repeat message once)

1.10 If an individual requests information not contained in the Emergency Message Form, make reasonable efforts to obtain and give the information only after all initial notification have been made.

1.11 Contact the NRC via the Emergency Notification System (ENS) dedicated telephone within 60 minutes of declaring an emergency. If the ENS fails, use commercial phone or HPN phone as an alternate line.

1.12 When contact is made, the caller shall identify himself and read the completed Emergency Message Form verbatim (omit the Palo Verde Authenticator).

1.13 Offer to repeat information and reiterate as necessary.

2.0 FOLLOW-UP EMERGENCY MESSAGE FORM (APPENDIX D)

2.1 Fill in data required by steps 1-3 of Appendix D, "Follow-up Emergency Message Form."

NOTE

If the emergency is non-radiological in nature, steps 4-9 may be deleted.

2.2 Obtain from the Radiation Protection Monitor or the Radiological Assessment Coordinator (if EOF is activated) data required to complete steps 4-9.

2.3 Obtain from the Emergency Coordinator or the Technical Analysis Coordinator (if EOF is activated) data required to complete steps 10-14.

2.4 Circle appropriate wording in step 15.

2.5 Dispense information when asked by offsite agencies (NRC or ARRA).

3.0 EMERGENCY TERMINATION MESSAGE FORM (APPENDIX E)

3.1 Fill in data required by steps 1-3 of Appendix E, "Emergency Termination Message Form."

3.2 Obtain approval from SS/EC/EOD.

3.3 Transmit termination per Appendix A.

NOTE

To verify the group page activation monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

3.4 When using the Group Paging Systems to announce event termination, use the following message:

"THIS IS PVNGS UNIT ____, EMERGENCY TERMINATED. PLEASE CANCEL RESPONSE TO EMERGENCY."

NOTIFICATION ALERT NETWORK (NAN) RADIO BACKUP
CHANNEL 8 - KON511

In case of failure of the NAN ringdown telephone, the NAN backup is Channel 8 on the PVNGS radio. FCC regulations require the Palo Verde designator 'KON511' be used to precede and conclude all outgoing communications.

1. Take control of the radio channel by saying: "All stations this net," (Repeat) "All stations this net, this is K-O-N 5-1-1 Palo Verde. 5-1-1 Palo Verde to all 5-1-1 stations, stand by for warning point roll call."

2. Wait 30 seconds to allow the offsite agencies to get to their radios, then repeat the previous transmission.

NOTE

After 5 P.M. weekdays, all day Saturday, Sunday or holidays, Maricopa County Sheriff's Office (MCSO) and Department of Public Safety (DPS) will be the only agencies responding.

3. Initiate roll call of the offsite government agencies, allowing stations on the net to respond.

   3.1 "5-1-1 Palo Verde to 5-1-1 Maricopa County Sheriff's Office. Do you copy?"
   Allow response: "5-1-1 MCSO copies."

   3.2 "5-1-1 Palo Verde to 5-1-1 Maricopa County Department of Civil Defense & Emergency Services. Do you copy?" (MCDCD&ES)
   Allow response: "5-1-1 Civil Defense copies."

   3.3 "5-1-1 Palo Verde to 5-1-1 Department of public Safety. Do you copy?"
   Allow response: "5-1-1 DPS copies."

   3.4 "5-1-1 Palo Verde to 5-1-1 Arizona Division of Emergency Services. Do you copy?"
   Allow response: "5-1-1 ADES (State EOC) copies."

3.5 "5-1-1 Palo Verde to 5-1-1 Arizona Radiation Regulatory Agency. Do you copy?"
Allow Response: "5-1-1 ARRA copies."

4. Upon completion of roll call, transmit the notification message verbatim. Take an acknowledgement roll call, allowing MCSO to read the message back in its entirety, and provide assistance or clarification, as needed.

6. Upon completion of the second roll call, announce: "K-O-N 5-1-1 Palo Verde off." This is the required FCC sign-off.

7. Continue notification per Step 1.8 Appendix F.

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-05	APPENDIX H Page 1 of 1
SITE AREA EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 24 of 39

PROTECTIVE ACTION RECOMMENDATIONS

Classification Category	Protective Actions Recommendations
Site Area Emergency- any releases are not expected to exceed EPA/PAG exposures levels beyond the site boundary unless further degradation of safety systems occur.	Inform state and county authorities of Site Area Emergency status/cause and recommend seeking shelter within a 2 mile radius of the plant and within 5 miles in affected sectors as warranted based on plant/containment conditions and projected and/or actual releases.

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

POSITION FILLED BY:

1) PVNGS Plant Manager
2) Manager, Technical Support
3) Shift Supervisor

RESPONSIBILITY: The individual onsite with the responsibility and authority to immediately and unilaterally initiate emergency actions, including providing notification and protective action recommendations to Governmental authorities responsible for implementing offsite emergency measures. Provide for the control and coordination of onsite emergency response.

NOTE

Refer to the following pages per appropriate facility activation

Facility Activated	Appendix I Page
STSC	1-4
TSC	5-8
TSC/EOF	9-11

INITIAL RESPONSE

1. Receive notification from the Shift Supervisor and report to the Control Room of affected unit.
2. Ensure plant wide public address announcement is made as per step 4.3.1.5 and 4.3.1.6 of this procedure.
3. Review plant status, initiating event, corrective actions and emergency classification with the Shift Supervisor.
4. Assume the position of onshift Emergency Coordinator.

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

INITIAL RESPONSE

5. Activate the Satellite TSC per EPIP-11, "Technical Support Center/Satellite TSC Activation."

6. Commence notification process per Appendix F or the direct STSC Communicator to do so.

   (1) Direct the Security Director to call in the PVNGS onsite and offsite Emergency Organization Personnel.

7. Provide plant wide public address announcement when the STSC is activated.

8. Verify personnel resources are on standby in the OSC.

9. Reevalute the emergency classification as conditions change per EPIP-02, reclassify as necessary.

10. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

    (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

    (2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

11. Determine any additional protective action recommendations to be provided to state and county response agencies per EPIP-15, "Protective Action Guidelines."

12. As appropriate, complete Follow-up Emergency Message Form.

13. Determine the need for offsite support and direct the STSC Communicator to call location(s) in EPIP-33, "Offsite Assistance" and arrange access with the Security Director per EPIP-24, "Security."

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

SUBSEQUENT RESPONSE

Personnel Assembly and Accountability

14. Within 30 minutes of the accountability signal, receive a report on accountability in the protected area from the Security Director.

15. Receive a report on site accountability later.

16. Be prepared to implement EPIP-21, "Search and Rescue", by providing necessary data to the OSC Coordinator.

Emergency Exposures and KI

17. Per EPIP-18, "Emergency Exposure Guidelines," and as necessary, authorize emergency exposures.

18. As necessary, authorize administration of KI per EPIP-26, "Potassium Iodine (KI) Administration" to emergency workers desiring to use it. Consult with the Radiation Protection Monitor.

TSC Activation and Transfer of Authority

19. When relieved by onsite Emergency Coordinator, provide a briefing and transfer responsibilities.

OSC Activation

20. If a release is occurring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of the primary OSC.

21. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (Service Building). If this is also unihabitable, direct the OSC Coordinator to relocate to a protected area (Control Room/STSC, TSC or EOF).

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

Security

22. As necessary, implement EPIP-24, "Security," and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

23. Ensure the Security Director is appraised of offsite assistance request to arrange access.

Corrective Actions

24. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

Assessment Actions

25. Ensure that the Radiation Protection Monitor is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assesment," EPIP-16, "Inplant Surveys and Sampling", and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions

26. Continue to evaluate the need for providing Protective Action recommendations.

27. Determine need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation."

28. Establish evacuation order, offsite reassembly area, evacuation route and inform the Security Director.

29. Order evacuation signal when the Security Director reports that preparations are complete.

9

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

INITIAL RESPONSE

1. Receive notification from the onshift Emergency Coordinator and report to the TSC. Upon arrival, sign in on the TSC staffing Board.

2. Receive a briefing from the onshift Emergency Coordinato and assume responsibilities.

3. Brief TSC and staff and evaluate adequacy of TSC activation.

4. Declare the TSC operational and inform the STSC, Control Rooms, OSC, EOF, ANPP Site Construction Office, Bechtel Emergency Control Center and PVNGS Security via site wide P.A. announcement. This notification may be delegated to the Information Monitor in the TSC.

5. As necessary, continue with or commence notification process per Appendix F or direct the STSC Communicator to do so.

6. Verify personnel resources in standby in the OSC.

SUBSEQUENT RESPONSE

7. Reevaluate the emergency classification as conditions change per EPIP-02 "Emergency Classification," reclassify as necessary.

8. As necessary, direcxt implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

   (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required)

   (2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

9

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

9. Determine additional protective action recommendations to be provided to state and county response agencies per EPIP-15, "Protective Action Guidelines."

10. As appropriate, complete Follow-up Emergency Message Form.

11. Determine the need for offsite support and direct a Communicator to call location(s) in EPIP-33, "Offsite Assistance," arrange access with the Security Director per EPIP-24, "Security."

Personnel Assembly and Accountability

12. Within 30 minutes of the acccountability signal, receive a report on accountability in the protected area from the Security Director.

13. Receive a report on site accountability later.

14. Be prepared to implement EPIP-21, "Search and Rescue," by providing necessary data to the OSC Coordinator (via Emergency Maintenance Coordinator).

Emergency Exposures and KI

15. Per EPIP-18, "Emergency Exposure Guidelines," and as necessary, authorize emergency exposures.

16. As necessary, authorize administration of KI per EPIP-26 to emergency workers desiring to use it. Consult with the Radiological Protection Coordinator.

OSC Activation

17. If a release is occurring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of the primary OSC.

18. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordinator to relocate to protected area (control room/STSC, TSC or EOF).

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SITE AREA EMERGENCY RESPONSE
TSC ACTIVATED

EOF Activation

19. Per EPIP-13, "Emergency Operations Facility Activation," brief the Emergency Operations Director and transfer the responsibilities for notifications and protective action recommendations.

Security

20. As necessary, implement EPIP-24, "Security," and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Acces List and/or not having access to the protected area via card-key system.

21. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Actions

22. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

Assessment Actions

23. Ensure that the Radiological Protection Coordinator is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling," EPIP-17, "Onsite/ Offsite Surveys and Sampling."

Protective Actions

24. Continue to evaluate the need for providing any addition protective action recommendations.

25. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation."

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Event Termination or Reduction

30. Contact PVNGS Compliance at ext. [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

SITE AREA EMERGENCY RESPONSE
TSC ACTIVATED

26. Establish evacuation order, offsite reassembly area, evacuation route and inform the Security Director.

27. Order evacuation signal when the Security Director reports that preparations are complete.

Recovery

28. After the EOF is activated, consult with the Emergency Operations director concerning implementing EPIP-31, "Recovery."

Event Termination or Reduction

29. Contact PVNGS Compliance at ext. [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

9

EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

INITIAL RESPONSE

1. Receive notification from the onshift Emergency Coordinator and report to TSC. Upon arrival, sign in on the TSC Staffing Board.

2. Receive a briefing from the onshift Emergency Coordinator and assume responsibilities.

3. Brief TSC staff and evaluate adequacy of TSC activation.

4. Declare the TSC operational and inform the STSC, Control Rooms, OSC, EOF, ANPP Site Construction Office, Bechtel Emergency Control Center and PVNGS Security via site wide P.A. announcement. This notification may be delegated to the Information Monitor in the TIC.

5. Per EPIP-13, "Emergency Operations Facility Activation," brief the Emergency Operations Director and transfer the responsibilities for notifications and protective action recommendations.

6. Verify personnel resources are on standby in the OSC.

SUBSEQUENT RESPONSE

7. Reevaluate the emergency as conditions change per EPIP-02 "Emergency Classification," reclassify as necessary.

8. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

   (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

   (2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

CONTROLLED DOCUMENT

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EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

9. Determine the need for offsite support and direct the STSC Communicator to call location(s) in EPIP-33, "Offsite Assistance" and arrange access with the Security Director per EPIP-24, "Security," and coordinate with the Administrative and Logistics Coordinator at the EOF.

Personnel Assembly and Accountability

10. Within 30 minutes of the accountability signal, receive a report on accountability in the protected area from the Security Director.

11. Receive a report on site accountability later.

12. Be prepared to implement EPIP-21, "Search and Rescue," by providing necessary data to the OSC Coordinator (via Emergency Maintenance Coordinator).

Emergency Exposures and KI

13. Per EPIP-18, "Emergency Exposure Guidelines," and as necessary, authorize emergency exposures.

14. As necessary, authorize administration of KI per EPIP-26 to emergency workers desiring to use it. Consult with the Radiological Protection Coordinator.

OSC Activation

15. If a release is occurring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of the primary OSC.

16. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordinator to relocate to a protected area (Control Room/STSC, TSC or EOF).

EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

Security

17. As necessary, implement EPIP-24, "Security," and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access list and/or not having access to the protected area via card-key system.

18. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Actions

19. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

Assessment Actions

20. Ensure that the Radiological Protection Coordinator is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose assessment," EPIP- 16 ,"Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions

21. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Eavcuation."

22. Establish evacuation order, offsite reassembly area, evacuation route and inform the Security Director.

23. Order evacuation signal when the Security Director reports that preparations are complete.

Recovery

24. Consult with the Emergency Operations Director concerning implementing EPIP-21, "Recovery."

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-05	APPENDIX I Page 13 of 13
SITE AREA EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 37 of 39

9

Event Termination or Reduction

25. Contact PVNGS Compliance at ext. [redacted] or beeper [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

9

STSC COMMUNICATOR RESPONSE

POSITION FILLED BY:

Nuclear Operator from affected unit

RESPONSIBILITY: Initiate the notification process as directed by the onshift Emergency Coordinator. Ensure operability of communications equipment. Maintain communications logbook.

IMMEDIATE ACTIONS

STSC Activation

1. Report to the STSC upon notification.

Notification of ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

2. Complete the Initial Emergency Message Form as directed by the Onshift Emergency Coordinator or Shift Supervisor.

3. Initiate notification process as directed by the Emergency Coordinator (or Shift Supervisor in his absence).

4. Inform the Emergency Coordinator when initial notifications are complete.

5. Contact the Security Director and inform him to call in additional personnel if so directed by the Emergency Coordinator.

6. Prepare the Follow-up Emergency Message Form as directed by the Emergency Coordinator.

*7. Provide follow-up information when requested by the State/County agencies.

Notification of ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

*8. Maintain records of communications received or transmitted offsite.

Offsite Assistance

9. Contact required offsite assistance (EPIP-33, "Offsite Assistance," Appendix A) via telephone if directed by the Emergency Coordinator.

10. Record name and time on "Telephone Communication Log Sheet." (EPIP-33, Appendix B)

11. Transfer call to Emergency Coordinator for clarification, if necessary.

12. Inform the Emergency Coordinator of contact/lack of contact, scope of offsite assistance and estimated time of arrival.

ACTIVATION OF ONSITE EMERGENCY ORGANIZATION

13. Transfer continuous communications link with the NRC to the NRC Liaison - Operations in the TSC.

14. Review status of notifications and transfer responsibility for notifying State/County agencies and NRC to Government Liaison Engineer in the EOF.

15. Notify the Emergency Coordinator when responsibilities have been transferred to the Government Liaison Engineer.

---

* Continuing Activity

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-06	
GENERAL EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 1 of 39

ASSIGNED COPY
PVNGS #8-9B

DEPT. HEAD Harry F. Bieling for Dennis Yocus DATE 12/4/85

PRB/PRG/TRRG REVIEW C.A. Zummau DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1601A/0787A

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
5	2-14-85	All	Total Revision: Revises procedures and appendices. Included Emergency Coord. checklist.
6	05-01-85	App. A & B	Revised to incorporate PCN #01 of Rev. 5. PCN corrected phone #'s in App. A & B.
7	06-17-85	3, 6, 7, 8, 9, 10, 11, 13, 14, 17, 18, 19, 20, 22, 25 & 29	Added termination message form and instructions. Added event description to follow-up form. Added note to provide guidance on notifications. Charged seq. of notifications in App. A. Capitalized announcement to make easy to identify. Updated all references to appendices.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-06	
GENERAL EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 3 of 39

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
8	09-10-85	4,6,8,9,10	Incorporated PCN #1 of
		11,12,13,20,	Rev. 7, added new phone #'s,
		21,26,27,29	& STSC Communication Check-
		30,33,34,37,	List, plus detailed instruc-
		38,39	tions for announcements.
9	01/15/86	4,8,9,10,12,11,	Incorporated PCN #1 and 2 of
		13,14,15,17,	Rev. 8, Deleted Time/
		18,24,26,27,	Initials column in
		28,29,30,31,	Appendices I and J.
		32,33,34,35,	
		36,37,38,39	

TABLE OF CONTENTS

APPENDICES

9

1.0 OBJECTIVE

1.1 This procedure provides a series of implementing actions to be taken upon declaration of a GENERAL EMERGENCY.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-02, "Emergency Classification"

2.1.2 EPIP-11, "Technical Support Center/Satellite TSC Activation"

2.1.3 EPIP-12, "Operations Support Center Activation"

2.1.4 EPIP-13, "Emergency Operations Facility Activation"

2.1.5 EPIP-14A, "Release Rate Determination"

2.1.6 EPIP-14B, "Initial Dose Assessment"

2.1.7 EPIP-15, "Protective Action Guidelines"

2.1.8 EPIP-16, "Inplant Surveys and Sampling"

2.1.9 EPIP-17, "Onsite/Offsite Surveys and Sampling"

2.1.10 EPIP-18, "Emergency Exposure Guidelines"

2.1.11 EPIP-19, "Onsite Evacuation"

2.1.12 EPIP-20, "Personnel Assembly and Accountability"

2.1.13 EPIP-21, "Search and Rescue"

2.1.14 EPIP-22, "Personnel Injury"

2.1.15 EPIP-23, "Fire Fighting"

2.1.16 EPIP-24, "Security"

2.1.17 EPIP-25, "Reentry for Recovery Operations"

2.1.18 EPIP-26, "Potassium Iodide (KI) Administration"

CONTROLLED DOCUMENT

2.1.19 EPIP-31, "Recovery"

2.1.20 EPIP-33, "Offsite Assistance"

2.1.21 71AC-9ZZ01, "Event Related Reporting"

2.1.22 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

2.2.2 PVNGS Emergency Plan, Rev. 6

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change or more definitive information is obtained.

3.2 Notifications to State/County agencies per Appendix A, "Emergency Notification Call List - Emergency Coordinator/STSC Communicator" shall commence within 15 minutes of declaration of an emergency.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination

4.1.1 In a GENERAL EMERGENCY, events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Radioactive releases which may occur can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area. There is prompt notification of NRC and appropriate state and county authorities of the General Emergency status.

4.1.2 Accordingly, prompt consideration of appropriate protective actions, based on actual or projected data, is warranted. Consideration of predetermined protective action recommendations (in the event of potential loss of fission product barriers) may also be warranted. Onsite and offsite emergency centers are activated. Onsite evacuation shall be initiated if appropriate. The station shall provide updated radiological/meteorological information to offsite emergency management organizations as necessary. The GENERAL EMERGENCY status shall be maintained until the event is terminated or reclassification takes place.

4.1.3 The Shift Supervisor or the Emergency Coordinator shall be responsible for initiating and completing the implementing actions of this procedure.

4.2 Prerequisites

4.2.1 The emergency has been classified per EPIP-02, "Emergency Classification."

4.3 Instructions

4.3.1 The affected unit Shift Supervisor shall perform the following:

NOTE

Designated Unaffected Unit Shift Supervisor to assume the role of the Emergency Coordinator in the Onshift Emergency Organization are:

Affected Unit	Unaffected Unit Shift Supervisor
Unit 1	Unit 2
Unit 2	Unit 1
Unit 3	Unit 2
Entire Site	Unit 1

4.3.1.1 Notify the Shift Supervisor of the designated unaffected unit (or Shift Supervisor of an unaffected unit) to report to the Control Room of the affected unit and assume the duties of the Emergency Coordinator.

4.3.1.2 Notify the Control Rooms of the unaffected units.

NOTE

Initial notifications shall be made from the Satellite TSC by the Satellite TSC Communicator until activation of the EOF. At that time all subsequent initial and follow up notifications shall be made by the Government Liaison Engineer in the EOF.

NOTE

If the emergency situation is terminated before initial notifications are finished, complete the notifications per Appendix A. Then repeat Appendix A with the notification of termination. If the emergency is terminated before initial notifications can be started, provide both initiating and terminating messages in the same call.

NOTE

Protective action recommendations (Appendix H) are based on plant and containment conditions and these recommendations are made to offsite officials even when no release is in progress. For a General Emergency, as a minimum, recommend shelter within a 2 mile radius and out to 5 miles within potentially affected sectors.

4.3.1.3 Direct the Satellite TSC Communicator (or Government Liaison Engineer) to fill out Appendix C, "Initial Emergency Message Form," in accordance with instructions provided in Appendix F.

4.3.1.4 Ensure the accountability signal is sounded for approximately one minute.

4.3.1.5 Silence the signal and ensure the following announcement is made over the plant wide telephone page [redacted]

"ATTENTION ALL PLANT PERSONNEL, AN EMERGENCY SITUATION CLASSIFIED AS A GENERAL EMERGENCY EXISTS IN UNIT _____. ASSEMBLY AND ACCOUNTABILITY ARE NOW IN PROGRESS. ALL AFFECTED UNIT EMERGENCY RESPONSE PERSONNEL AND ALTERNATES REPORT TO YOUR EMERGENCY LOCATION. ALL OTHER PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY AREA." (Provide instructions on routes or areas to avoid as appropriate).

4.3.1.6 Ensure the announcement in Step 4.3.1.5 is repeated over the Site Warning Siren/Public Address System.

4.3.1.7 Ensure the accountability signal is resounded and the announcement in Steps 4.3.1.5 and 4.3.1.6 is repeated.

4.3.1.8 Ensure that actions of the appropriate recovery or casualty procedures have been implemented.

4.3.2 The Emergency Coordinator shall perform the following:

4.3.2.1 Ensure activation of the satellite TSC in accordance with EPIP-11, "Technical Support Center/Satellite TSC Activation."

4.3.2.2 Following accountability, and if conditions warrant, initiate EPIP-19, "Onsite Evacuation."

4.3.2.3 Implement additional Emergency Plan Implementing Procedures according to the situation that resulted in the emergency being classified as a GENERAL EMERGENCY.

4.3.2.4 Direct the Security Director to call in Onsite and Offsite Emergency Organization personnel by utilizing the appropriate computer call-out listing.

4.3.2.5 Direct the STSC Communicator (or Government Liaison Engineer) to prepare Appendix D, "Follow-up Emergency Message Form" in accordance with instructions provided in Appendix F.

4.3.2.6 Determine the need for offsite assistance. If assistance is necessary, direct the STSC Communicator (onshift) or Administrative and Logistics Coordinator to contact the required agency per EPIP-33, "Offsite Assistance."

4.3.2.7 Reevaluate the emergency classification and perform licensee actions as conditions change by implementing procedure EPIP-02.

4.3.2.8 When the situation warrants downgrading from a GENERAL EMERGENCY, proceed to appropriate implementing and notification procedures and direct the Shift Supervisor to announce the downgrading over the public address system and inform the other Control Rooms.

4.3.2.9 Provide overall direction and control of the ONSHIFT emergency response as per Appendix I - Emergency Coordinator Response. 9

4.3.3 PVNGS Security, after being notified by the Emergency Coordinator or STSC Communicator that a General Emergency is in progress or has occurred, or has been terminated, shall complete Appendix B, "Emergency Notification Call List - PVNGS Security," and notify these individuals or departments of the situation.

4.3.4 Operations Support Center (OSC) Activation

4.3.4.1 The OSC Coordinator shall implement EPIP-12, "Operations Support Center Activation."

4.3.5 Emergency Operations Facility (EOF) Activation

4.3.5.1 The Emergency Operations Director shall implement procedure EPIP-13, "Emergency Operations Facility Activation."

4.3.6 Emergency Situation Terminated

4.3.6.1 The Shift Supervisor (or Emergency Coordinator) shall ensure the "All Clear" signal is sounded for approximately (1) minute and that the following announcement is made over the plant wide page

"ATTENTION ALL PERSONNEL. THE EMERGENCY SITUATION DECLARED IN UNIT _____ HAS NOW BEEN TERMINATED. (Provide special instructions as necessary)

4.3.6.2 Ensure the announcement in Step 4.3.6.1 is repeated over the Site Warning Siren/Public Address System. 9

4.3.6.3 Ensure Steps 4.3.6.1 and 4.3.6.2 are repeated once. 9

4.3.6.4 Direct the STSC Communicator (or Government Liaison Engineer) to fill out Appendix E, "Emergency Termination Message Form," per instructions provided in Appendix F.

4.3.6.5 Direct the STSC Communicator (or Government Liaison Engineer) to transmit the termination per Appendix A.

4.3.6.6 At close out or reduction of the GENERAL EMERGENCY classification, the S.S./E.C. shall notify PVNGS Compliance Dept. at ext. [redacted] or beeper no. [redacted] or [redacted] to provide written summary of the event to offsite authorities within eight (8) hours. S.S./E.C. shall provide shift logs, control room logs, etc. as requested by Compliance for preparation of the report.

4.3.7 Record Retention

4.3.7.1 Appendices A, B, C, D, E, ~~I and J~~ Max shall be turned over to the Emergency Planning Dept., mail station 6010 to ensure they are forwarded to DDC for proper storage in accordance with 9N219.05.00, "Document/Record Turnover Control." 9

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-06	APPENDIX A Page 1 of 1
GENERAL EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 12 of 39

9

EMERGENCY NOTIFICATION CALL LIST

EMERGENCY COORDINATOR/STSC COMMUNICATOR

AGENCY OR INDIVIDUAL	PRIMARY LINK	ALTERNATE LINK	ALTERNATE LINK	INITIAL CALLER DATE/TIME	TERMINATION CALLER DATE/TIME
Arizona Department of Public Safety	NAN	Radio System Channel 8 Frequency		/	/
Maricopa County Sheriff's Office	NAN	Radio System Channel 8 Frequency		/	/
Arizona Radiation Regulatory Agency	NAN	Radio System Channel 8 Frequency		/	/
Arizona Division of Emergency Services	NAN	Radio System Channel 8 Frequency		/	/
Maricopa County Department of Civil Defense and Emergency Services	NAN	Radio System Channel 8 Frequency		/	/
PVNGS Security				/	/
Group Paging System #1				/	/
Group Paging System #2				/	/
PVNGS Plant Manager				/	/
Operations Manager				/	/
Manager*				/	/
Maintenance Manager *				/	/
Plant Services Manager*				/	/
Dispatcher (SOC)				/	/
NRC Headquarters				/	/

* Call these personnel in sequence until one of them is reached only if unable to contact PVNGS Plant Manager or Operations Manager.

PV216-00DA (5/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-06	APPENDIX B Page 1 of 1
GENERAL EMERGENCY IMPLEMENTING ACTIONS	REVISION 9	Page 13 of 39

9

EMERGENCY NOTIFICATION CALL LIST - PVNGS SECURITY

AGENCY OR INDIVIDUAL	PRIMARY LINE	ALTERNATE LINE	INITIAL DATE/TIME	INITIAL CALLER	TERMINATION DATE/TIME	TERMINATION CALLER
Corporate Security	[redacted]		___/___	_____	___/___	_____
Site Construction Security Office*			___/___	_____	___/___	_____
Nuclear Administration			___/___	_____	___/___	_____
ANPP Communications*			___/___	_____	___/___	_____
ANPP Site Construction Office*			___/___	_____	___/___	_____
Bechtel Emergency Control Center*			___/___	_____	___/___	_____

*Available during working hours only.

PV216-00DA (8/82)

INITIAL EMERGENCY MESSAGE FORM
NOTIFICATION OF UNUSUAL EVENT,
ALERT, SITE AREA EMERGENCY, OR GENERAL EMERGENCY

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL!! (Circle One)
THIS IS PALO VERDE NUCLEAR GENERATING STATION (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
(circle appropriate classification)

declared at _____ (time) - _____ (date) - Wind is from _____ degrees - At _____ (speed) mph.

PALO VERDE AUTHENTICATOR _____
(authenticator letters)

2. This is _____, at the Palo Verde Nuclear Generating
(name/title)
Station Unit _____. 9

3. (Circle One)

(a) There is NO, repeat NO, radioactive release taking place and no special protective actions are recommended at this time.

OR

(b) There is NO, repeat NO, radioactive release in excess of allowable operating limits and NO protective action recommendations at this time.

OR

(c) There is NO, repeat NO, radioactive release taking place at this time. However, the following protective actions are recommended.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(d) A radioactive release IS, repeat IS, taking place. We recommend that people in affected sectors remain indoors with windows and doors closed.

Sectors	Distance (Miles)
_____	_____
_____	_____

OR

(e) A radioactive release IS, repeat IS, taking place. We recommend that evacuation of affected sectors be considered.

Sectors	Distance (Miles)
_____	_____
_____	_____

4. THIS IS (IS NOT) A DRILL!! (Circle One)

Approved _____
(S.S./E.C./E.O.D.) Date Time

CONTROLLED DOCUMENT

FOLLOW-UP EMERGENCY MESSAGE FORM

1. Verbatim text of Message: THIS IS (IS NOT) A DRILL!! (Circle One)
   THIS IS A PALO VERDE NUCLEAR GENERATING STATION follow-up information message concerning the (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY)
   (circle appropriate classification)

   declared at _____ - _____
   (time) (date)

2. This is _____, at Palo Verde Nuclear Generating Station Unit _____.
   (name/title)

3. Brief description of the event _____

4. Meteorological Data

   a. Wind direction from _____ (degrees) - at _____ miles per hour
      (direction) (speed)

      from _____ to _____
      (sector) (sector)

   b. Stability Class: A B C D E F G
      (Circle One)

   c. Precipitation Yes No
      (Circle One)

5. Radiological Data

   a. Radioactvity (check one)

      ( ) Has been released
      ( ) Has not been released

5. b. Release Time _____

   c. Reactor Trip Time _____

   d. Location/Source of Release _____

6. Current Release Rates

   a. I-131 Equivalent _____ Ci/second
   b. Noble Gas _____ Ci/second
   c. Particulates _____ Ci/second

7. Two-hour plume centerline projected dose at:

Distance	Sector	Whole Body Dose (REM)	Child Thyroid Dose Commitment (REM)
Site Boundary			
2 miles			
5 miles			
10 miles			

8. Plume arrival time offsite:

   _____ 2 mi
   _____ 5 mi
   _____ 10 mi
   _____ Ruth Fisher School*
   _____ Arlington School

9. Estimated duration of release _____ minutes

10. The Following Emergency Measures Including Protective Actions are Recommended:

_____

_____

_____

11. The Following Emergency Response Actions are Underway:

_____

_____

_____

12. We Request the Following Onsite Support and Assistance from Offsite Sources:

_____

_____

_____

13. Our Prognosis of the Emergency is that Conditions:

_____Are Under Control
_____Can Be Expected to Terminate Within _____hours
_____Are Worsening

14. Other Information:

a) Power Prior to Event (%) _____
b) Current Power or mode _____
c) Mode of Operation Till Correction _____
d) Estimated Time to Restart _____

15. THIS IS (IS NOT) A DRILL! (Circle One)

9

EMERGENCY TERMINATION MESSAGE FORM

1. Verbatim text of message: THIS IS (IS NOT) A DRILL!! (Circle One) THIS IS PALO VERDE NUCLEAR GENERATING STATION. THE (NOTIFICATION OF UNUSUAL EVENT) (ALERT) (SITE AREA EMERGENCY) (GENERAL EMERGENCY) (circle approprite classification) DECLARED AT _____ (Time) - _____ (Date) HAS BEEN TERMINATED AT

   _____ (Time) - _____ (Date).

2. This is _____ (Name) _____ (Date), at Palo Verde Nuclear Generating Station Unit _____.

3. PALO VERDE AUTHENTICATOR _____ (Authenticator Letters).

Approved: _____ (SS/EC/EOD) Date/Time

9

CONTROLLED DOCUMENT

INSTRUCTIONS FOR COMPLETING APPENDIX C, D OR E

1.0 INITIAL EMERGENCY MESSAGE FORM (APPENDIX C)

1.1 Fill in data required by steps 1 and 2 of Appendix C, "Initial Emergency Message Form." Obtain authenticator from the confidential envelope marked on the outside with the appropriate month and drill sequence number (if it is a drill).

1.2 Obtain from the Radiation Protection Monitor (onshift) or Radiological Assessment Coordinator (if EOF is activated) data required to complete step 3 of Appendix C.

1.3 Circle appropriate wording of step 4 of Appendix A.

NOTE

When the NAN ring button is pushed and it appears that all the receiving stations are on line, or, the ring has stopped, the PVNGS originating station shall initiate a roll call in the order listed below. (Consider the time of day)

NOTE

If the NAN dedicated telephone fails, refer to Appendix G, "Notification Alert Network (NAN) Radio Backup," for instructions on using channel 8, KON-511, for notification.

1.4 By means of a single call on the Notification and Alert Net dedicated telephone, contact the following State/County agencies listed in Appendix A.

Duty Hours (8:00 a.m. to 5:00 p.m. Monday-Friday)

Maricopa County Sheriff's Office
Maricopa County Department of Civil Defense and Emergency Services
Arizona Department of Public Safety
Arizona Division of Emergency Services
Arizona Radiation Regulatory Agency

Off-Duty Hours (5:00 p.m. to 8:00 a.m., Monday-Friday, all day Saturday, Sunday and holidays)

Maricopa County Sheriff's Office
Department of Public Safety

1.5 In the event that an offsite government agency (or agencies) does not answer the NAN phone or NAN backup radio during a test, drill or actual emergency, the Nuclear Operator (or STSC Communicator) shall notify the agency via regular PBX telephone (numbers listed in Appendix A).

1.6 When contact is made, the caller shall identify himself and request that the individuals obtain a copy of the Appropriate Emergency Message Form.

1.7 When each individual has obtained a copy, read the completed Emergency Message Form verbatim and request MCSO to read back verbatim. Perform warning point roll call.

1.8 Offer to repeat information and reiterate as necessary.

NOTE

To verify the group page activation, monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

1.9 Notify additional personnel as listed in Appendix A as necessary and inform them of the situation. Provide the following message for both Group Paging Systems Notification and Callout:

"THIS IS PVNGS, UNIT ____, CLASSIFICATION TWO, PLEASE RESPOND APPROPRIATELY." (Repeat message once).

1.10 If an individual requests information not contained in the Emergency Message Form, make reasonable efforts to obtain and give the information only after all initial notification have been made.

1.11 Contact the NRC via the Emergency Notification System (ENS) dedicated telephone within 60 minutes of declaring an emergency. If the ENS fails, use commercial phone or HPN phone as an alternate line.

1.12 When contact is made, the caller shall identify himself and read the completed Emergency Message Form verbatim (omit the Palo Verde Authenticator).

1.13 Offer to repeat information and reiterate as necessary.

2.0 FOLLOW-UP EMERGENCY MESSAGE FORM (APPENDIX D)

2.1 Fill in data required by steps 1-3 of Appendix D, "Follow-up Emergency Message Form."

NOTE

If the emergency is non-radiological in nature, steps 4-9 may be deleted.

2.2 Obtain from the Radiation Protection Monitor or the Radiological Assessment Coordinator (If EOF is activated) data required to complete steps 4-9.

2.3 Obtain from the Emergency Coordinator or the Technical Analysis Coordinator (If EOF is activated) data required to complete steps 10-14.

2.4 Circle appropriate wording in step 15.

2.5 Dispense information when asked by offsite agencies (NRC or ARRA).

3.0 EMERGENCY TERMINATION MESSAGE FORM (APPENDIX E)

3.1 Fill in data required by steps 1-3 at Appendix E, "Emergency Termination Message Form."

3.2 Obtain approval from SS/EC/EOD.

3.3 Transmit termination per Appendix A.

NOTE

To verify the group page activation, monitor the pager installed in the STSC. Be aware that as much as two (2) minutes may lapse between dial-up and the broadcast announcement.

3.4 When using the Group Paging Systems to announce event termination, use the following message:

"THIS IS PVNGS UNIT ____, EMERGENCY TERMINATED. PLEASE CANCEL RESPONSE TO EMERGENCY."

NOTIFICATION ALERT NETWORK (NAN) RADIO BACKUP
Channel 8 - KON511

In case of failure of the NAN ringdown telephone, the NAN backup is Channel 8 on the PVNGS radio. FCC regulations require the Palo Verde Designator 'KON511' be used to precede and conclude all outgoing communications.

1. Take control of the radio channel by saying: "All stations this net," (Repeat) "All stations this net, this is K-O-N 5-1-1 Palo Verde. 5-1-1 Palo Verde to all 5-1-1 stations, stand by for Warning Point roll call."

2. Wait thirty seconds to allow the offsite agencies to get to their radios, then repeat the previous transmission.

NOTE

After 5 P.M. weekdays, all day Saturday, Sunday or holidays, Maricopa County Sheriff's Office (MCSO) and Department of Public Safety (DPS) will be the only agencies responding.

3. Initiate roll call of the offsite government agencies, allowing stations on the net to respond.

   3.1 "5-1-1 Palo Verde to 5-1-1 Maricopa County Sheriff's Office. Do you copy?"
   Allow Response: "5-1-1 MCSO copies."

   3.2 "5-1-1 Palo Verde to 5-1-1 Maricopa County Department of Civil Defense & Emergency Services. Do you copy?" (MCDCD&ES)
   Allow response: "5-1-1 Civil Defense copies."

   3.3 "5-1-1 Palo Verde to 5-1-1 Department of Public Safety. Do you copy?"
   Allow response: "5-1-1 DPS copies."

   3.4 "5-1-1 Palo Verde to 5-1-1 Arizona Division of Emergency Services. Do you copy?"
   Allow response: "5-1-1 ADES (State EOC) copies."

   3.5 "5-1-1 Palo Verde to 5-1-1 Arizona Radiation Regulatory Agency. Do you copy?"
   Allow response: "5-11 ARRA copies."

4. Upon completion of roll call, transmit the notification message verbatum. Take acknowledgement roll call, allowing MCSO to read the message back in its entirety, and provide assistance or clarification, as needed.

5. Upon completion of the second roll call, announce: "K-O-N 5-1-1 Palo Verde off." This is the required FCC sign-off.

6. Continue notification per Step 1.8 Appendix F.

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PROTECTIVE ACTION RECOMMENDATIONS

Classification Category	Protective Actions Recommendations
1. A General Emergency has been declared if: (imminent/actual loss of physical control of the plant)	Recommend shelter within a 2 mile radius, and out to 5 miles within potentially affected sectors* Consider a 2 mile precautionary evacuation.
2. A General Emergency has been declared and large amounts of fission products are in the containment atmosphere. The projected dose using containment area monitor readings is calculated to be: a) whole body > 5 rem b) thyroid > 25 rem	In addition to considering a 2 mile evacuation, consider a 5 mile downwind evacuation of potentially affected sectors.*
3. A General Emergency has been declared and containment failure leading to a direct atmospheric release is likely in the sequence but not imminent and large amounts of fission products in addition to noble gases are in the containment atmosphere. The projected dose using containment area monitor readings is calculated to be: a) whole body > 5 rem b) thyroid > 25 rem	In addition to considering a 2 mile 360° precautionary evacuation, consider a precautionary 360° evacuation to 5 miles and a downwind evacuation to 10 miles of potentially affected sectors. *
4. A General Emergency has been declared and large amounts of fission products other than noble gases in the containment atmosphere and containment failure is judged imminent. The projected dose using containment area monitor readings is calculated to be: a) whole body > 5 rems b) thyroid > 25 rems	In addition to considering a 2 mile 360° precautionary evacuation consider a precautionary 360° evacuation to 5 miles and a downwind evacuation to 10 miles of potentially affected sectors,* and consider shelter for areas where evacuation cannot be completed before the transport of activity to those areas.

9

* Plume width is equal to 3 sigma y (as a minimum, the downwind sectors and adjacent sectors).

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PROTECTIVE ACTION RECOMMENDATIONS (CONT'D)

Classification Category	Protective Actions Recommendations
5. An actual release has occured and the projected does to individuals in the population is calculated to be: a) whole body $\geq$ 0.5 to < 1 rem b) thyroid $\geq$ 1.0 to < 5 rems	Recommend seeking shelter 360° for 2 miles and in affected sectors out to 10 miles.
6. An actual release has occured and the projected does to individuals in the population is calculated to be: a) whole body > 1 rem to $\leq$ 5 rems b) thyroid > 5 rems to $\leq$ 25 rems	Recommend a 360° evacuation for 2 miles and in affected sectors* out to 10 miles. Recommend seeking shelter 360° out to 10 miles.
7. An actual release has occured and the projected does to individuals in the population is calculated to be: a) whole body > 5 rems b) thyroid > 25 rems	Recommend a 360° evacuation for 5 miles and in affected sectors* out to 10 miles. Recommend seeking shelter 360° out to 10 miles.

* Plume width is equal to 3 sigma y (as a minimum, the downwind sector(s) and adjacent sectors).

9

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

POSITION FILLED BY:

1) PVNGS Plant Manager
2) Manager, Technical Support
3) Shift Supervisor

RESPONSIBILITY: The individual onsite with the responsibility and authority to immediately and unilaterally initiate emergency actions, including providing notification and protective action recommendations to Governmental authorities responsible for implementing offsite emergency measures. Provide for the control and coordination of onsite emergency response.

NOTE

Refer to the following pages
per appropriate facility activation

Facility Activated	Appendix I Page
STSC	1 - 4
TSC	5 - 8
TSC/EOF	9 - 12

INITIAL RESPONSE

1. Receive notification from the Shift Supervisor and report to the Control Room of affected unit.

2. Ensure site wide P.A. announcement is made as per steps 4.3.1.5 and 4.3.1.6 of this procedure.

3. Review plant status, initiating event, corrective actions and emergency classification with the Shift Supervisor.

4. Assume the position of onshift Emergency Coordinator.

5. Activate the Satellite TSC per EPIP-11, "Technical Support Center/Satellite TSC Activation."

6. Commence notification process per Appendix F or direct STSC Communicator to do so.

   (1) Direct the Security Director to call in the PVNGS onsite and offsite Emergency Organization personnel.

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9

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

SUBSEQUENT RESPONSE

7. Provide plant wide public address announcements where the STSC is activated.

8. Verify personnel resources are on standby in the OSC.

9. Reevaluate the emergency classification as conditions change per EPIP-02, reclassify as necessary.

10. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

    (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire dept. for assistance (if required).

    (2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

11. Determine any additional protective action recommendations to be provided to state and county response agencies per EPIP-15, "Protective Action Guidelines."

12. As appropriate, complete Follow-up Emergency Message Form.

13. Determine need for offsite support and direct the STSC Communicator to call location(s) in EPIP-33, "Offsite Assistance" and arrange access with the Security Director per EPIP-24, "Security."

Personnel Assembly and Accountability

14. Within 30 minutes of the accountability signal, receive a report on accountability in the protected area from the Security Director.

15. Receive a report on site accountability later.

16. Be prepared to implement EPIP-21, "Search and Rescue," by providing necessary data to the OSC Coordinator.

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EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

Emergency Exposures and KI

17. Per EPIP-18, "Emergency Exposure Guidelines," and as necessary, authorize emergency exposures.

18. As necessary, authorize administration of KI per EPIP-26, "Potassium Iodide (KI) Administration" to emergency workers desiring to use it. Consult with the Radiation Protection Monitor.

TSC Activation and Transfer of Authority

19. When relieved by the onsite Emergency Coordinator provide a briefing and transfer responsibilities.

OSC Activation

20. If a release is occurring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of primary OSC.

21. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordinator to relocate to a protected area (Control Room/STSC, TSC or EOF).

Security

22. As necessary, implement EPIP-24, "Security," and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

23. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

24. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

EMERGENCY COORDINATOR RESPONSE
STSC ACTIVATED

Assessment Actions

25. Ensure that the Radiation Protection Monitor or is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions

26. Continue to evaluate the need for providing any additional protective action recommendations.

27. Determine need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation."

28. Establish evacuation order, offsite reassembly area, evacuation route and inform the Security Director.

29. Order evacuation signal when the Security Director reports that preparations are complete.

Event Termination or Reduction

30. Contact PVNGS Compliance at Ext. [redacted] beeper No. [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

9

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

INITIAL RESPONSE

1. Receive notification from the onshift Emergency Coordinator and report to the TSC. Upon arrival, sign in onthe TSC Staffing Board

2. Receive a briefing from the onshift Emergency Coordinator and assume responsibilities.

3. Brief TSC staff and evaluate adequacy of TSC activation.

4. Declare the TSC operational and inform the STSC, Control Rooms, OSC, EOF, ANPP Site Construction Office, Bechtel Emergency Control Center and PVNGS Security via site wide P.A. announcement. This notification may be delegated to the Information Monitor in the TSC.

5. As necessary continue with or commence notification process per Appendix F or direct the STSC Communicator to do so.

6. Verify personnel resources are on standby in the OSC.

SUBSEQUENT RESPONSE

7. Reevaluate the emergency classification as conditions change per EPIP-02 "Emergency Classification," reclassify as necessary.

8. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

19

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

(1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

(2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offsite assistance.

9. Determine any additional protective action recommendations to be provided to state and county response agencies per EPIP-15, "Protective Action Guidelines."

10. As appropriate, complete Follow-up Emergency Message Form.

11. Determine the need for offsite support and direct the STSC Communicator to call location(s) in EPIP-33, "Offsite Assistance," arrange access with the Security Director or EPIP-24, "Security."

Personnel Assembly and Accountability

12. Within 30 minutes of the accountability signal, receive a report on accountability in the protected area from the Security Director.

13. Receive a report on site accountability later.

14. Be prepared to implement EPIP-21, "Search and Rescue," by providing necessary data to the OSC Coordinator (via Emergency Maintenance Coordinator).

Emergency Exposures and KI

15. Per EPIP-18, "Emergency Exposure Guidelines," and as necessary, authorize emergency exposures.

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

16. As necessary, authorize administration of KI per EPIP-26 to emergency workers desiring to use it. Consult with the Radiological Protection Coordinator.

OSC Activation

17. If a release is occurring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of the primary OSC.

18. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/supplies to the alternate OSC (service Building). If this is also unihabitable, direct the OSC Coordinator to relocate to a protected area (control room/ STSC, TSC or EOF).

EOF Activation

19. Per EPIP-13, "Emergency Operations Facility Activation," brief the Emergency Operations Director and transfer the responsibilities for notifications and protective action recommendations.

Security

20. As necessary, implement EPIP-24, "Security," and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

21. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Actions

22. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

9

EMERGENCY COORDINATOR RESPONSE
TSC ACTIVATED

Assessment Actions

23. Ensure that the Radiological Protection Coordinator is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions

24. Continue to evaluate the need for providing any additional protective action recommendations.

25. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation."

26. Establish evacuation order, offsite reassembly area, evacuation route and inform the Security Director.

27 Order evacuation signal when the Security Director reports that preparations are complete.

Recovery

28. After the EOF is activated, consult with the Emergency Operations Director concerning implementing EPIP-31, "Recovery."

Event Termination or Reduction

29. Contact PVNGS Compliance at Ext. [redacted] or beeper no. [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

9

EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

INITIAL RESPONSE

1. Receive notification from the onshift Emergency Coordinator and report to TSC. Upon arrival, sign in on the TSC Staffing Board.

2. Receive a briefing from the onshift Emergency Coordinator and assume responsibilities.

3. Brief TSC staff and evaluate adequacy of TSC activation.

4. Declare the TSC operational and inform the STSC, Control Rooms, OSC, EOF, ANPP Site Construction Office, Bechtel Emergency Control Center and PVNGS Security via site wide P.A. Announcement. This notification may be delegated to the Information Monitor in the TSC.

5. Per EPIP-13, "Emergency Operations Facility Activation," brief the Emergency Operations Director and transfer the responsibilities for notifications and protective action recommendations.

6. Verify personnel resources are on standby in the OSC.

SUBSEQUENT RESPONSE

7. Reevaluate the emergency as conditions change per EPIP-02, "Emergency Classification," reclassify as necessary.

8. As necessary, direct implementation of EPIP-23, "Fire Fighting" and EPIP-22, "Personnel Injury."

   (1) For a fire, dispatch Fire Team and order the Security Director to contact the Bechtel or alternate offsite fire department for assistance (if required).

   (2) For personnel injury, contact the First Aid Station and inform them of the situation. Dispatch a First Aid Team, if necessary, and coordinate any required offiste assistance.

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9

EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

9. Determine the need for offsite support and direct the STSC Communicator to call location(s) in EPIP-33, "Offsite Assistance," arrange access with the Security Director per EPIP-24, "Security," and coordinate with the Administrative and Logistics Coordinator at the EOF.

Personnel Assembly and Accountability

10. Within 30 minutes of the accountabilty signal, receive a report on accountability in the protected area from the Security Director.

11. Receive a report on site accountability later.

12. Be prepared to implement EPIP-21, "Search and Rescue," by providing necessary data to the OSC Coordinator (via Emergency Maintenance Coordinator).

Emergency Exposures and KI

13. Per EPIP-18, "Emergency Exposure Guidelines," and as necessary, authorize emergency exposures.

14. As necessary, authorize administration of KI per EPIP-26 to emergency workers desiring to us it. Consult with the Radiological Protection Coordinator.

OSC Activation

15. If a release is occuring, consult EPIP-12, "Operations Support Center Activation," to determine habitability of primary OSC.

16. If uninhabitable, direct the OSC Coordinator to relocate staff and equipment/ supplies to the alternate OSC (Service Building). If this is also uninhabitable, direct the OSC Coordinator to relocate to a protected area (Control Room/STSC, TSC or EOF).

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19

EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

Security

17. As necessary, implement EPIP-24, "Security," and order the Security Director to limit access to the station, contact Maricopa County Sheriff's Office for assistance in controlling site access, and arrange access for necessary personnel not on the Emergency Personnel Access List and/or not having access to the protected area via card-key system.

18. Ensure the Security Director is appraised of offsite assistance requests to arrange access.

Corrective Actions

19. Determine needs, consult with staff, authorize reentry per EPIP-25, "Reentry for Emergency Operations."

Assessment Actions

20. Ensure that the Radiological Protection Coordinator is obtaining needed data using EPIP-14A, "Release Rate Determination," EPIP-14B, "Initial Dose Assessment," EPIP-16, "Inplant Surveys and Sampling" and EPIP-17, "Onsite/Offsite Surveys and Sampling."

Protective Actions

21. Determine the need for early dismissal/evacuation of non-essentials per EPIP-19, "Onsite Evacuation."

22. Establish eavcuation order, offsite reassembly area, evacuation route and inform the Security Director.

23. Order evacuation signal when the Security Director report that preparations are complete.

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9

EMERGENCY COORDINATOR RESPONSE
TSC and EOF ACTIVATED

Recovery

24. Consult with the Emergency Operations Director concerning implementing EPIP-31, "Recovery."

Event Termination or Reduction

25. Contact PVNGS Compliance at Ext. [redacted] or [redacted] to provide written summary within 8 hours to offsite authorities. Provide documentation as requested.

9

STSC COMMUNICATOR RESPONSE

POSITION FILLED BY: Nuclear Operator from affected unit.

RESPONSIBILITY: Initiate the notification process as directed by the onshift Emergency Coordinator. Ensure operability of communications equipment. Maintain communications logbook.

IMMEDIATE ACTIONS

STSC Activation

1. Report to the STSC upon notification.

Notification of ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

2. Complete the initial Emergency Message Form as directed by the Onshift Emergency Coordinator or Shift Supervisor.

3. Initiate notification process as directed by the Emergency Coordinator (or Shift Supervisor in his absence).

4. Inform the Emergency Coordinator when initial notifications are complete.

5. Contact the Security Director and inform him to call in additional personnel if so directed by the Emergency Coordinator.

6. Prepare the Follow-up Emergency Message Form as directed by the Emergency Coordinator.

*7. Provide follow-up information when requested by the State/County agencies.

*8. Maintain records of communications received or transmitted offsite.

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*Continuing Activity

9

Notification of ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

Offsite Assistance

9. Contact required offsite assistance (EPIP-33,"Offsite Assistance," Appendix A) via telephone if directed by the Emergency Coordinator.

10. Record name and time on "Telephone Communication Log Sheet" (EPIP-33, Appendix B).

11. Transfer call to Emergency Coordinator for clarificaton, if necessary.

12. Inform the Emergency Coordinator of contact/lack of contact, scope of offsite assistance and estimated time of arrival.

ACTIVATION OF ONSITE EMERGENCY ORGANIZATION

13. Transfer continuous communications link with the NRC to the NRC Liaison - Operations in the TSC.

14. Review status of notifications and transfer responsibility for notifying State/County agencies ard NRC to Government Liaison Engineer in the EOF.

15. Notify the Emergency Coordinator when responsibilities have been transferred to the Government Liaison Engineer.

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-11	
TECHNICAL SUPPORT CENTER/SATELLITE TSC ACTIVATION	REVISION 5	Page 1 of 48

ASSIGNED COPY
PVNGS #8-9B

DEPT. HEAD Harry C. Bailey for Dennis Fowler DATE 12/4/85

PRB/PRG/TRRG REVIEW O.J. Zeringue DATE 1/2/86

APPROVED BY J R Bynum DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1664A/0296A

PV216-00DA (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-11	
TECHNICAL SUPPORT CENTER/SATELLITE TSC ACTIVATION	REVISION 5	Page 2 of 48

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	5/10/85	ALL	Revised to incorporate PCN #01 of Rev. 2 and to reflect actual policies and practices of Emergency Planning.
4	9/18/85	3,4,5,6,9,10, 15,16,17,19, 20,22,23,24, 25,26,28,30, 39,42	Revised to reflect new rev. of E-Plan and to incorporate previous drill comments.
5	9-15-86		Deleted Checklists

TABLE OF CONTENTS

APPENDICES

5

CONTROLLED DOCUMENT

5

APPENDICES (CONT'D)

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 To provide instructions for the activation and operation of the Technical Support Center (TSC) and the Satellite TSC (STSC).

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-03, "NOTIFICATION OF UNUSUAL EVENT Implementing Actions"

2.1.2 EPIP-04, "ALERT Implementing Actions"

2.1.3 EPIP-05, "SITE AREA EMERGENCY Implementing Actions"

2.1.4 EPIP-06, "GENERAL EMERGENCY Implementing Actions"

2.1.5 EPIP-14A, "Release Rate Determination"

2.1.6 EPIP-14B, "Initial Dose Assessment"

2.1.7 EPIP-15, "Protective Action Guidelines"

2.1.8 EPIP-16, "Inplant Surveys and Sampling"

2.1.9 EPIP-17, "Onsite/Offsite Surveys and Sampling"

2.1.10 EPIP-18, "Emergency Exposure Guidelines"

2.1.11 EPIP-20, "Personnal Assembly and Accountability"

2.1.12 EPIP-21, "Search and Rescue"

2.1.13 EPIP-25, "Reentry for Emergency Operations"

2.1.14 EPIP-26, "Potassium Iodide (KI) Administration"

2.1.15 EPIP-28, "Personnel Monitoring and Decontamination"

2.1.16 EPIP-29, "Area/Equipment Monitoring and Decontamination"

2.1.17 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG 0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.2.2 NUREG 0696, Feb. 1981, "Functional Criteria for Emergency Response Facilities"

2.2.3 PVNGS Emergency Plan, Rev. 6

2.2.4 75AC-9ZZ01, "Radiation Exposure Authoriztion, Permits and Control," Rev. 2.

2.2.5 ANSI N45.2.9-1974, " Requirements For Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants"

2.2.6 7N409.02.00, "Emergency Preparedness Organization and Staffing," Rev. 0.

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Activation of the TSC should be completed within the augmentation time goals set forth in the PVNGS Emergency Plan.

3.2 The Satellite TSC and the TSC may be used by designated personnel for normal daily activities as well as for training and emergency drills. Use of these facilities shall be limited to activities that will not degrade preparedness to react to abnormal conditions or reduce system(s) reliability. This use should be reviewed by the Site Emergency Planning Supervisor.

3.3 Each individual in the TSC/STSC upon event termination shall submit any written documentation to the Emergency Coordinator who ensures they are forwarded to Emergency Planning Dept. for storage in accordance with 9N219.05.00, "Document/Record Turnover Control."

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 During a NOTIFICATION OF UNUSUAL EVENT, direction and coordination of onshift emergency operations shall be provided by the Emergency Coordinator at the Satellite TSC. During an ALERT or more severe classification, emergency assessment and control shall initially be directed from the Satellite TSC and transferred to the TSC once it has been activated.

4.1.1.1 Prior to activation of the onsite and offsite Emergency Organizations, the following activities take place in the Satellite TSC:

(1) Environmental assessment (offsite dose projections).

(2) Field Monitoring Team direction by the Radiation Protection Monitor.

(3) Technical analysis by the Shift Technical Advisor (STA).

(4) Emergency management by the Emergency Coordinator (EC).

(5) Initial notifications including protective action recommendations by the Satellite TSC Communicator.

4.1.2 When the onsite and offsite Emergency Organization has been activated, the responsibility for the above listed functions shall be transferred to the TSC and/or the Emergency Operations Facility (EOF).

4.1.2.1 The Satellite TSC then functions as an extension of the TSC to provide direct technical support to the Control Room personnel in the areas of:

(1) Engineering and technical analytical support.

(2) Reactor analytical support.

(3) Unit operations support.

(4) Radiological analytical support.

4.1.3 The functions performed in the TSC are:

(1) Manage onsite emergency response.

(2) Direct onsite radiological protection activities.

(3) Direct emergency maintenance.

(4) Direct personnel accountability and site security.

(5) Direct safety and hazards control.

(6) Perform engineering and technical analysis for Control Room support.

(7) Perform reactor analysis.

(8) Provide emergency I&C support.

(9) Provide computer and chemistry technical support.

(10) Direct Inplant/Onsite field monitoring activities.

4.1.4 The TSC radiological emergency kit contains a supply of calibrated radiological monitoring equipment, protective clothing, portable lighting, and additional supplies.

4.1.5 Activation of the Satellite TSC shall take place upon declaration of a NOTIFICATION OF UNUSUAL EVENT.

4.1.6 Activation of the TSC and augmentation of the Satellite TSC staff by the onsite Emergency Organization shall take place upon declaration of an ALERT or more severe emergency.

4.2 Prerequisites

4.2.1 A NOTIFICATION OF UNUSUAL EVENT or higher emergency classification has been made.

4.3 Instructions

4.3.1 Activation of the Satellite TSC

4.3.1.1 The following onshift Emergency Organization personnel shall report to the affected unit Satellite TSC:

(1) The affected unit Shift Supervisor or Shift Supervisor of the designated unaffected unit (Onshift Emergency Coordinator) - EPIP-03, "Notification Of Unusual Event Implementing Actions," EPIP-04, "Alert Implementary Actions," EPIP-05, "Site Area Emergency Implementing Actions," EPIP-06, "General Emergency Implementing Actions."

(2) Shift Technical Advisor - Appendix A, "Shift Technical Advisor Response." 5

(3) Designated Radiation Protection Technician, (Radiation Protection Monitor) - Appendix B, "Radiation Protection Monitor Response."

(4) Designated Nuclear Operator (STSC Communicator)

4.3.1.2 The following onsite Emergency Organization personnel shall report to the affected unit Satellite TSC (if required) to relieve their respective onshift counterpart.

(1) Radiation Protection Monitor - Appendix B.

4.3.1.3 The affected Unit Superintendent (or affected Unit Day Shift Supervisor) shall report to the STSC and assume the position of Operations Advisor. He provides technical and operational advice to the Shift Supervisor, and ensure that information flow is maintained between the TSC and the Control Room as per Appendix J, "Operations Advisor (Onsite) Response." 5

4.3.2 Preliminary Activation of the Technical Support Center

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5

4.3.2.1 The Security Shift Captain shall report to the TSC, assume the duties of Security Director as per Appendix C, "Security Director Response."

4.3.3 Complete Activation of the Technical Support Center

4.3.3.1 All Emergency Organization personnel reporting to the TSC shall retrieve their activation materials from the TSC activation cabinet and establish their assigned work areas as shown in Appendix V.

4.3.3.2 The Technical Engineering Coordinator shall report to the TSC as per Appendix D, "Technical Engineering Coordinator (ONSITE) Response."

4.3.3.3 The Security Director of the onsite Emergency Organization shall report to the TSC and relieve the Security Shift Captain as per Appendix C, "Security Director Response."

4.3.3.4 The following onsite Emergency Organization personnel shall report to the TSC and perform their designated function:

(1) Emergency Coordinator - EPIP-03, EPIP-04, EPIP-05, and EPIP-06, "Emergency Coordinator Response."

(2) Technical Engineering Assistant - Appendix E, "Technical Engineering Assistant Response."

(3) Radiological Protection Coordinator - Appendix F, "Radiological Protection Coordinator (Onsite) Response."

(4) NRC Liaison - Health Physics - Appendix G, "NRC Liaison - Health Physics Response."

(5) Emergency Maintenance Coordinator - Appendix H, "Emergency Maintenance Coordinator (Onsite) Response."

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5

(6) Hazards Control Coordinator - Appendix I, "Hazards Control Coordinator (Onsite) Response."

(7) Personnel Resources Coordinator - Appendix K, "Personnel Resources Coordinator (Onsite) Response."

(8) Chemistry Coordinator - Appendix L, "Chemistry Coordinator (Onsite) Response."

(9) Reactor Analyst - Appendix M, "Reactor Analyst (Onsite) Response."

(10) Computer Support Coordinator - Appendix N, "Computer Support Coordinator (Onsite) Response."

(11) Field Team Communicator - Appendix O, "Field Team Communicator (Onsite) Response."

(12) Information Monitor - Appendix P, "Information Monitor Response."

(13) Operations Coordinator - Appendix Q, "Operations Coordinator (Onsite) Response."

(14) NRC Liaison - Operations - Appendix R, "NRC Liaison - Operations Response."

(15) Clerical Aide/Status Board Keeper-TSC - Appendix S, "Clerical Aide/Status Board Keeper-TSC Response."

4.3.4 Declaration of TSC Readiness

4.3.4.1 The onsite Emergency Coordinator shall assure TSC readiness and notify the onsite emergency response facilities that the TSC is activated.

4.3.4.2 Upon activation of the TSC, the onsite Emergency Coordinator shall relieve the onshift Emergency Coordinator of the Emergency Coordinator functions.

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SHIFT TECHNICAL ADVISOR RESPONSE

POSITION FILLED BY: (1) Shift Technical Advisor

RESPONSIBILITY: Advise and assist the Shift Supervisor on assessing plant conditions. Activate and monitor SPDS, develop trend data and provide these data to Control Room personnel.

ACTIONS

1. Report to STSC.
2. Activate the SPDS.
*3. Monitor the SPDS.
*4. Develop trend data and provide these data to the Shift Supervisor and other Control Room personnel.
*5. Advise the Shift Supervisor of corrective actions.

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* Continuing Activity

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5

RADIATION PROTECTION MONITOR RESPONSE

POSITION FILLED BY: (1) Radiation Protection Technician from affected unit

RESPONSIBILITY: Provide initial onsite and offsite dose projections. Initially direct field monitoring teams. Provide technical advice to Emergency Coordinator concerning radiological conditions and protective action recommendations. Monitor radiological assessment activities of onsite Emergency Organization upon being relieved of dose assessment and field monitoring responsibilities by Radiological Protection Coordinator or the Radiological Assessment Coordinator. Provide Control Room with appropriate information.

IMMEDIATE ACTIONS

1. Report to the STSC upon notification

2. Ensure operational status of dose calculation computer.

3. Perform initial offsite dose rate projection per EPIP-14A, "Release Rate Determination," and 14B, "Initial Dose Assessment," if a release has occurred.

4. Inform onshift Emergency Coordinator of dose rate projection results and assist in determining what protective actions are necessary per EPIP-15, "Protective Action Guidelines."

*5. Direct activities of onsite/offsite Field Monitoring Teams per EPIP-16, "Inplant Surveys and Sampling," and and EPIP-17, "Onsite/Offsite Surveys and Sampling."

*6. Evaluate need to administer Potassium Iodide (KI) per EPIP-26, "Potassium Iodide (KI) Administration."

7. If OSC is activated, contact OSC Coordinator, using the Radiological Assessment Line, to ensure that:

   (1) Sufficient radiological protection equipment is available to OSC personnel.
   (2) Continuous habitability surveys (airborne, dose rate, contamination) are being performed in the OSC.

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* Continuing Activity

CONTROLLED DOCUMENT

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SUBSEQUENT ACTIONS

Complete the following until relieved of these responsibilities by the Radiological Protection Coordinator at the TSC or the Radiological Assessment Coordinator at the EOF.

Onsite and Offsite Surveys and Sampling

8. Supervise formation, briefing, and dispatch of monitoring teams per EPIP-16 and EPIP-17.

* 9. Determine/change offsite sampling locations, if necessary.

*10. Direct that appropriate surveys and sampling be performed.

*11. Receive reports from monitoring teams every one-half hour via portable radio.

Protective Action Guidelines

*12. Update and refine dose assessments for critical receptor site locations upon significant changes in:

(1) Release rates
(2) Duration of releases
(3) Isotopic mixture of release
(4) Meteorological conditions

*13. Determine if protective actions are warranted in accordance with EPIP-15 and recommend to Emergency Coordinator.

Search and Rescue

14. Assist OSC Coordinator in determining radiation levels and approximate stay times for teams in affected areas.

* Continuing Activity

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Activation of Onsite Emergency Organization

15. Contact Radiological Protection Coordinator at TSC, using the Radiological Assessment Line or Environmental Assessment Line, to provide the following:

    (1) OSC radiation protection status

    (2) Status of onsite/in-plant field monitoring teams

    (3) Transfer of responsibility for above to Radiological Protection Coordinator

16. Transfer control of offsite field monitoring teams, dose projections, protective action recommendations to the Radiological Assessment Coordinator upon activation of the EOF.

*17. Monitor radiological assessment activities of onsite Emergency Organization and provide Control Room personnel with appropriate information.

*18. Perform dose rate measurements and air samples in STSC/CR, as required.

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* Continuing Activity

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SECURITY DIRECTOR
RESPONSE

POSITION FILLED BY: Security Shift Captain (Onshift)
Manager, Operations Security (Onsite)
Security Shift Captain (Alternate)

RESPONSIBILITY: Provide for site security, access control, personnel accountability, evacuation and medical transportation. Call out the Emergency Organization upon direction from the Emergency Coordinator.

IMMEDIATE ACTIONS

1. Report to TSC. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. If necessary, assign a Security Shift Sergeant to act as Security Shift Captain. Have him report to the Security Building.

3. Inform Access Point Guards to limit protected area access to only those possessing ACADs.

4. Call in additional personnel appropriate to the emergency classification as directed by Emergency Coordinator (EC) by utilizing automatic dialing system.

NOTE

If the Auto Dialer at PVNGS malfunctions call APS 411 Building Security and request the system be activated at the 411 Building.

5. If the Auto Dialer List One shows no acknowledgement by either the primary, alternate or backup respondent for an Emergency Organization position, inform the Emergency Coordinator of the inability to contact the respondent.

SUBSEQUENT ACTIONS

6. Contact Security Shift Captain by plant phone (ext. [redacted]) and establish security measures for station access by arriving offsite assistance personnel (ALERT or higher).

SECURITY DIRECTOR
RESPONSE (Continued)

TSC Access

7. Determine need for additional security personnel and contact as necessary.

8. Remain at TSC and complete following, as necessary, until relieved by Onsite Security Director.

9. Direct a member of the Security Force to be stationed at the TSC Entrance and to limit access to the TSC to only those personnel on the TSC Access List.

10. Grant access to emergency personnel who have been verbally authorized by Emergency Coordinator.

Personnel Assembly and Accountability

11. Contact Security Shift Captain at the Security Headquarters and have him prepare for assembly and accountability per EPIP-20, "Personnel Assembly and Accountability."

12. Inform the Security Access Point guard by normal phone [redacted] and the Craft Access Point guard [redacted] that assembly and accountability are in progress and to assist existing personnel.

13. Arrange for Construction Security to unlock Visitor's Center, if necessary.

14. Direct the Security Shift Captain to contact the Maricopa County Sheriff's Office by dedicated telephone line or radio to inform them of impending onsite evacuation and to request traffic control north or south of plant on Wintersburg Road.

15. Approximately 20 minutes after the accountability signal has sounded, obtain copies of the computer print-out of personnel who are in the protected area. (If computer or card-key unoperable, see EPIP-20)

16. Receive accountability reports from Security Shift Captain for Assembly Areas in protected area.

17. Report protected area accountability to Emergency Coordinator within 30 minutes.

18. Receive accountability reports from Security Shift Captain from site assembly area.

19. Direct security to routinely check ANPP controlled buildings to ensure they are not occupied.

20. Report overall accountability outside protected area to EC as soon as practicable.

21. Arrange to pick up Individual Accountability Sheets for each area as soon as practicable.

Search and Rescue

22. Inform EC of missing or disabled personnel and last known location so that search and rescue can begin per EPIP 21, "Search and Rescue."

Onsite Evacuation

23. Obtain information from Emergency Coordinator on assembly area evacuation order, reassembly area and evacuation route.

24. Contact Maricopa County Sheriff's Office by dedicated telephone or radio to request traffic assistance at key evacuation route points and also at the offsite reassembly area.

25. Dispatch a Security vehicle with one Security Force Member as Evacuation Team Leader to Bechtel Gate. No. 1 to prepare to lead the Bechtel manuals to the reassembly area.

26. Contact Construction Security by telephone [redacted] and request a Security Team to control traffic at the various exit gates.

27. Contact the Bus Transportation Supervisor by telephone [redacted] to deploy buses to the ANPP/Bechtel Construction Office pickup point, the Nuclear Operations pickup point, and the Water Reclamation Facility pickup point. Have him inform the drivers of the reassembly area and evacuation route.

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SECURITY DIRECTOR
RESPONSE (Continued)

28. Dispatch Security Force to bus pickup points and gates to assure the following order of evacuation (unless a different order is specified by the Emergency Coordinator):

    (1) Bechtel parking lots (personal vehicles) via Gate No. 1, 2, and 3

    (2) ANPP/Bechtel Construction Office buses via Gate No. 3

    (3) ANPP van pools via Gate No. 1A

    (4) ANPP parking lots (personal vehicles) via Gate No. 3A

    (5) ANPP Nuclear Operations buses via Gate No. 3A

    (6) ANPP Water Reclamation Facility via Gate No. 12

29. Contact the Radiological Protection Coordinator and assure that a monitoring/decontamination team has been dispatched to the reassembly area.

30. Contact the reassembly area by telephone (Palo Verde Inn [redacted] or Hassayampa Pump Station [redacted] and inform them of the impending evacuation.

31. Contact Assembly Area Supervisor at the following locations to inform them of the impending evacuation signal and the location of bus pickups.

    (1) ANPP Construction Office ext. [redacted]

    (2) Bechtel Emergency Control Center ext. [redacted]

    (Have Bechtel inform Bechtel Fire Team and Bechtel Medical Staff to remain at the Bechtel Safety office and not to evacuate.)

    (3) Admin. Annex Bldg. Assembly Area ext. 6101

    (4) Water Reclamation Facility ex[redacted]

    (5) Visitor's Center ext. [redacted]

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SECURITY DIRECTOR
RESPONSE (Continued)

32. Notify the Emergency Coordinator that preparations have been made and the evacuation signal may be given.

33. Dispatch Security Force to routinely check ANPP trailers and buildings in the Administration area outside the protected area to ensure all non-essential personnel have left the premises.

34. Request Corporate Site Security by telephone (ext. [redacted]) to routinely check the Visitor's Center, construction offices, Bechtel Warehouse and associated areas.

35. Contact the Evacuation Team Leader by radio or telephone (Palo Verde Inn [redacted] Hassayampa Pump Station [redacted] at the offsite reassembly area to determine if any emergency supplies are needed. Report all needs to Administrative and Logistics Coordinator.

Offsite Emergency Vehicle/Personnel Access to PVNGS

36. Obtain following information about emergency vehicles that may be used and inform the Security Shift Captain.

    (1) Vehicle type
    (2) License or other identification number
    (3) Color
    (4) Number of occupants

37. Dispatch a Security Force Member to accompany all vehicles.

38. Direct Security Access Point by telephone (ext. 6474) to allow entry to protected area of those ANPP personnel or contractors called to PVNGS who have not been previously authorized normal access.

Fire Fighting

39. Call Bechtel Fire Department, at [redacted] upon direction from EC, and inform of type of fire, location and extent of fire, special precautions, and special equipment.

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SECURITY DIRECTOR
RESPONSE (Continued)

40. Direct Security to assign personnel to escort Bechtel Fire Team to fire.

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TECHNICAL ENGINEERING COORDINATOR (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Manager, OPS Engineering
(2) OPS Engineering Supervisor

RESPONSIBILITY Direct engineering and systems analyses, procedures development and related licensing efforts. Maintain contact with offsite technical support groups.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board.

2. Obtain list of equipment out of commission prior to emergency.

*3. Maintain list of equipment out of commission during emergency.

*4. Access records management and obtain needed technical materials throughout emergency.

5. Ensure that the following personnel are responding as per their appropriate appendix:

   (1) Chemistry Coordinator
   (2) Reactor Analyst
   (3) Computer Support Coordinator
   (4) Technical Engineering Assistant

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* Continuing Activity

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*6. Determine need for additional engineering and technical support personnel, and inform Personnel Resources Coordinator.

SUBSEQUENT ACTIONS

* 7. Assist Emergency Coordinator as needed to determine corrective actions.

* 8. Assist Emergency Coordinator as needed during reclassification activities.

* 9. Provide updated status of reactor and unit to Technical Analysis Coordinator in the EOF using the Technical Line.

*10. Periodically brief NRC representative on plant status and corrective actions.

*11. Establish and maintain a communications line using the Operations Ring Down circuits with the Corporate Emergency Center/Engineering Group. (This may be delegated to a Technical Engineering Assistant.)

*12. Assist in determination of need for offsite technical support.

*13. Periodically provide Event Status updates to the Status Board Keeper for posting on Status Board.

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* Continuing Activity

CONTROLLED DOCUMENT

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TECHNICAL ENGINEERING ASSISTANT RESPONSE

POSITION FILLED BY: (1) Shift Technical Advisors, off-duty

(2) Other designated personnel with appropriate training

RESPONSIBILITY: Monitor plant system data via ERFDADS. Maintain liaision with Architect-Engineer concerning technical status and proposed recommendations.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board.

2. Relieve initial briefing from Technical Engineering Coordinator and establish responsible area.

*3. Monitor plant systems data via ERFDADS.

SUBSEQUENT ACTIONS

*4. If so directed, establish communications link with the Corporate Emergency Center/Engineering Group using the Operations Ringdown circuits.

*5. Maintain communication with Architect-Engineer, NSSS Supplier and required vendor personnel through the CEC/Engineering crew concerning plant status and recommendations for corrective action.

*6. Inform Technical Engineering Coordinator of proposed recommendations and significant change in plant status.

7, Submit logs and status board update sheets to Technical Engineering Coordinator when emergency is cancelled.

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* Continuing Activity

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RADIOLOGICAL PROTECTION COORDINATOR (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Manager, Radiological Services
(2) Radiological Engineer

RESPONSIBILITY: Relieve Radiation Protection Monitor of dose rate projection and onsite/inplant field monitoring supervision responsibilities. Direct onsite field monitoring activities and inplant radiological controls. Supervise dose rate projections.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Ensure that the following are available:

   (1) Meteorological overlays and base maps
   (2) Procedures and forms

3. Ensure operational status of dose calculation computer.

4. Contact Radiation Protection Monitor at STSC using the Radiological Assessment Line or Environmental Assessment Line and determine:

   (1) Extent of radiological releases and plant conditions
   (2) Location of onsite and offsite monitoring teams (if dispatched)
   (3) Status of dose assessments and protective action recommendations (If EOF is not activated.)

5. Determine need for additional personnel to assist in dose assessment.

6. Relieve Radiation Protection Monitor of responsibility for control of:

   (1) Onsite field monitoring
   (2) Inplant radiological controls
   (3) Release rate determination and dose calculations

15

7. Inform Emergency Coordinator when TSC is ready to conduct dose assessments.

SUBSEQUENT ACTIONS

Onsite and Inplant Surveys and Sampling

8. Form, brief, and dispatch Monitoring Teams through Emergency Maintenance Coordinator per EPIP-16, Inplant Survey and Sampling," and EPIP-17, "Onsite/Offsite Survey and Sampling."

9. Direct that appropriate surveys and sampling be performed.

*10. Receive reports from Inplant/Onsite monitoring teams.

*11. Receive reports of sample analysis from Radiation Protection Technicians.

*12. Receive reports on contaminated areas and/or equipment from Radiation Protection Technicians.

Onsite Evacuation

13. Determine the appropriate reassembly area and evacuation route in conjunction with Emergency Coordinator.

14. Dispatch personnel for monitoring at offsite reassembly areas through the Emergency Maintenance Coordinator.

*15. Provide guidance to the Radiation Monitoring Team at the reassembly area as requested.

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* Continuing Activity

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Emergency Exposure Guidelines

*16. Authorize doses up to the limits of 10CFR20.

17. Provide the Emergency Coordinator with radiological evaluation of situation and conditions requiring emergency exposures in excess of 10CFR20 limits.

18. Complete and sign Radiation Exposure Permit (75RP-9ZZ44, "Radiation Exposure Permits") or designate individual to complete this task.

19. Obtain initial estimates of radiation dose of exposed personnel as quickly as possible.

20. Report exposures in excess of 10CFR20 (refer to EPIP-18, Appendix B) to Emergency Coordinator.

21. Update and refine dose estimates when time permits.

Potassium Iodide (KI) Administration

22. Advise Emergency Coordinator as to when and who may voluntarily receive KI.

23. Obtain bottle(s) of 130mg KI tablets from a Radiological Emergency Kit.

24. Dispense one (1) tablet to each individual designated by Emergency Coordinator to voluntarily use KI (task may be delegated).

*25. Maintain record of Potassium Iodide Distribution as per EPIP-26, "Potassium Iodide (KI) Administration," Appendix B (task may be delegated).

Search and Rescue

*26. Assist OSC Coordinator in determining radiation levels and approximate stay times for teams in Radiologically Controlled areas.

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* Continuing Activity

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Personnel Injury

The following items should be performed by the Radiological Protection Coordinator, if possible, or by a member of the Radiological Support Staff.

27. Determine, with advice of plant nurse, the order of priorities for:

    (1) Treatment
    (2) Evacuation
    (3) Decontamination
    (4) Necessity or protective clothing/respiratory protection
    (5) Other priorities dictated by radiological/hazardous conditions.

28. Request use of onsite emergency vehicle(s).

29. Designate an individual to prepare the station ambulance to transport injured personnel to hospital.

30. Request Security to call offsite ambulance service, if onsite vehicles are unavailable, and to issue dosimetry to ambulance personnel.

31. Designate individual to meet and accompany ambulance to patient's location.

32. Determine emergency route to be used per EPIP-22, "Personnel Injury," Appendix D.

33. Designate one or more individuals qualified in use of G-M survey instruments and radiation control procedures to accompany patient to hospital.

Personnel and Area/Equipment Monitoring and Decontamination

34. Determine need for personnel monitoring and decontamination per EPIP-28, "Personnel Monitoring and Decontamination."

35. Determine if crucial areas and/or equipment requires monitoring and decontamination in accordance with EPIP-29, "Area/Equipment Monitoring and Decontamination."

36. Complete, date, and sign Radiation Exposure Permit.

37. Stipulate method of decontamination as described in EPIP-29.

Fire Fighting

38. Dispatch, upon notification by Emergency Coordinator, a monitoring team to assist with radiological aspects of fire emergency.

39. Instruct monitoring team to survey all outside fire fighting assistance personnel and supervise decontamination evaluations prior to release from site.

Reentry for Emergency Operations

40. Contact OSC Coordinator using the OSC Dedicated Phone, and provide, in conjunction with Emergency Coordinator and Emergency Maintenance Coordinator, a description of:

    (1) Work to be performed
    (2) Number of people work requires
    (3) Necessary tools, spare parts, and equipment
    (4) Radiological conditions, if known

41. Provide Emergency Coordinator, if required, with radiological evaluation of situation(s) requiring emergency exposure(s) and complete Radiation Exposure Permit authorizing emergency exposure in accordance with EPIP-18.

42. Complete or designate individual to complete the Radiation Exposure Permit detailing specific protective equipment, allowable doses and ALARA procedures outlined in EPIP-25.

43. Obtain initial estimates of radiation dose of exposed personnel as soon as possible.

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44. Receive reports of exposures in excess of 10CFR20 limits and report to Emergency Coordinator.

45. Update and refine dose estimates when time permits.

Habitability Surveys of TSC

*46. Designate Radiation Protection personnel in TSC to perform dose rate measurements and air samples as required.

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* Continuing Activity

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NRC LIAISON - HEALTH PHYSICS
RESPONSE

POSITION FILLED BY: ALARA Staff Engineer

RESPONSIBILITY: Establish continuous communications with the NRC to provide radiological information until the NRC Emergency Response Team arrives onsite.

IMMEDIATE ACTIONS

1. Report to TSC. Upon arrival, sign in on the TSC Staffing Board and establish responsible area
2. Receive briefing from the Radiological Protection Coordinator on radiological status.
*3. Establish continuous communications with the NRC using PBX phone.
4. Provide initial radiological conditions to the NRC.

SUBSEQUENT ACTIONS

*5. Maintain continuous communications with the NRC until the NRC Emergency Response Team arrives onsite.

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* Continuing Activity

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EMERGENCY MAINTENANCE COORDINATOR (ONSITE) RESPONSE

POSITION FILLED BY: (1) Manager, Maintenance
(2) Superintendent MCC

RESPONSIBILITY: Assume responsibility for plant emergency repair. Coordinate repair and damage control including directing the OSC Coordinator to assemble/dispatch Emergency Repair Teams.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.
2. Establish contact with the OSC Coordinator via the dedicated OSC Line.
3. Receive requests for all emergency teams and direct the OSC Coordinator to form these teams.
4. Access records management and obtain needed materials.
5. Determine need for additional maintenance support personnel and inform the Personnel Resources Coordinator.

SUBSEQUENT ACTIONS

Emergency Status

*6 Provide periodic updates to the OSC Coordinator of the status of the emergency.

Emergency Reentry and Repair

*7. Assess operation of plant systems including mechanical, electrical, and I&C equipment.

*8. Advise Emergency Coordinator on matters dealing with repair, maintenance, and deployment of Emergency Repair Teams.

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* Continuing Activity

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Reentry for Emergency Operations

*9. Determine if emergency repair operations are crucial to needs of Emergency Organization and inform Emergency Coordinator.

*10. Confer with Emergency Coordinator and Radiological Protection Coordinator prior to contacting OSC Coordinator or Repairs Coordinator using Maintenance Control Line with a description of:

(1) Work to be performed.

(2) Number of personnel required.

(3) Tools, spare parts and equipment needed.

(4) Radiological conditions, if known.

*11. Direct OSC Coordinator or Repairs Coordinator using Maintenance Control Line, to assemble and dispatch Emergency Repair Teams, as necessary.

Area/Equipment Monitoring and Decontamination

12. Determine if contaminated areas and/or equipment are crucial to needs of Emergency Organization and inform Emergency Coordinator to arrange for decontamination.

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* Continuing Activity

5

HAZARDS CONTROL COORDINATOR (ONSITE) RESPONSE

POSITION FILLED BY: (1) Health and Safety Administrator
(2) Safety Engineer

RESPONSIBILITY: Advise Emergency Coordinator concerning industrial safety of plant personnel. Evaluate hazards of potential or actual toxic material releases and/or chemical spills.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Determine areas that pose industrial hazards to personnel and inform Emergency Coordinator and OSC Coordinator through the Emergency Maintenance Coordinator.

3. Assist Radiological Protection Coordinator with ALARA considerations.

SUBSEQUENT ACTIONS

Search and Rescue

4. Request the Emergency Maintenance Coordinator to direct the OSC Coordinator to assemble and dispatch Search and Rescue Teams.

5. Complete Search and Rescue information sheet in EPIP-21, "Search and Rescue," Appendix D.

6. Notify Emergency Coordinator of results of search and rescue efforts.

Fire Fighting

7. Provide technical advice to Fire Team Leader during an emergency.

5

OPERATIONS ADVISOR (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Operations Superintendent of affected unit
(2) Operations Day Shift Supervisor of affected unit

RESPONSIBILITY: Act as management liaison with Control Room. Analyze plant conditions and advise Shift Supervisor and Emergency Coordinator. Ensure information flow between TSC and Control Room. Assist in development of procedures for conducting emergency operations.

IMMEDIATE ACTIONS

1. Report to STSC upon notification.

SUBSEQUENT ACTIONS

STSC Activation/Operation

*2. Provide technical and operational advice to Shift Supervisor and Emergency Coordinator, as necessary.

*3. Analyze conditions using SPDS and CRACS and provide guidance to Emergency Coordinator and Operations personnel.

*4. Establish communications with the Operations Coordinator (Onsite) in the TSC.

*5. Assist in developing emergency procedures as necessary for conducting emergency operations.

Emergency Classification

*6. Advise Emergency Coordinator via the Operations Coordinator (Onsite) as to plant status and re-classification of emergency for ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.

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* Continuing Activity

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PERSONNEL RESOURCES COORDINATOR (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Administrative Services Manager
(2) Manager, Office Services

RESPONSIBILITY

Relieve Security Director of responsibility for callout of additional emergency personnel. Plan for 24 hour emergency response organization staffing. Assist OSC Coordinator in meeting the manning requirements of OSC. Serve as primary Assembly Area Supervisor in TSC.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Assist Security Director with accountability per EPIP-20, "Personnel Assembly and Accountability."

3. Develop 24-hour manning requirements and augment staffing as required.

4. Assess and assist OSC Coordinator in meeting the manning requirements of the OSC.

5. Assign one Clerical Aide/Status Board Keeper to report to the Technical Engineering Coordinator and maintain the status boards.

SUBSEQUENT ACTIONS

Personnel Assembly and Accountability

6. Assume role of primary Assembly Area Supervisor for TSC.

7. Record names and badge numbers of personnel who have reported to TSC on Individual Accountability Sheet per EPIP-20.

8. Contact Security Shift Captain and inform of personnel and badge numbers accounted for.

PERSONNEL RESOURCES COORDINATOR (ONSITE) RESPONSE
(Continued)

Security

*9. Grant verbal authorization to personnel requesting access to TSC and notify Security Director to grant access.

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* Continuing Activity

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5

CHEMISTRY COORDINATOR (ONSITE) RESPONSE

POSITION FILLED BY: (1) Manager, Chemical Services
(2) Chemist

RESPONSIBILITY: Provide evaluation of coolant samples and air samples to aid in diagnosing reactor core conditions and release potentials. Interpret results of chemical analyses for evaluation of plant systems.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Contact onshift Chemistry Technician using regular phone line and obtain pertinent chemistry plant data.

3. Determine the need for additional chemistry support personnel, and inform the Technical Engineering Coordinator.

4. Confer with Technical Engineering Coordinator to determine needs concerning plant chemistry data.

SUBSEQUENT ACTIONS

*5. Evaluate coolant samples and air samples and interpret results of chemical analyses and assist Technical Engineering Coordinator, as necessary.

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* Continuing Activity

CONTROLLED DOCUMENT

5

REACTOR ANALYST (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Supervisor, Reactor Engineering
(2) Lead Reactor Engineer

RESPONSIBILITY: Perform detailed analyses of core physics and heat transfer parameters. Assess reactor core status and evaluate the integrity of and fuel cladding.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Assess core parameters.

3. Access records managements and obtain needed technical materials.

4. Determine need for additional reactor support personnel and inform the Technical Engineering Coordinator.

5. Inform Technical Engineering Coordinator of recommendations for operation.

SUBSEQUENT ACTION

*6. Continue to conduct analyses and assess and evaluate the integrity of plant systems and assist Technical Engineering Coordinator, as necessary.

*7 Contact Corporate Analytical Support (Deer Valley) as needed by normal phone [redacted]

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* Continuing Activity

5

COMPUTER SUPPORT COORDINATOR (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Supervisor, Hardware Maintenance
(2) Computer Engineer

RESPONSIBILITY: Provide continuous support of analyses pertaining to plant conditions and dose assessment.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Access CRACS and SPDS as requested.

3. Determine need for additional computer support personnel and inform the Technical Engineering Coordinator.

SUBSEQUENT ACTIONS

*4. Provide computer support to TSC staff, when requested.

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* Continuing Activity

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5

FIELD TEAM COMMUNICATOR (ONSITE)
RESPONSE

POSITION FILLED BY: (1) Radiation Protection Section Staff Member

RESPONSIBILITY: Maintain direct radio contact with PVNGS Inplant/Onsite Field Monitoring Teams. Assist the Radiological Protection Coordinator with dose rate projections.

IMMEDIATE ACTIONS

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Report to Radiological Protection Coordinator and obtain information on deployment of Inplant/Onsite Monitoring Teams.

3. Ensure that radio communications equipment is operable.

4. Synchronize TSC clocks with affected unit clock.

SUBSEQUENT ACTIONS

*5. Maintain communications with Inplant/Onsite Monitoring Teams via radio or plant telephone.

*6. Assist Radiological Protection Coordinator in performance of dose assessment calculations as necessary.

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* Continuing Activity

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INFORMATION MONITOR RESPONSE

POSITION FILLED BY: (1) Compliance Supervisor
(2) Compliance Engineer

RESPONSIBILITY: Shall monitor communications between the Emergency Coordinator, Operations Coordinator, and the Operations Advisor and periodically provide emergency status updates to the Onsite Emergency Organization.

IMMEDIATE ACTIONS

1. Report to TSC. Upon arrival, sign in on TSC Staffing Board and establish responsible area.

2. Establish communications link with the Emergency Coordinator, Operations Coordinator and the Operations Advisor.

3. If so directed by the Emergency Coordinator, make a Site Wide P.A. announcement that the TSC is activated using the [redacted] page.

*4. Provide periodic emergency status updates via P.A. announcements to the Onsite Emergency Organization (OSC, CR, STSC, etc.).

*5. Verify accuracy of information posted on TSC Event Status Board.

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* Continuing Activity

5

OPERATIONS COORDINATOR (ONSITE) RESPONSE

POSITION FILLED BY:
(1) Operations Superintendent of designated unaffected unit.
(2) Operations Day Shift Supervisor of designated unaffected unit.

RESPONSIBILITY:
Receive technical and operational input from the Operations Advisor and maintain the flow of information between the TSC and Control Room. Report to and assist the Emergency Coordinator.

IMMEDIATE ACTIONS

1. Report to TSC. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Establish communications with the Operations Advisor (Onsite) in the STSC.

*3. Receive data from the Operations Advisor (Onsite) and report it to the Emergency Coordinator.

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* Continuing Activity

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NRC LIAISION - OPERATIONS RESPONSE

POSITION FILLED BY: (1) License Training Instructor

RESPONSIBILITY: Assume responsibility of continuous communications with the NRC from STSC Communicator until the NRC Emergency Response Team arrives onsite.

IMMEDIATE ACTIONS

1. Report to TSC. Upon arrival, sign in on the TSC Staffing Board and establish responsible area.

2. Receive briefing from Operations Coordinator on plant status.

3. Contact STSC Communicator and receive NRC communications status.

4. Assume continuous communications with NRC from STSC Communicator using the ENS phone.

SUBSEQUENT ACTION

5. Maintain continuous communications with NRC until NRC Response Team arrives onsite.

15

CLERICAL AIDE/STATUS BOARD KEEPER-TSC
RESPONSE

POSITION FILLED BY: (1) Designated person(s) with appropriate training.

RESPONSIBILITY: Maintain record of emergency actions taken by ANPP Emergency Organization on status board. Record status of emergency.

IMMEDIATE ACTIONS:

1. Report to TSC upon notification. Upon arrival, sign in on the TSC Staffing Board.
2. Receive briefing from Personnel Resources Coordinator and establish responsible area.
3. Report readiness to Personnel Resources Coordinator.
4. Receive assignment to maintain status boards. Receive status from Technical Engineering Coordinator

SUBSEQUENT ACTIONS:

Status Boards

NOTE

Ensure time recorded on status boards is event time rather than posting time.

*5. Record status of emergency as expressed by Technical Engineering Coordinator.

Recovery

6. Submit check list to Personnel Resources Coordinator upon cancellation of emergency.

---

* Continuing Activity

CLERICAL AIDE/STATUS BOARD KEEPER - TSC

EVENT STATUS BOARD

EVENT STATUS

UNIT:_____ EMERGENCY CLASS:_____ TIME:_____

Time:_____ Date:_____

Rx Coolant System

Avg. Temp. Th_____°F Tc_____°F

Pzr. Pressure_____PSIA

Pzr. Level_____%

Rx Vessel Level_____%

Subcool Margin_____°F

Boron_____PPM

Time:_____ Date:_____

Containment

Pressure_____PSIG

Temperature_____°F

Humidity_____%

Radiation Level_____R/hr.

Where_____

Activity_____uCi/cc

Recirc. Sump Level_____ft

Isolation Status_____

Cont. Spray_____A_____B

Time:_____ Date:_____

Met. Data

Wind Speed_____mph

Wind Direction (from)_____°true

Stability Class_____

Precipitation_____in./24hrs.

Forecast_____

Inoperable Equipment

	Time	Date

Time:_____ Date:_____

Make-up

Total SI Flow_____GPM

RWT Level_____%

Pumps Available:

LPSI_____A_____B

HPSI_____A_____B

Charging_____A_____B_____E

Time:_____ Date:_____

Heat Removal

Reactor Coolant Pumps_____1A_____1B_____2A_____2B

S/G Cooling Train_____A_____B

Steam Generator Level, %WR_____1_____2

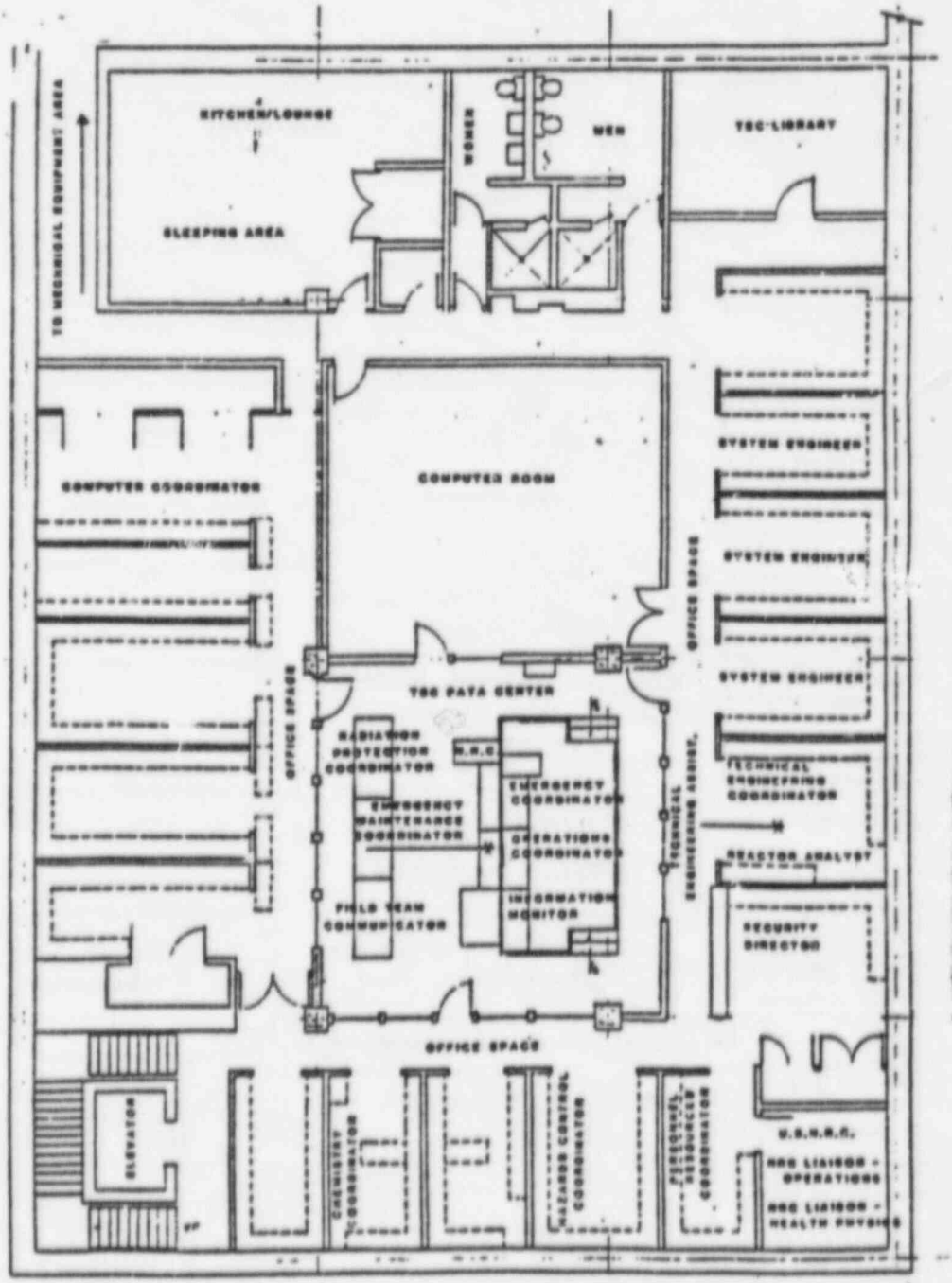
Aux. Feed Water to SG, GPM_____1_____2

Aux. Feed Water Pumps Running_____A_____B_____N

Condensate Storage Tank Level_____

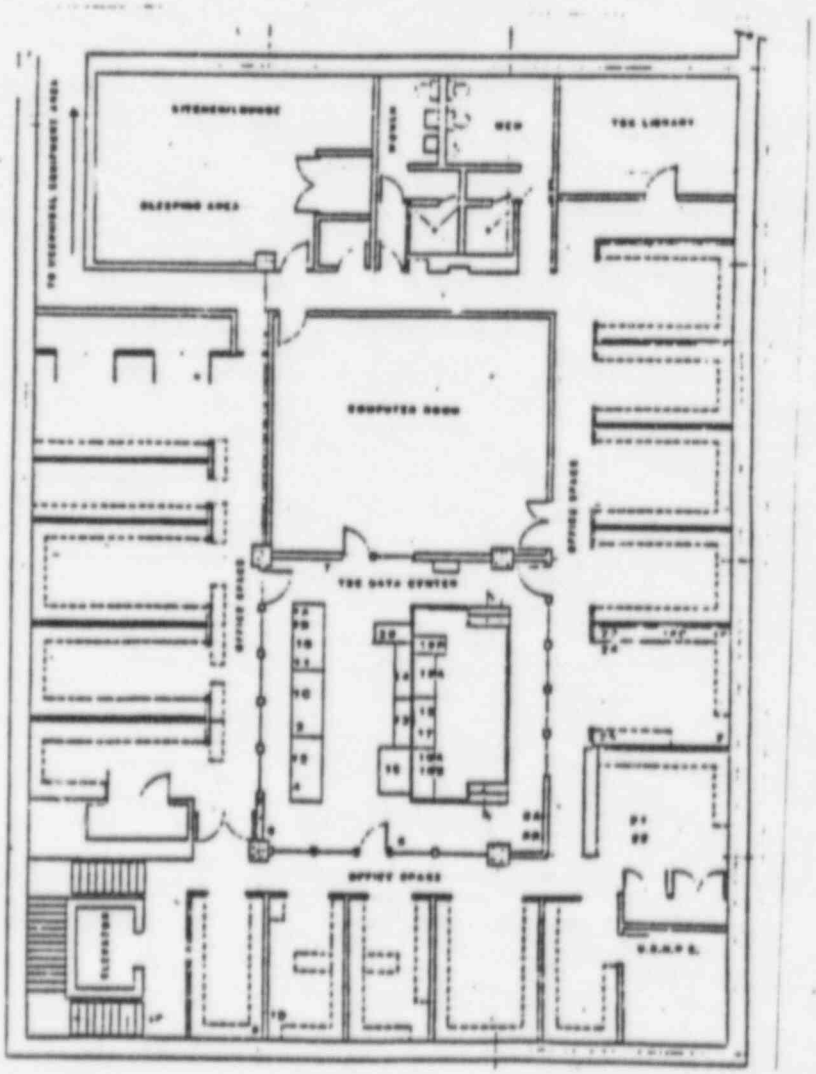
PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-11	APPENDIX T Page 1 of 1
TECHNICAL SUPPORT CENTER/SATELLITE TSC ACTIVATION	REVISION 5	Page 47 of 48

FLOORPLAN - TECHNICAL SUPPORT CENTER (TSC)
PALO VERDE NUCLEAR GENERATING STATION (PVNGS)



PV216-00DA (8/82)

TSC EQUIPMENT LAYOUT



1 A-E - ERFDADS Terminals
2 - ERFDADS Printers
3 - IBM Computer
4 - ANPP Radio
5 - REMS Terminal
6 - REMS Terminal
7 - TSC Emergency Kit
8 A-B - TSC Activation Cabinet
9 - Auto Dialer Terminal
10 - Environmental Assmt. Line
11 - Radiological Assmt. Line
12 - Weather Alert Radio
13 - Maintenance Control Line
14 - OSC Line
15 - Map Table
16 A-C -Technical Line
17 - Control Room Line
18 - STSC Line
19 A,B - EC/EOD Line
20 - ENS Phone
21 - High Speed Telecopier
22 - Dedicated Telecopier
23 - NAN
24 - OPS Voice Lines 1-4
25 - EOF Line

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-12	
OPERATIONS SUPPORT CENTER ACTIVATION	REVISION 5	Page 1 of 16

ASSIGNED COPY
PVNGS #8-9R

DEPT. HEAD Harry F. Bird for Dennis Ybarra DATE 12/4/85

PRB/PRG/TRRG REVIEW [illegible] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1666A/0196A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-12	
OPERATIONS SUPPORT CENTER ACTIVATION	REVISION 5	Page 2 of 16

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
4	11-11-85	3,4,5,7,8,12, 15,16	To incorporate PCN #01 of Rev. 3 and to add a new checklist for the Repair Coord.
5	01/15/86	3,4,5,7,8,10, 11,12,13,15, 16	Deleted Checklists Appendices A and C

TABLE OF CONTENTS

APPENDICES

5

CONTROLLED DOCUMENT

1.0 OBJECTIVE

This procedure provides instructions for the activation of the Operations Support Center (OSC) and alternate OSC (Service Building).

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-04, "ALERT Implementing Actions"

2.1.2 EPIP-05, "SITE AREA EMERGENCY Implementing Actions"

2.1.3 EPIP-06, "GENERAL EMERGENCY Implementing Actions"

2.1.4 EPIP-18, "Emergency Exposure Guidelines"

2.1.5 EPIP-20, "Personnel Assembly and Accountability"

2.1.6 EPIP-21, "Search and Rescue"

2.1.7 EPIP-25, "Reentry for Emergency Operations"

2.1.8 EPIP-29, "Area/Equipment Monitoring and Decontamination"

2.1.9 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG 0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.2.2 NUREG 0696, Feb. 1981, "Functional Criteria for Emergency Response Facilities."

2.2.3 PVNGS Emergency Plan, Rev. 6.

2.2.4 10CFR20, "Standards for Protection Against Radiation," 1983.

2.2.5 ANSI N45.2.9 - 1974, "Requirements For Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants."

CONTROLLED DOCUMENT

3.0 LIMITATIONS AND PRECAUTIONS

NOTE

In the onshift emergency organization, the Radiation Protection Monitor at the STSC determines the need to relocate the OSC staff and so informs the Emergency Coordinator.

3.1 Appendix B lists the habitability criteria established for the OSC. Habitability checks shall be conducted upon initial manning and as required thereafter. The results of the survey are to be transmitted to the Emergency Coordinator, via the Radiological Protection Coordinator, who determines the need to relocate personnel to the alternate OSC (Service Building).

3.2 If the Service Building is also uninhabitable, the Emergency Coordinator shall direct OSC personnel to report to one of the protected facilities (Control Room/Satellite Technical Support Center, Technical Support Center or Emergency Operations Facility).

3.3 At a NOTIFICATION OF UNUSUAL EVENT the OSC is partially activated to provide manpower resources for Emergency Teams, (e.g., Search and Rescue, Emergency Repair). If the E.C./S.S. determines the OSC is not required to support the emergency response during a NOTIFICATION OF UNUSUAL EVENT classification, he may deactivate the OSC and allow the response personnel to return to their normal work stations.

3.4 Requests for teams to be dispatched shall be channeled through E.C./S.S in the Onshift Emergency Organization or the Emergency Maintenance Coordinator in the Onsite Emergency Organization.

3.5 The OSC Coordinator and Repairs Coordinator shall forward his checklist and other written documentation along with any OSC team checklist and other written documentation to the Emergency Planning Group after event termination for forwarding to DDC in accordance with 9N219.05.00, "Document/Record Turnover Control."

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 The OSC is the assembly and staging area for unit/station personnel pooled for emergency response assignments. Designated emergency response personnel shall report to the OSC if not specifically assigned to a particular emergency position.

4.1.2 The OSC Coordinator is responsible for:

(1) Activating the OSC.

(2) Organizing emergency personnel who report to the OSC.

(3) Ensuring emergency personnel are available for dispatch.

(4) Maintaining a communications link with the Emergency Maintenance Coordinator.

4.1.3 The function of the OSC remains the same for an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY classification. Personnel/equipment augmentation may vary according to specific circumstances.

4.1.4 The OSC emergency positions and personnel primarily responsible for them include:

(1) OSC Coordinator -I&C Shift Maintenance Personnel.

(2) Field Monitoring Teams and Radiological Surveys (in plant/onsite/offsite) - Radiation Protection Personnel.

(3) Radiation Protection Teams (Personnel Monitoring/ Dosimetry/Decontamination/Access Control/Reentry Control) - Radiation Protection Personnel.

(4) Repair Teams (Maintenance/Repair/Damage Control) - Maintenance Staff.

(5) Chemistry Sampling/Analysis - Chemistry Personnel.

(6) Search and Rescue Teams/First-Aid Teams - Designated personnel with appropriate training.

(7) Fire Team - Designated personnel with appropriate training.

CONTROLLED DOCUMENT

4.1.5 Repairs Coordinator - Mechanical Shift Maintenance Foreman (Onsite Emergency Organization) is responsible for:

(1) Ensuring Emergency Repair Teams are properly briefed and dispatched.

(2) Coordinating the needs and requirements of Emergency Repair Teams in the field.

(3) Maintaining communications with both the Emergency Maintenance Coordinator and the Emergency Repair Teams.

(4) Assisting the OSC Coordinator with the direction of the OSC as determined by the OSC Coordinator.

4.1.6 The primary OSC is located in the lunchroom of the affected unit's Auxiliary Building.

4.1.7 The OSC is equipped with dedicated telephone lines for communication with the TSC, Control Room, STSC and EOF.

4.1.8 The alternate OSC is located in the Service Building. OSC personnel shall relocate to this area if the Emergency Coordinator determines that this action is necessary.

4.1.9 Emergency radiological monitoring equipment, first aid supplies, decontamination supplies, protective clothing, protective breathing apparatus, field communications equipment, and portable lighting are stored in or adjacent to the OSC.

4.2 Prerequisites

4.2.1 An ALERT or more severe emergency has been declared and EPIP-04, "ALERT Implementing Actions," EPIP-05, "SITE AREA EMERGENCY Implementing Actions," or EPIP-06, "GENERAL EMERGENCY Implementing Actions," is being implemented.

4.3 Instructions

4.3.1 Activation of the Primary OSC

4.3.1.1 The I&C Shift Maintenance Foreman shall report to the affected unit OSC as per Appendix A, "OSC Coordinator (Onshift and Onsite) Response"

4.3.1.2 The following personnel shall report to the OSC and follow the directions of the OSC Coordinator:

(1) Maintenance Staff

(2) Radiation Protection Personnel

(3) Chemistry Personnel

(4) Computer Personnel

4.3.1.3 The OSC Coordinator shall direct onshift Radiation Protection, Chemistry and Maintenance Technicians to contact their immediate Supervisor and discuss the emergency situation including any additional manpower (Technicians) that is required.

4.3.1.4 The OSC Coordinator shall direct Radiation Protection personnel to establish a radiological control point to maintain the cleanliness of the OSC.

4.3.1.5 If any additional manpower is required, the OSC Coordinator shall call Security at ext. [redacted] in the Onshift Emergency Organization or the Personnel Resources Coordinator at the TSC in the Onsite Emergency Organization. Request the required technicians be manually notified to report to the OSC or as otherwise directed.

4.3.1.6 The Mechanical Maintenance Shift Foreman shall report to the affected unit OSC as per Appendix C, "Repairs Coordinator Response." 5

4.3.2 Activation of the Alternate OSC

4.3.2.1 In the event the primary OSC becomes uninhabitable (see Appendix B for habitability criteria), the Emergency Coordinator shall direct OSC personnel to evacuate/report to the alternate OSC (i.e., Service Building).

4.3.2.2 The OSC Coordinator shall ensure the transport of emergency equipment, including decontamination supplies, necessary to establish the alternate OSC.

4.3.2.3 In the event the alternate OSC becomes uninhabitable (see Appendix B for habitability criteria), OSC personnel shall report to one of the protected facilities (i.e., Control Room/Satellite Technical Support Center, Technical Support Center, Emergency Operations Facility) per the Emergency Coordinator's direction.

OSC COORDINATOR (ONSHIFT AND ONSITE)
RESPONSE

POSITION FILLED BY: (1) I & C Shift Maintenance Personnel

RESPONSIBILITY: Activate OSC. Coordinate, assemble and dispatch manpower and equipment resources available at OSC. Serve as OSC Assembly Area Supervisor.

IMMEDIATE ACTIONS

1. Report to OSC upon notification.

2. Ensure that communication devices are operable.

NOTE

Personnel accountability is at the Shift Supervisor/Emergency Coordinator's discretion at an ALERT. It is mandatory at Site Area Emergency or higher.

3. Conduct personnel accountability per EPIP-20, "Personnel Assembly and Accountability."

   (1) Obtain badge numbers and names of emergency personnel reporting to OSC and complete Individual Accountability Sheet.

   (2) Inform Security Director of accountability within 20 minutes of initiation of signal.

4. Ensure that OSC emergency equipment and supplies are available and in a state of readiness.

5. Ensure that OSC reporting personnel have signed in on the OSC Staffing Board.

6. Direct Radiation Protection, Chemistry, and Maintenance Technicians to contact their immediate Supervisors and discuss the emergency situation including any additional manpower requirements.

7. Ensure that a radiological control point is established to maintain cleanliness of the OSC.

8. Report OSC readiness to Emergency Coordinator at STSC/CR (Onshift) using a dedicated phone line or at the TSC (Onsite) using the TSC dedicated phone line.

SUBSEQUENT ACTIONS

ALTERNATE OSC

9. If the primary OSC is uninhabitable, relocate OSC staff and necessary equipment to the alternate OSC, as directed by the Emergency Coordinator.

   (1) Service Building is the first alternate.

   (2) If the Service Building is also uninhabitable, relocate to one of the protected facilities (i.e., STSC/CR, TSC, EOF).

SEARCH AND RESCUE

10. Upon direction from Emergency Maintenance Coordinator, form Search and Rescue Team(s) per EPIP-21, "Search and Rescue."

    (1) Each team consists of 2 members.

    (2) Assign one member as Team Leader.

11. Obtain information from the Emergency Coordinator concerning identification and location of missing persons.

12. Provide Team(s) with search and rescue data:

    (1) I.D. of missing person(s).

    (2) Last known location (check REP if one was issued).

    (3) Job the individual was working.

    (4) Pertinent details of plant status.

13. Determine radiation levels and stay times with Radiation Protection Monitor (STSC) using the Radiological line or with Radiological Protection Coordinator (TSC, when activated) also using the Radiological line.

14. Inform the Team(s) of radiation exposure limits, if necessary, in accordance with EPIP-18, "Emergency Exposure Guidelines."

15. Direct Team(s) to notify Hazards Control Coordinator byradio (at TSC when activated) of location and/or removal of missing personnel.

16. Recall Team via radio when search and rescue operations are no longer necessary.

17. Inform the Hazards Control Coordinator at the TSC using the TSC dedicated phone line when Team has concluded its activities and returned to OSC.

RE-ENTRY FOR EMERGENCY OPERATIONS

18. Direct the Repairs Coordinator to Deploy Emergency Repair Teams, per EPIP-25, "Re-entry for Emergency Operations," upon direction from Control Room (Onshift) or the Emergency Maintenance Cordinator in the TSC (Onsite).

AREA/EQUIPMENT MONITORING AND DECONTAMINATION

19. Deploy Decontamination Teams, per EPIP-29, "Area/Equipment Monitoring and Decontamination," upon guidance from Control Room (Onshift) or the Emergency Maintenance Coordinator in the TSC (Onsite).

    (1) Team shall consist of one Radiation Protection Technician and necessary Chemical, Mechanical, Electrical, or I & C Technicians.

PERSONNEL

*20. Coordinate OSC personnel requirements with the Personnel Resources Coordinator at the TSC, using the TSC dedicated phone line.

---

* Continuing Activity

5

LOG

*21. Maintain an Emergency Action Log throughout emergency.

---

* Continuing Activity

CONTROLLED DOCUMENT

OSC HABITABILITY CRITERIA

The following limits should be considered upper limit habitability criteria.

WHOLE BODY DOSE RATE	AIRBORNE ACTIVITY CONCENTRATION[1]	CONSIDER EVACUATION WITHIN
2-10 mrem/hour	1-4 x MPC	48 hours
10-50 mrem/hour	4-20 x MPC	10 hours
50-100 mrem/hour	20-40 x MPC	5 hours
100-500 mrem/hour	40-200 x MPC	1 hour
> 500 mrem/hour	> 200 x MPC	Immediately

[1] Where MPC is the maximum permissible concentration for areas as defined in Column 1, Table I, Appendix B to 10CFR20. This calculation will allow 200 MPC hours which conservatively limits internal exposure. This criteria is based on personnel not wearing respiratory equipment.

5

REPAIRS COORDINATOR RESPONSE

POSITION FILLED BY: Mechanical Shift Maintenance Foreman.

RESPONSIBILITY: Ensures that Maintenance Technicians and Emergency Repair Teams are dispatched at the direction of the Emergency Maintenance Coordinator.

IMMEDIATE ACTIONS:

1. Report to the OSC upon notification and sign in.

2. Assist OSC Coordinator with OSC activation as required.

3. Establish communications with the Emergency Maintenance Coordinator when TSC is activated.

SUBSEQUENT ACTIONS

4. Deploy Emergency Repair Teams, per EPIP-25, "Re-entry for Emergency Operations," upon direction from Control Room (Onshift) or the Emergency Maintenance Coordinator in the TSC (Onsite) or OSC Coordinator.

   (1) Team shall consist of at least two Maintenance Technicians and, if radiological conditions necessitate, assign a Radiation Protection Technician to the team.

   (2) Designate one member the Team Leader.

5

REPAIRS COORDINATOR RESPONSE

5. Receive information from Emergency Coordinator, Emergency Maintenance Coordinator and/or Radiological Protection Coordinator on:

   (1) Work to be performed.

   (2) Number or people required.

   (3) Equipment needed.

   (4) Radiation conditions, if known.

*6. Receive 1/2 hour reports from Team Leader via portable radio.

*7. Receive report from Team Leader upon leaving if task cannot be completed in allotted stay time or allotted dose.

*8. Maintain an Emergency Action Log throughout the emergency.

---

*Continuing Activity

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 1 of 50

DEPT. HEAD Harry F. Bieling for Davis Tocco DATE 12/4/85

PRB/PRG/TRRG REVIEW [illegible] DATE 1/2/86

APPROVED BY [illegible] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1765A/0295A

PV216-00DA (8/82)

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 2 of 50

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	05-01-85	All	Total Revision Incorporating EPIP's 39-52
4	09-18-85	5, 6, 13, 14, 15, 17, 22, 23, 24, 45	Incorporation of procedure drill comments. New phone numbers and editorial changes.
5	01-15-86		Deleted Checklists.

5

TABLE OF CONTENTS

APPENDICES

CONTROLLED DOCUMENT

5

TABLE OF CONTENTS

APPENDICES (CONT'D.)

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 To provide instructions for the activation of the Emergency Operations Facility (EOF).

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-04, "ALERT Implementing Action"

2.1.2 EPIP-05, "SITE AREA EMERGENCY Implementing Actions"

2.1.3 EPIP-06, "GENERAL EMERGENCY Implementing Actions"

2.1.4 EPIP-14A, "Release Rate Determination"

2.1.5 EPIP-14B, "Initial Dose Assessment"

2.1.6 EPIP-14C, "Continuing Dose Assessment"

2.1.7 EPIP-31, "Recovery"

2.1.8 EPIP-33, "Offsite Assistance"

2.1.9 9N219.05.00, "Document Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

2.2.2 NUREG 0696, Feb. 1981, "Functional Criteria for Emergency Response Facilities."

2.2.3 PVNGS Emergency Plan, Rev. 6.

2.2.4 ANSI N45.2.9 - 1974, "Requirements for the Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants."

CONTROLLED DOCUMENT

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Activation of the EOF should be completed within the time augmentation goals as set forth in the PVNGS Emergency Plan.

3.2 Each individual in the EOF upon event termination shall submit any written documentation to the Emergency Operations Director who ensures they are forwarded to Emergency Planning Dept. for storage in accordance with 9N219.05.00, "Document Record/ Turnover Control."

3.3 The EOF may be used by designated personnel for normal daily activities as well as for training and emergency drills. Use of this facility shall be limited to activities that will not degrade preparedness to react to abnormal conditions or reduce system(s) reliability. This use should be reviewed by the Site Emergency Planning Supervisor.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 The EOF is the focal point for coordination of onsite and offsite emergency response activities. Management and technical personnel assigned to the EOF are responsible for protective action recommendations, liaison with offsite governmental organizations and response facilities, and overall management of the PVNGS emergency organization.

4.1.2 During an ALERT, or more severe accident, overall command and coordination of ANPP emergency operations shall be exercised by the Emergency Operations Director at the EOF. He shall provide direction and support for inplant emergency response actions to the Emergency Coordinator, and coordinate corporate support through the CEC. In addition, he shall communicate plant status updates and radiological release data to the Joint ENC and the CEC.

4.1.3 Functional assignments at the EOF, in addition to those of the Emergency Operations Director are:

4.1.3.1 Radiological Analysis

Receive and evaluate source-term, release and meteorological information from the TSC. Interface with ARRA representatives to recommend protective action(s) for the population-at-risk.

4.1.3.2 Technical Liaison

Function as a primary interface with NRC/state/county personnel stationed in the EOF to provide updates on the status of the reactor and unit.

4.1.3.3 Administrative and Logistics Support

Provide needed technical documents, communications and analytical equipment, clerical assistance, transportation/housing support and security for EOF.

4.1.3.4 Public Information Support

Gather necessary information and transmit for subsequent release to the media from the Joint ENC.

4.1.4 The EOF shall be activated and manned for an ALERT or more severe emergency classification.

4.2 Prerequisites

4.2.1 An ALERT or more severe level emergency has been declared and procedure EPIP-04, "ALERT Implementing Actions," EPIP-05, "SITE AREA EMERGENCY Implementing Actions," or EPIP-06, "GENERAL EMERGENCY Implementing Actions" is being implemented.

4.3 Instructions

4.3.1 Activation of the EOF

4.3.1.1 The Security Director shall assign a Security Force Member to the EOF to lock the door by stairway #2. The Security Force Member shall then station himself inside the Annex Building basement air lock to restrict entrance into the EOF only to authorized personnel as per Appendix P.

NOTE

Each individual listed is responsible for set up of their working area of the EOF. This includes phone hook-up (if necessary) and breaking out from the storage closet all required material to function properly.

4.3.1.2 The following Offsite Emergency Organization personnel shall report to the EOF:

(1) Emergency Operations Director - Appendix C, "Emergency Operations Director Response."

(2) Administration and Logistics Coordinator - Appendix D, "Administration and Logistics Coordinator Response."

(3) Radiological Assessment Coordinator - Appendix E, "Radiological Assessment Coordinator Response."

(4) Technical Analysis Coordinator - Appendix F, "Technical Analysis Coordinator Response."

(5) Radiological Assessment Communicator - Appendix G, "Radiological Assessment Communicator Response."

(6) Government Liaison Engineer - Appendix H, "Government Liaison Engineer Response."

(7) EOF Contact - Appendix I, "EOF Contact Response."

(8) Logistics Communicator - Appendix J, "Logistics Communicator Response."

(9) Security Coordinator - Appendix K, "Security Coordinator Response."

(10) Dosimetry Clerk - Appendix L, "Dosimetry Clerk Response and TLD Log."

(11) Clerical Aide/Status Board Keeper - Appendix M, "Clerical Aide/Status Board Keeper-EOF Response."

(12) R.P. Support Staff - To Be Filled By Training Personnel.

4.3.1.3 The Offsite Technical Representative shall report to the Technical Operations Center (TOC) at the State Emergency Operations Center (EOC) as per Appendix N.

4.3.1.4 The JENC Technical Advisor shall report to the Joint Emergency News Center as per Appendix O.

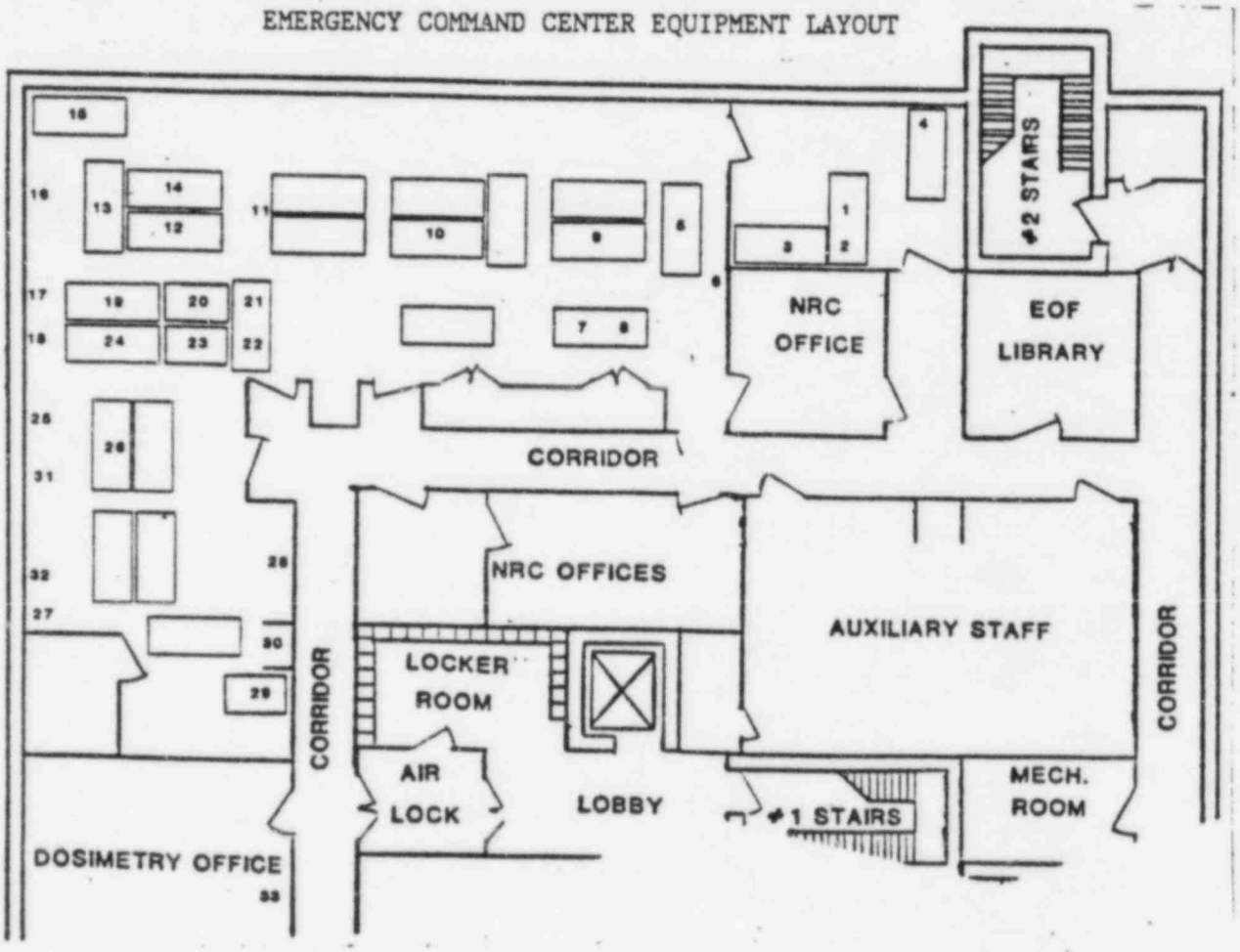
4.3.1.5 Appendices A, B and Q are provided to show EOF layout and floorplan.

4.3.2 Declaration of EOF Readiness

4.3.2.1 Upon completion of EOF staffing and readiness checks, the Emergency Operations Director shall contact the Emergency Coordinator, the Corporate Emergency Center (if activated) and the Joint Emergency News Center and inform them that the EOF is operational.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX A Page 1 of 1
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 10 of 50

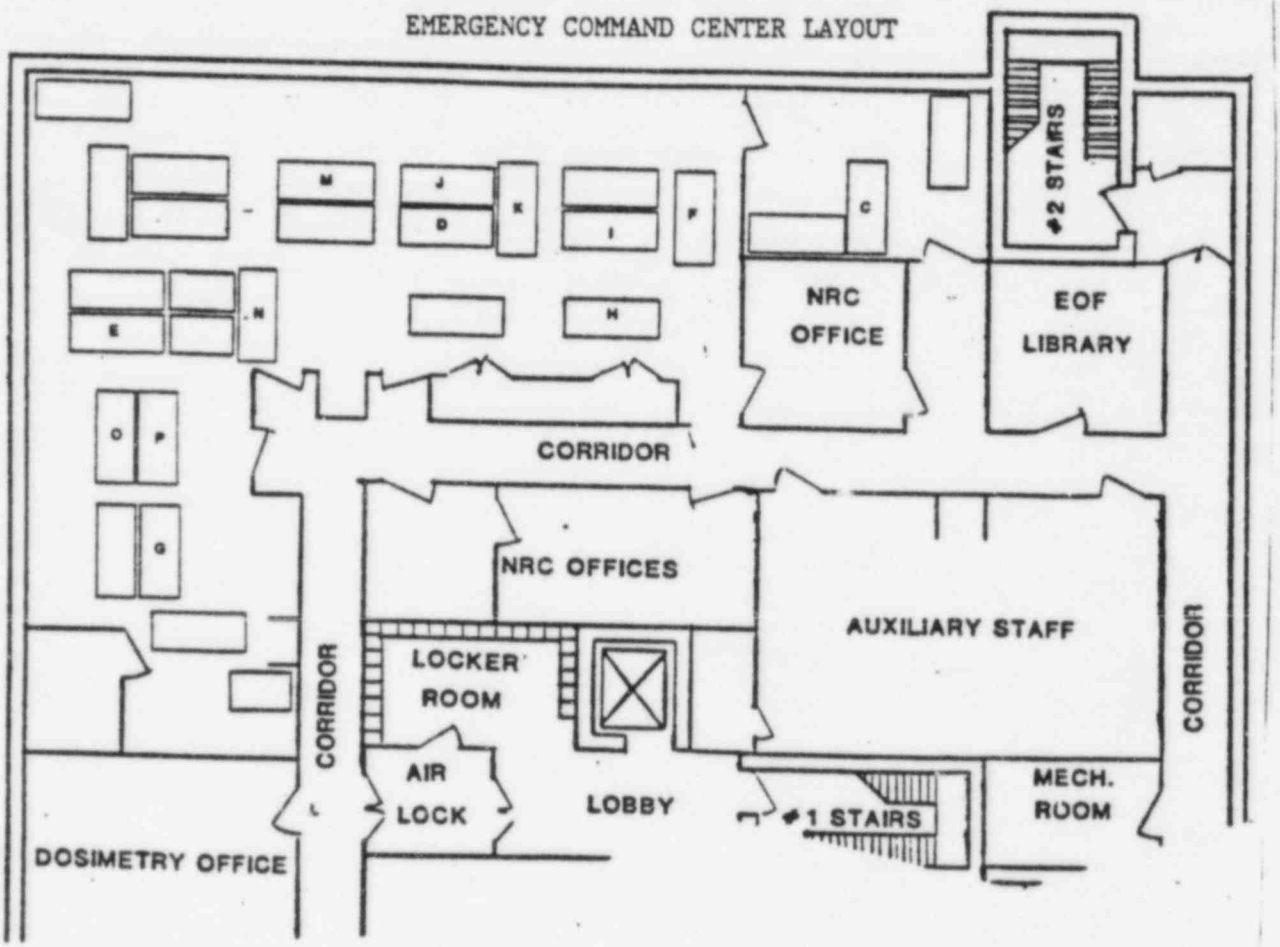
EMERGENCY COMMAND CENTER EQUIPMENT LAYOUT



1. EC/EOD Line
2. Ops. Voice #1
3. Exec. Pvt. Line
4. NOAA Weather Radio
5. Technical Line
6. ERFDADS Terminal
7. NAN
8. Ops. Voice #4
9. Public Info. #1
10. OSC Line
11. Copy Machine
12. High Speed Telecopier
13. Telecopier Circuit #1
14. Telecopier Circuit #2
15. SIMS/MMIS Computer
16. ERFDADS Printer
17. ERFDADS Terminal
18. CRACS
19. Env. Assmt. Line
20. IBM Computer
21. TSC Line
22. STSC Line
23. Map Table
24. Ops. Voice #3
25. State Radio
26. Ops. Voice #2
27. CR Line
28. High Speed Telecopier
29. ANPP Radio
30. EOF Emergency Kit
31. ERFDADS Terminal
32. ERFDADS Terminal
33. REMS Terminal

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX B Page 1 of 1
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 11 of 50

EMERGENCY COMMAND CENTER LAYOUT



C - Emergency Operations Director
D - Administrative and Logistics Coordinator
E - Radiological Assessment Coordinator
F - Technical Analysis Coordinator
G - Radiological Assessment Coordinator
H - Government Liaison Engineer
I - EOF Contact
J - Logistics Communicator
K - Security Coordinator
L - Dosimetry Clerk
M - Clerical Aide/Status Board Keeper
N - Radiological Support Staff
O - State of Arizona
P - Federal Emergency Management Agency

* No 'A' & 'B' designated. Letters C through M correspond to the position appendices of this procedure.

EMERGENCY OPERATIONS DIRECTOR (OFFSITE)
RESPONSE

POSITION FILLED BY: (1) Assistant Vice-President, Nuclear Production
(2) Manager, Operations
(3) Director, Technical Services

RESPONSIBILITY: Command and coordinate ANPP emergency operations. Maintain overall responsibility for ANPP onsite and offsite emergency functions. Interface between ANPP and federal/state/county emergency response agencies. Oversee the communication of plant status updates and radiological release data and the notification of state and local agencies concerning recommended protective actions. Provide administrative, technical, and logistical support to station emergency operations and ensure the continuity of emergency organization resources. Make appropriate exceptions to QA/QC and plant administrative procedures.

IMMEDIATE ACTIONS:

NOTE

All actions listed shall be noted in the EOD Log by the EOD or EOD Stenographer.

1. Report to the EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Contact Emergency Coordinator at TSC using Emergency Coordinator/Emergency Operations Director (EC/EOD) line and review:

   (1) Basis for classification of event.
   (2) Status of plant conditions.
   (3) Corrective actions being implemented.
   (4) Status of notifications to other ANPP offsite staff and offsite emergency management agencies.

3. Ensure that all the following positions are staffed. As necessary, assign temporary personnel to fill staff positions until primary personnel arrive.

(1) Radiological Assessment Coordinator
(2) Technical Analysis Coordinator
(3) EOF Contact
(4) Administrative and Logistics Coordinator
(5) Logistics Communicator
(6) Government Liason Engineer
(7) Security Coordinator
(8) Clerical Aide/Status Board Keeper
(9) Radiological Assessment Communicator
(10) Dosimetry Clerk
(11) Alternate EOD (to serve as an assistant if needed)

4. Conduct briefing with available EOF personnel. As a minimum, the following items should be discussed:

   (1) Adequacy of activation.
   (2) Ability of assigned personnel to assume their emergency duty roles.
   (3) Operability of equipment.

5. Notify the Emergency Coordinator at the TSC using EC/EOD line, the Corporate Emergency Director at the CEC using the Executive Private Ringdown circuit and ADES (TOC) using OPS voice circuit Number 1 that:

   (1) EOF is operational

   (2) Current plant status

   (3) Recommended protective actions

6. Make Site Wide Public Address Announcement that the EOF is operational or delegate this to the ALC.

7. Ensure EOF contact notifies the Joint Emergency News Center (JENC) that:

   (1) The EOF is operational.

   (2) The EOD has assumed control and responsibility for offsite communications.

*8. As appropriate, make exceptions to QA/QC and plant administrative procedures.

CONTROLLED DOCUMENT

9. Ensure the following offsite agencies are contacted and notified by the GLE that the EOF is operational and the Emergency Operations Director is in command and has offsite communications responsibilities.

   (1) Arizona Division of Emergency Services (using dedicated voice circuit).

   (2) Arizona Radiation Regulatory Agency (using dedicated voice circuit).

   (3) Maricopa County Dept. of Civil Defense and Emergency Services (using dedicated voice circuit).

   (4) NRC Headquarters (using ENS).

10. Ensure the Followup Emergency Message Form is completed by the GLE in anticipation of next offsite update and recommendation of protective actions.

11. Provide initial briefing to federal and state staff at EOF.

*12. Brief EOF staff periodically using the EOF Public Address System.

13. As necessary, place EOF on recirculation.

14. If evacuation is ordered, receive from Emergency Coordinator total number of evacuees. _____
    Total

SUBSEQUENT ACTIONS:

Notification

*15. Review onsite actions and requirements periodically with the Emergency Coordinator.

*16. Communicate with Corporate Emergency Director and provide periodic status updates as necessary.

*17. Consult with EOF Staff as necessary.

18. Repeat steps 8 and 9 periodically as necessary and whenever the emergency class changes.

19. Upon downgrade or termination of Emergency Classification, notify PVNGS Compliance Dept. to provide a written summary to offsite authorities within eight hours.

Recovery

20. Do not inform JENC of downgrading, coordinate release of this information through the State EOC/TOC so that protective action recommendations may be considered.

21. Consult with Emergency Coordinator, NRC (in EOF), ADES and ARRA (in EOF); Declare the emergency over when the unit is in a controlled, stable condition; notify offsite agencies as in Step 8 and the ANPP emergency organization.

22. Collect all EOF personnel documentation and logs.
    (1) Technical Analysis Coordinator
    (2) EOF Contact
    (3) Radiological Assessment Coordinator
    (4) Administrative and Logistics Coordinator

23. Establish Recovery Organization and assume duties and responsibilities of Recovery Manager in accordance with EPIP-31, "Recovery."

24. Notify affected offsite Emergency Management Organizations using dedicated voice circuit systems that recovery operations are in progress.

---

* Continuing Activity

5

ADMINISTRATIVE AND LOGISTICS COORDINATOR
RESPONSE

POSITION FILLED BY:

(1) Manager, Operations Computer Systems

(2) Other Designated Personnel with appropriate training

RESPONSIBILITY: Calls in offsite resources and plans and provides logistical support for the onsite emergency organization. Logistical support includes provision of needed technical documents, additional communications and analytical equipment, additional security support, manpower support, transportation, housing and food needs. Acts as liaison to reporting support personnel and American Nuclear Insurers.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Receive initial briefing from Emergency Operations Director and establish responsible area.

3. Ensure that the following equipment is operational:

   (1) SPDS

   (2) CRACS

   (3) EOF RE&M Terminals

   (4) EOF SIMS Terminal

CONTROLLED DOCUMENT

5

ADMINISTRATIVE AND LOGISTICS COORDINATOR
RESPONSE (Cont.)

NOTE

The SIMS/MMIS Computer Staff reports to the Administrative and Logistics Coordinator and normally returns to the SIMS/MMIS data center. If the Annex Building is uninhabitable, they relocate to the EOF.

4. Ensure that the following positions are staffed and fully briefed:

   (1) Logistics Communicator.
   (2) Security Coordinator.
   (3) Clerical Aide/Status Boardkeeper
   (4) DDC Staff
   (5) SIMS/MMIS Computer Staff

5. Check that facilities available to Emergency Response Personnel are adequate.

NOTE

The SIMS/MMIS Computer Staff reports to the Administrative and Logistics Coordinator and normally returns to the SIMS/MMIS data center. If the Annex Building is uninhabitable, they relocate to the EOF.

6. Provide readiness briefing to Emergency Operations Director.

7. Maintain a log of actions as required.

8. If so directed by the EOD, make site wide P.A. Announcement that the EOF is operational.

SUBSEQUENT ACTIONS:

Offsite Assistance

*9. Contact support organizations listed in EPIP-33, "Offsite Assistance," to obtain necessary technical and/or additional manpower support (assume this function from Emergency Coordinator) using the commercial telephone line (see EPIP-33 for phone numbers).

ADMINISTRATIVE AND LOGISTICS COORDINATOR
RESPONSE (Cont.)

*10. Contact American Nuclear Insurers, using the commercial telephone line and keep ANI informed of situation as necessary (until relieved of this responsibility by the Corporate Financial Coordinator).

Logistical Support

*11. Obtain, as necessary, required:

(1) Technical documents
(2) Communication equipment
(3) Analytical equipment
(4) Manpower support
(5) Transportation support
(6) Housing and food for Emergency Response Personnel

*12. Assist Government staff with logistics as necessary.

Recovery

13. Receive any documentation and associated logs from the Logistics Communicator after emergency is terminated.

14. Receive any documentation and associated logs from the Security Director after emergency is terminated.

15. Receive any documentation and associated logs from the Clerical Aide/Status Board Keeper after the emergency is terminated.

16. Submit documentation, logs, and other data to Emergency Operations Director when emergency is cancelled.

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* Continuing Activity

5

RADIOLOGICAL ASSESSMENT COORDINATOR
RESPONSE

POSITION FILLED BY: (1) Manager, Radiation Protection & Chemistry
(2) Other Designated Personnel

RESPONSIBILITY: Principal liaison of the PVNGS emergency response organization with the Radiological Technical Directorate. Receive and evaluate dose rate projection information from the Radiological Protection Coordinator. Advise the Emergency Operations Director of protective action recommendations to be provided to offsite authorities. Coordinate offsite monitoring efforts. Direct the Radiological Assessment Communicator.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Receive initial briefing from Emergency Operations Director and establish responsible area.

3. Ensure that the Radiological Assessment Communicator's position is staffed and fully briefed and that communication systems are operational.

4. Ensure R.P. Support Staff is briefed and ready to perform dose projections.

*5. Access CRACS to receive current dose projection data. (If CRACS is available)

6. Ensure operational status of dose calculation computer

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* Continuing Activity

RADIOLOGICAL ASSESSMENT COORDINATOR
RESPONSE

7. Ensure that the following materials needed to perform manual dose assessments are available:

   (1) EPIP-14A, "Release Rate Determination"
   EPIP-14B, "Initial Dose Assessment"
   EPIP-14C, "Continuing Dose Assessment"
   (2) Isopleths
   (3) Base Map

8. Contact the Radiological Protection Coordinator at TSC using the Environmental Assessment line at ext[redacted] and determine:

   *(1) Extent and consequence of radiological releases and plant conditions.
   (2) Protective action recommendations made to date.
   (3) Potential for future radiological releases.
   *(4) Location of offsite field monitoring teams, when dispatched. (May also contact Radiation Protection Monitor for this information)

9. Maintain a log of actions as required.

SUBSEQUENT ACTIONS:

Dose Rate Projections

10. Analyze source term, meteorological and field monitoring data to determine reasonableness and consistency of data with dose projections used as basis for protective actions.

*11. Evaluate plant conditions to determine probability and magnitude of possible emission increases.

*12. Ensure Radiological Status Boards are updated as information becomes available.

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* Continuing Activity

CONTROLLED DOCUMENT

5

RADIOLOGICAL ASSESSMENT COORDINATOR
RESPONSE

Protective Actions

*13. Advise the Emergency Operations Director as to the need for protective actions.

*14. Provide updates to State of Arizona Representative concerning Protective Actions.

Field Monitoring

*15. Provide updates to the ARRA State Representative as necessary.

*16 Direct Radiological Assessment Communicator to position offsite field monitoring teams, as necessary

Recovery

17. Receive any documentation and associated logs from the Radiological Assessment Communicator after emergency is terminated.

18. Receive any documentation and associated logs from the Dosimetry Clerk after emergency is terminated.

19. Submit documentation, logs and other data to Emergency Operations Director when emergency is cancelled.

---

* Continuing Activity

CONTROLLED DOCUMENT

15

TECHNICAL ANALYSIS COORDINATOR (OFFSITE)
RESPONSE

POSITION FILLED BY: (1) Designated person from Shift Technical Advisor (STA) Group

(2) Other Designated Personnel

RESPONSIBILITY: Function as the primary interface with NRC/state/county personnel stationed in the EOF. Provide updates on the status of the reactor and unit. Supervise the GLE and OTR.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Receive initial briefing from Emergency Operations Director and establish responsible area.

3. Ensure that the following positions are staffed and fully briefed:

   (1) Government Liaison Engineer.
   (2) Offsite Technical Representative.

*4. Obtain information on plant status from TSC using the Technical line [redacted] or normal phone line.

*5. Brief Emergency Operations Director on operational status.

*6. Maintain a log of actions required.

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* Continuing Activity

CONTROLLED DOCUMENT

TECHNICAL ANALYSIS COORDINATOR (OFFSITE)
RESPONSE (Cont.)

SUBSEQUENT ACTIONS:

Technical Guidance

*7. Provide Emergency Operations Director with technical guidance on how plant status may impact offsite emergency response actions.

*8. Receive reports on technical changes and recommendations from the Technical Engineering Coordinator in the TSC.

Government Staffing at EOF

*9. Provide updates to NRC, state, and county personnel as necessary on the status of the reactor and unit; assisted by Government Liaison Engineer.

Public Information

*10. If so directed by the EOD, verify the technical accuracy and adequacy of all public information releases prior to dissemination to the news media.

---

* Continuing Activity

CONTROLLED DOCUMENT

5

TECHNICAL ANALYSIS COORDINATOR (OFFSITE)
RESPONSE (Cont.)

SUBSEQUENT ACTIONS:

Recovery

11. Receive any documentation and associated logs after emergency is terminated from
    (1) Government Liaison Engineer
    (2) Offsite Technical Representative

12. Submit documentation, logs and other data to Emergency Operations Director when emergency is cancelled.

15

RADIOLOGICAL ASSESSMENT COMMUNICATOR RESPONSE

POSITION FILLED BY: (1) Designated person from Radiation Protection Section with appropriate training.

(2) Other Designated Personnel

RESPONSIBILITY: Maintain a record of matters pertaining to radiological assessment. Maintain communications with radiological assessment personnel at the TSC and STSC.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Obtain initial briefing from Radiological Assessment Coordinator and establish responsible area.

3. Determine operability of following communications circuits:

   (1) Normal phone

   (2) Dedicated voice circuits

   (3) Environmental Assessment Line

   (4) Base station radio

4. Report inoperable circuits to Radiological Assessment Coordinator and Administrative and Logistics Coordinator.

*5. Establish and maintain communications with TSC and STSC Radiological Assessment personnel using the normal PBX phone line.

---

* Continuing Activity

5

RADIOLOGICAL ASSESSMENT COMMUNICATOR
RESPONSE (Continued)

SUBSEQUENT ACTIONS:

Radiological Assessment

*6 Direct offsite radiological field assessment teams to various sampling locations as requested by the Radiological Assessment Coordinator. Coordinate team movement with state and other agency teams as required.

*7. Plot reported dose rates and various team locations as an aid in plume tracking.

*8. Inform the Radiological Assessment Coordinator of changes in radiological status.

*9. Maintain records of communications concerning radiological assessment.

*10. Maintain a log of actions as required

Recovery

11. Submit any documents and logs to Radiological Assessment Coordinator when emergency is cancelled.

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* Continuing Activity

CONTROLLED DOCUMENT

5

GOVERNMENT LIAISON ENGINEER RESPONSE

POSITION FILLED BY: (1) Designated person from Nuclear Engineering or Licensing Department with appropriate training.

(2) Other Designated Personnel

RESPONSIBILITY: Relieve STSC Communicator of responsibility of making initial and subsequent notifications of changes in emergency classification to Federal, State and County Agencies. Assist Technical Analysis Coordinator with briefings of Government staff at EOF.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival sign in on the EOF Staffing Board.

2. Establish responsible area.

3. Receive initial briefing from Technical Analysis Coordinator.

4. Inform the STSC Communicator, using the normal phone line [redacted] that you are on station and assume the responsibility for offsite notifications of changes in emergency classification.

*5. Establish and maintain communications with offsite agencies, per EPIP-04, EPIP-05, or EPIP-06 and using Voice Circuit #4.

*6. Maintain log of communications per EPIP-04, EPIP-05, or EPIP-06.

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* Continuing Activity

CONTROLLED DOCUMENT

IMMEDIATE ACTIONS: (Cont'd)

7. Notify the FAA using commercial phone lines as necessary.

8. Notify the National Transportation Board using commercial phone lines as necessary.

*9. Maintain a log of actions as required.

SUBSEQUENT ACTIONS:

Government Staffing at EOF

*10. Assist Technical Analysis Coordinator with briefings of Government staff at EOF, as necessary.

Recovery

11. Provide termination of emergency announcement per EPIP-04, EPIP-05 or EPIP-06.

12. Submit any documentation, logs, and other data to Technical Analysis Coordinator when emergency is cancelled.

---

* Continuing Activity.

CONTROLLED DOCUMENT

5

EOF CONTACT RESPONSE

POSITION FILLED BY: (1) PVNGS Training Department Individual with Appropriate EOF Contact Training

(2) Other Designated Personnel

RESPONSIBILITY: Report significant changes in plant status to JENC Facility Manager for subsequent release to media. Maintain close contact with JENC Facility Manager.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Receive initial briefing from Emergency Operations Director.

*3. Establish and maintain communications with the CHIC Director until the Joint ENC is activated.

*4. Establish and maintain communications with the JENC Facility Manager at the Joint Emergency News Center using the Public Information Ringdown Phone Circuit [redacted]

5. Report readiness to Emergency Operations Director.

*6. Maintain a log at actions as required.

* Continuing Activity

EOF CONTACT RESPONSE

SUBSEQUENT ACTIONS:

Public Information

> CAUTION
>
> PROTECTIVE ACTIONS RECOMMENDED TO STATE AUTHORITIES BY ANPP SHALL NOT BE TRANSMITTED TO THE JENC.

*7. Assure that press releases are reviewed expeditiously at the EOF by the Emergency Operations Director (EOD).

8. Submit logs and other data to EOD when emergency is cancelled.

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* Continuing Activity

CONTROLLED DOCUMENT

EOF CONTACT INFO SHEET

THIS IS/IS NOT A DRILL
Telecopy to JENC/CHIC

DATE _____ TIME _____ SERIAL # _____

1. EVENT CLASSIFICATION:
   a. UNUSUAL EVENT ALERT SITE AREA EMERGENCY GENERAL EMERGENCY.
   b. Basis (E A L) c. Release (YES / NO)
      Wind: _____ / _____ / _____
      Speed From Stability
   c. Initiating Event: _____
      1) Basis for event classification: _____
      _____

2. EMERGENCY FACILITY ACTIVATION:
   a. STSC/TSC (YES / NO) b. EOF (YES / NO) c. OSC (YES / NO)
   d. Accountability; Plant Evacuation:
      Ordered: (YES / NO) Complete: (YES / NO)
      Missing People: (YES / NO) Search Ordered: (YES / NO)
      e. Injuries (YES / NO) Contamination: (YES / NO)

3. PLANT STATUS:
   Criticality: _____ Rod Position: _____ Boron: _____
   Power: _____ Hot Leg Temp: _____ T ave: _____
   RCS Pressure: _____ Vessel Level: _____ CTMT Pressure: _____
   CTMT Humidity: _____ Temp: _____ CTMT Dose Rate: _____
   CTMT Water Level: _____ Sub Cool Margin: _____ SI Flow: _____
   Pressurizer Level: _____ RWT Level: _____

4. EQUIPMENT STATUS:
   RCS Pumps: _____ Turbine: _____ Diesels: _____ Charging Pumps: _____
   Safety Injection - HPSI: A _____ B _____ LPSI: A _____ B _____
   CTMT Spray: A _____ B _____ CTMT Isolation: _____

5 RADIOLOGICAL STATUS:
   Value: _____ Instrument Type: _____
   Meaning: _____
   _____
   _____
   _____

CONTROLLED DOCUMENT

5

LOGISTICS COMMUNICATOR
RESPONSE

POSITION FILLED BY: (1) Designated person from Materials Control Section with appropriate training

(2) Other Designated Personnel

RESPONSIBILITY: Maintain record of logistics support needed and obtained. Contact offsite support organizations to obtain needed support at direction of Administrative and Logistics Coordinator.

IMMEDIATE ACTIONS:

1. Report to the EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.
2. Receive initial briefing from the Administrative and Logistics Coordinator. Establish responsible area.
3. Ensure all EOF communications equipment is operational with assistance of Radiological Assessment Communicator.
4. Synchronize EOF clocks with affected unit control room clock.
5. Establish and maintain a record of logistic support obtained and required.
6. Report readiness to Administrative and Logistics Coordinator.

*7. Maintain an action log as required.

SUBSEQUENT ACTIONS:

Offsite Assistance

*8. Contact offsite support organizations per EPIP-33, "Offsite Assistance," at direction of Administrative and Logistics Coordinator.

CONTROLLED DOCUMENT

15

LOGISTICS COMMUNICATOR
RESPONSE

Recovery

9. Submit any documentation and records to Administrative and Logistics Coordinator upon cancellation of emergency.

---

* Continuing Activity

CONTROLLED DOCUMENT

5

SECURITY COORDINATOR RESPONSE

POSITION FILLED BY: (1) Designated person from Security Department with appropriate training.

(2) Other Designated Personnel

RESPONSIBILITY: Maintain communications with Security Director regarding offsite personnel required onsite. Process personnel necessary for site support prior to site entry.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Receive initial briefing from Administrative and Logistics Coordinator and establish responsible area.

3. Contact Security Director at TSC using the normal phone at ext. [redacted] or alternate (the security radio frequency) to determine present site access conditions.

4. Inform the Administrative and Logistics Coordinator of site security conditions and report readiness.

*5. Maintain action log as required.

SUBSEQUENT ACTIONS:

Security/Site Access

6. Inform the Security Director at TSC using the normal phone or alternate (the security radio frequency), of offsite personnel required onsite to expedite badging process.

*7. Maintain communications with the Security Director at TSC using the normal phone line regarding personnel granted access to site.

*8. Process personnel necessary for site support prior to site entry per appropriate security procedures.

CONTROLLED DOCUMENT

SECURITY COORDINATOR RESPONSE

Recovery

9. Submit any documentation and logs to the Administrative and Logistics Coordinator upon cancellation of emergency.

---

* Continuing Activity

CONTROLLED DOCUMENT

5

DOSIMETRY CLERK
RESPONSE AND TLD LOG

POSITION FILLED BY: (1) Designated person from Radiation Protection Section with appropriate training

(2) Other Designated Personnel

REPONSIBILITY: Provide proper dosimetry and TLDs, as necessary, to EOF personnel, support personnel reporting to site assignment, and site personnel. Maintain dosimetry issuance records. Perform habitability surveys of the EOF.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.

2. Receive initial briefing from the Radiological Assessment Coordinator and establish responsible area.

3. Obtain emergency dosimetry from EOF emergency locker in preparation for distribution.

4. Report readiness to the Radiological Assessment Coordinator.

*5. Maintain action log as required.

SUBSEQUENT ACTIONS:

6. Provide dosimetry and TLDs, as necessary, to the following:

   (1) EOF personnel.
   (2) Support personnel reporting for site assignment.
   (3) Site personnel.

*7. Maintain dosimetry issuance records.

*8. Report need for additional dosimetry to the Radiological Assessment Coordinator.

CONTROLLED DOCUMENT

15

DOSIMETRY CLERK
RESPONSE AND TLD LOG (Cont'd)

SUBSEQUENT ACTIONS:

*9. As required perform habitability surveys of the EOF.

10. Submit any documentation and dosimetry issuance records to the Radiological Assessment Coordinator upon cancellation of emergency.

---

* Continuing Activity

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX L Page 3 of 3
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 38 of 50

DOSIMETRY CLERK
RESPONSE AND TLD LOG (Cont'd)

EMERGENCY PLAN TLD LOG

NAME	Employee No. or Company	TLD No.	ISSUE DATE

5

CLERICAL AIDE/STATUS BOARD KEEPER-EOF RESPONSE & STATUS BOARDS

POSITION FILLED BY: (1) Designated person with appropriate training.

RESPONSIBILITY: Maintain record of emergency actions taken by ANPP Emergency Organization on Status Boards. Record status of emergency.

IMMEDIATE ACTIONS:

1. Report to EOF upon notification. Upon arrival, sign in on the EOF Staffing Board.
2. Receive briefing from Administrative and Logistic Coordinator and establish responsible area.
3. Report readiness to Administrative and Logistics Coordinator.

SUBSEQUENT ACTIONS:

Status Board

*4. Record status of emergency as expressed by Technical Analysis Coordinator or Radiological Assessment Coordinator.

NOTE

Ensure time recorded on status boards is event time rather than posting time.

Recovery

5. Submit any documentation to Administrative and Logistics Coordinator upon cancellation of emergency.

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* Continuing activity

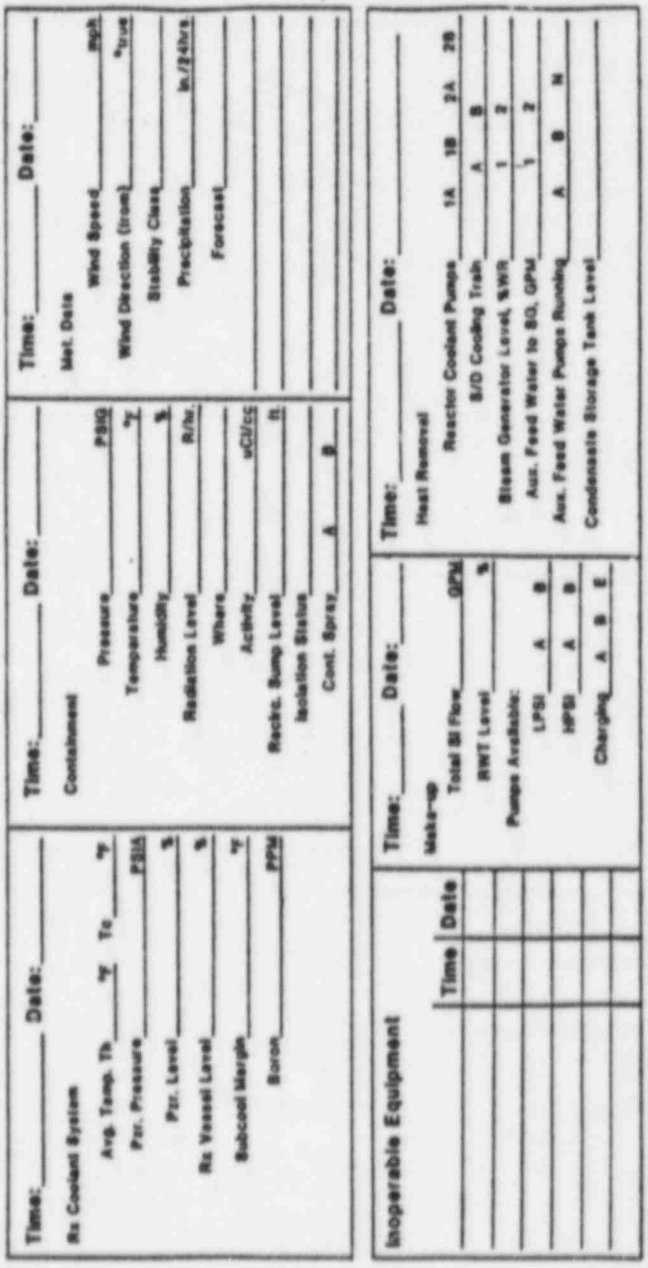
CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX M Page 2 of 6
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 40 of 50

CLERICAL AIDE/STATUS BOARD KEEPER-EOF
RESPONSE & STATUS BOARDS

EVENT STATUS

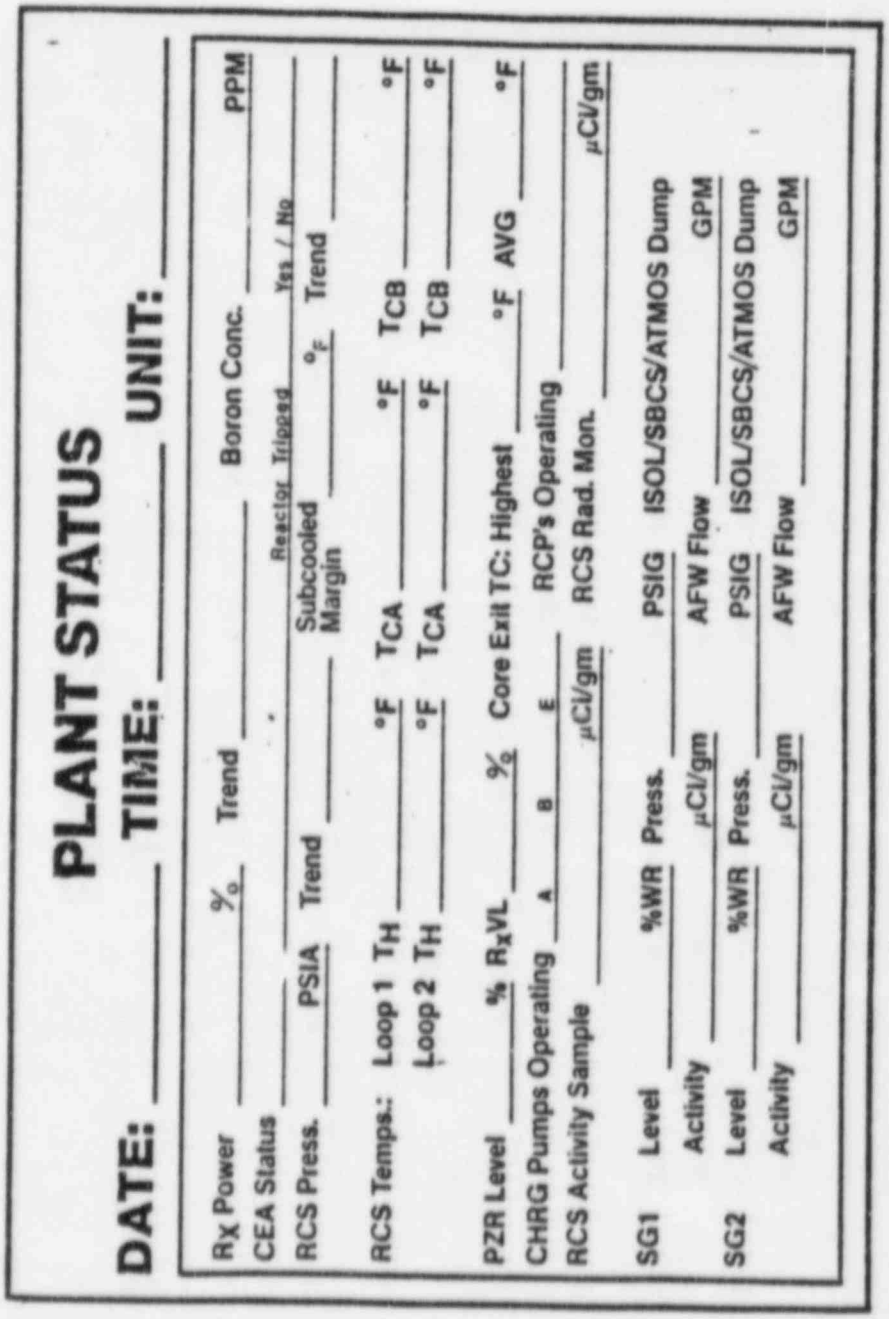
UNIT:_____ EMERGENCY CLASS:_____ TIME:_____



PV216-000A (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX M Page 3 of 6
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 41 of 50

CLERICAL AIDE/STATUS BOARD KEEPER-EOF
RESPONSE & STATUS BOARDS



PV216-000A (8/82)

CLERICAL AIDE/STATUS BOARD KEEPER-EOF
RESPONSE & STATUS BOARDS

SI: SDC _____ Cold Leg Inj. _____ RAS _____ Hot/Cold Inj. _____

HPSI Cold Leg Flow GPM 1A _____ 1B _____ 2A _____ 2B _____

HPSI Hot Leg Flow GPM 1 _____ 2 _____

LPSI Cold Leg Flow GPM 1 _____ 2 _____

SITS (Level/Outlet Valve) 1A ___/___ 1B ___/___ 2A ___/___ 2B ___/___
(% inf / open-closed)

CTMT: Press. _____ PSIG Temp. _____ °F Temp. Trend _____ °F/HR

CIAS ____Yes/No____ CSAS ____Yes/No____ Total CS Flow _____ GPM

Radwaste Sump Level A _____ IN B _____ IN

Recirc. Sump Levels A _____ FT B _____ FT

H_2 Conc. _____ % Humidity _____

H_2 Recombiners _____

H_2 Purge Unit _____ CTMT Rad. Mon. _____

AFW Pumps On _____ CST Level _____ FT

PBA SO3 On _____ PBB SO4 On _____

DG's Operating _____ Offsite Power Avail. _____

Estimated Prim/Sec Leakrate _____ GPM

PV216-000A (8/82)

CLERICAL AIDE/STATUS BOARD KEEPER-EOF
RESPONSE & STATUS BOARDS

SOURCE-TERM STATUS AND TRENDS

Monitor	Channel	Reading / Time	Reading / Time	Reading / Time	Reading / Time	Reading / Time	Reading / Time	Reading / Time
Containment Atmosphere	Part. μCi/cc							
	Iodine μCi/cc							
	Gas μCi/cc							
Plant Vent	Part. μCi/cc							
	Iodine μCi/cc							
	Gas μCi/cc							
Fuel Bldg. Exhaust	Part. μCi/cc							
	Iodine μCi/cc							
	Gas μCi/cc							
Condenser Off Gas	Part. μCi/cc							
	Iodine μCi/cc							
Steamline Monitor	mR/hr							
Containment Area Monitor	R/hr							

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX M Page 6 of 6
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 44 of 50

CLERICAL AIDE/STATUS BOARD KEEPER-EOF
RESPONSE & STATUS BOARDS

RADIOLOGICAL STATUS

Date: ________ Time: ________
Release: Occuring ________ Controlled ________ Yes/No
Anticipated ________ When ________
Location of Release: Plant vent ________ Steam ________
Containment ________ Condenser ________
Fuel Building ________ Aux Feed Pump ________
Release Monitored: Yes ________ No ________
Form: Gas ________ Particulate ________ Liquid ________
Iodine —
131 Equiv.: Release rate: ________ µCi/cc x ________ CC/sec. = ________ µCi/sec.
Particulate Release rate: ________ µCi/cc x ________ CC/sec. = ________ µCi/sec.
Noble gas. Release rate: ________ µCi/cc x ________ CC/sec. = ________ µCi/sec.
Est. of Surface Contamination: ________ dpm/100 cm²
Where ________
Unusual Radiation Level in Plant: ________ mR/hr
Where ________
Wind Velocity: ________ mph Direction (from) ________ °true
Sigma ________
Stability: Class ________ ΔT ________ °F Precipitation ________ in./24 hrs
ANPP Recomended PAC ________
State/County Implemented PAC ________

CENTERLINE DOSE PROJECTIONS

	2hr Proj Dose (Rem) W.B.	2hr Proj Dose (Rem) Thy.	Proj Int Dose (Rem) W.B.	Proj Int Dose (Rem) Thy.	Sector
Site Bound.					
2 mi.					
5 mi.					
10 mi.					

PLANT MONITORING DATA

Location	Time	Dose Rate	Count Rate	Iodine Conc.	Particulate Conc.
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc
		mR/hr	cpm	µCi/cc	µCi/cc

5

OFFSITE TECHNICAL REPRESENTATIVE
RESPONSE & LOG

POSITION FILLED BY: (1) Designated person from Nuclear Operations Licensing with appropriate training.

(2) Other Designated Personnel

RESPONSIBILITY: Coordinate ANPP emergency response activities with federal/state/county agencies at the State EOC/TOC. Provide up-to-date site information. Interpret substantiated data regarding PVNGS emergency status and conditions for emergency response agencies assigned to the State EOC/TOC.

IMMEDIATE ACTIONS:

1. Report to Technical Operations Center (TOC) at State Emergency Operations Center (EOC), ADES Headquarters, 5636 East McDowell Road in Phoenix, upon notification.

2. Report presence to ARRA Director of Radiological Technical Operations.

3. Contact Technical Analysis Coordinator at EOF using dedicated voice circuit and receive initial briefing.

SUBSEQUENT ACTIONS:

ANPP and State EOC/TOC Coordination

*4. Maintain communications and coordinate actions between ARRA Director of Radiological Technical Operations and ANPP Technical Analysis Coordinator at EOF using dedicated voice circuit.

*5. Provide site information and interpret data at State TOC.

CONTROLLED DOCUMENT

5

OFFSITE TECHNICAL REPRESENTATIVE
RESPONSE and Log (Cont.)

*6. Maintain log as necessary.

Recovery

7. Submit any documentation and log to Technical Analysis Coordinator at EOF upon cancellation of emergency.

*Continuing Activity

OFFSITE TECHNICAL REPRESENTATIVE RESPONSE AND LOG

	Time	Person Contacted	Information Related
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Performed By _____
Signature

Date _____

CONTROLLED DOCUMENT

5

JENC TECHNICAL ADVISOR RESPONSE

POSITION FILLED BY: (1) Designated person from Nuclear Engineering Department with appropriate training.

(2) Other Designated Personnel

RESPONSIBILITY: Provide any necessary technical explanations and background to JENC Facility Manager. Review technical content of all media releases.

IMMEDIATE ACTIONS:

1. Upon notification report to Joint Emergency News Center (JENC) at 5636 E. McDowell Rd., Phoenix.

2. Report presence to JENC Facility Manager.

3. Contact Technical Analysis Coordinator at EOF using dedicated voice circuit (or alternate) and receive initial briefing.

SUBSEQUENT ACTIONS:

Public Information

*4. Maintain frequent communication with EOF contact and receive plant status updates.

*5. Provide technical explanations and background information to JENC Facility Manager, as necessary (and to media if required).

*6. Review technical content of all media releases.

Recovery

7. Submit check list to Technical Analysis Coordinator at EOF upon cancellation of emergency.

CONTROLLED DOCUMENT

5

SECURITY FORCE MEMBER
RESPONSE

POSITION FILLED BY: Security Personnel

RESPONSIBILITY: Restrict access to EOF.

IMMEDIATE ACTIONS:

1. Upon being relieved by the reporting Security Officer proceed to EOF and perform the following:

   (1) Lock door by stairway #2 (see Appendix Q) to restrict entrance to the EOF.

   (2) Man post inside the Annex Building basement air lock to restrict entrance into the EOF.

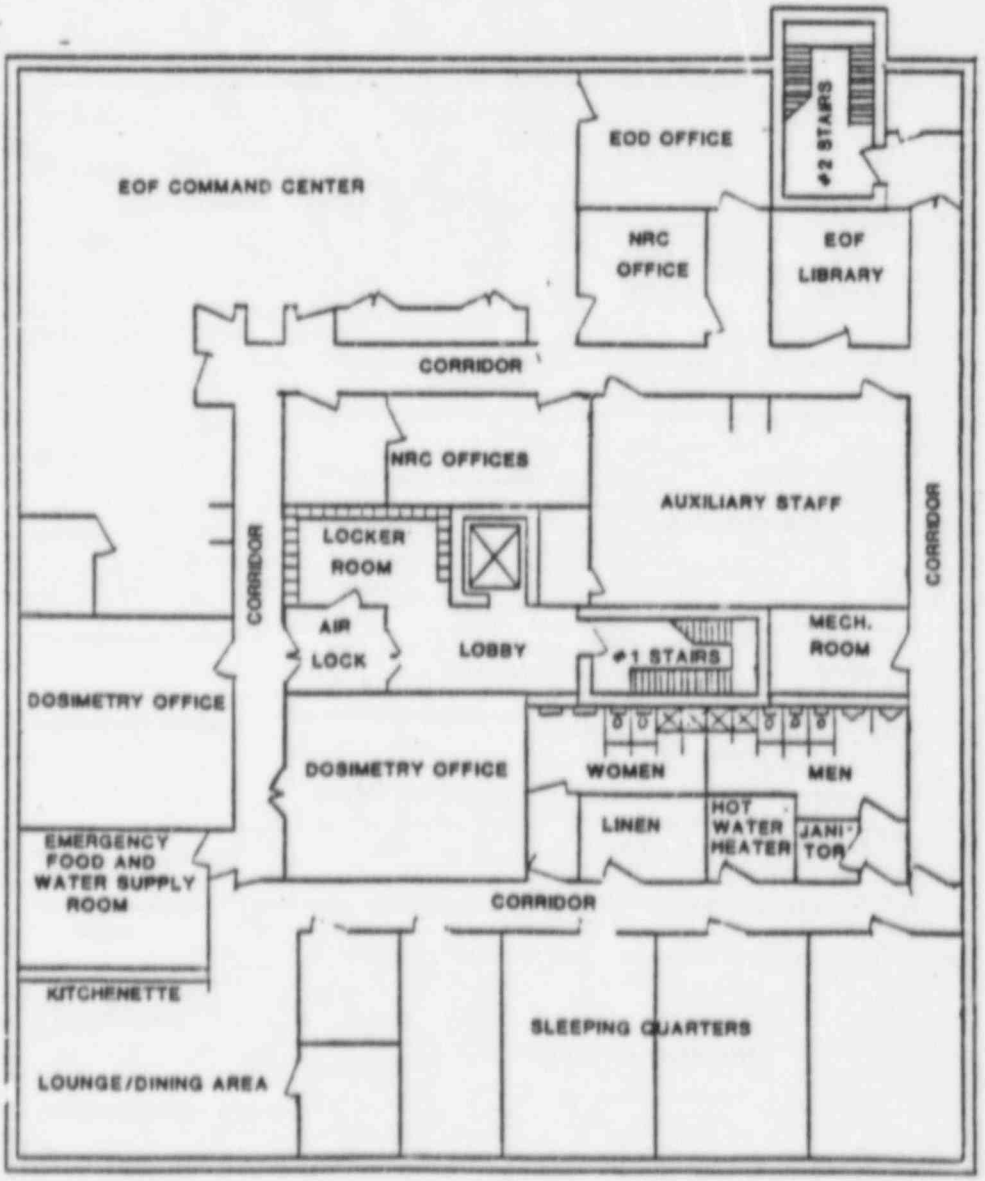
2. Report completion of EOF readiness to Security Captain at Security Building.

SUBSEQUENT ACTIONS:

3. Submit any documentation to Security Coordinator when emergency is terminated.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-13	APPENDIX Q Page 1 of 1
EMERGENCY OPERATIONS FACILITY ACTIVATION	REVISION 5	Page 50 of 50

EMERGENCY OPERATIONS FACILITY LAYOUT



PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

ASSIGNED COPY

PVNGS #8-913

PAGE 1 of 1

INTENT CHANGE: NO ☐ YES ☐

1. PROCEDURE TITLE Release Rate Determination

2. PROCEDURE NUMBER EPIP 14A REV. 6 PCN 02

2a. Manager concurrence to exceed 5 PCNs N/A DATE —

3. REASON FOR PCN: TO ESTABLISH A METHOD FOR RELEASE RATE DETERMINATION WHEN STEAM LINE MONITORS ARE INOPERABLE

4. EXPIRATION: NEXT REVISION

5. AFFECTED STEPS: PAGE 7, "NOTE" PRECEDING STEP 7.3.2.1

CHANGE REQUIRED: DELETE PAGE 7 of 23 AND REPLACE WITH PAGE 7a

6. PREPARED BY: [signature] 12-13-85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DATE

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

SS/Assist. SS DATE

8. DEPT. MANAGER: [signature] 12/18/85
SIGNATURE DATE

9. PRB/PRC/TRRC: [signature] 1/2/86
SIGNATURE DATE

10. APPROVED BY: [signature] 1/6/86
DEPARTMENT MANAGER'S SIGNATURE DATE

11. DATE EFFECTIVE: 01-15-86

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

INTENT CHANGE: NO ☒ YES ☐

1. PROCEDURE TITLE Release Rec. Determination

2. PROCEDURE NUMBER EDIP. 14A REV. 6 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To collect grab in Rpt E to meet License commitment.

4. EXPIRATION: Next revision

5. AFFECTED STEPS: Page 6 of 7 of Rpt. E

CHANGE REQUIRED: Delete page 6 of 7 of Rpt E & insert 6A of 7, Rpt E

6. PREPARED BY: [signature] 6/25/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DATE

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

SS/Assist. SS DATE

8. DEPT. MANAGER: [signature] 6/25/85
SIGNATURE DATE

9. PRB/PRG/TRRG: [signature] 6/25/85
SIGNATURE DATE

10. APPROVED BY: [signature] 6/25/85
DEPARTMENT MANAGER'S SIGNATURE DATE

11. DATE EFFECTIVE

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	
RELEASE RATE DETERMINATION	REVISION 6	Page 1 of 23

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PVNGS #8-9B

DEPT. HEAD Dennis S. [signature] DATE 3/19/85
PRB/PRG/TRRG REVIEW J.M. Allen DATE 3/29/85
APPROVED BY [signature] DATE 4/5/85
EFFECTIVE DATE 04.10.85

DN-1620A/0651A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	
RELEASE RATE DETERMINATION	REVISION 6	Page 2 of 23

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
5	~~12-21-84~~ OA-10-85	4, 8, 15	Revised SLM Correction Factor Calculational Method.
6		3,9,10,19-23	Incorporated new Bechtel calculations for isolated containment and external monitors.

TABLE OF CONTENTS

APPENDICES

CONTROLLED DOCUMENT

1.0 OBJECTIVE

This procedure permits determination of radioactive release rates (Sections 4.3.1 and 4.3.2) or the projection of release rates using design basis containment leak rates (Sections 4.3.3 and 4.3.4).

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-14B, "Initial Dose Assessment"

2.1.2 78AC-0ZZ06, "Document and Record Turnover Control"

2.1.3 74CH-9ZZ47, "Core Damage Assessment"

2.2 Developmental References

2.2.1 PVNGS Emergency Plan, Rev. 5

2.2.2 FSAR, Chapter 11, "Process and Effluent Radiological Monitoring and Sampling Systems", Section 11.5, August 1981.

2.2.3 NUREG-0737, "Clarification of TMI Action Plan Requirements", October 1980.

2.2.4 EPA-520/1-75-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," Rev. 6/80.

2.2.5 CE System 80 CESSAR, Standard PWR NSSS

2.2.6 Steam Tables; Table 1, ASME, 1967

2.2.7 ANPP: Radiation Design Guide, SYS 80-PE-RG, Rev. 2

2.2.8 "Reactor Shielding Design Manual," T. Rockwell, III, editor. D. Van Nostrand, Princeton NJ

2.2.9 "Radiological Health Handbook," US DNEW, 1970, National Technical Information Service

3.0 LIMITATIONS AND PRECAUTIONS

3.1 The accuracy of plant vent monitors is ±25% and the accuracy of containment area monitors is ±20%. Therefore, release rate calculations may be limited to two significant figures.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 Monitor readings and monitor channel number should be obtained from the communication console in the Control Room or the console in the Radiation Protection office.

4.1.2 "Effective age" refers to the time between core shutdown and time of the release. Release rates will vary as a function of "effective age".

4.1.3 When selecting values from the appendices, data corresponding to 1% failed fuel shall be used unless plant conditions indicate severe fuel cladding failure. When the effective age falls between two listed values, an effective age that yields the higher value shall be used.

4.1.4 The Radiation Protection Technician (affected unit) shall be responsible for the initial release rate determinations and off-site dose calculations (EPIPs-14A, 14B).

4.1.5 The Radiological Protection Coordinator shall be responsible for dose assessment when the TSC is activated (EPIPs-14A, 14B, 14C).

4.1.6 If the CRAC System or IBM PC Dose Projection programs are to be used, proceed directly to the CRAC System Operations Procedure or the PVNGS Emergency Off-site Dose Calculation Computer Program, App. E, of EPIP 14B.

4.1.7 All release rate determination/projection documents shall be processed in accordance with 78AC-0ZZ06, "Document and Record Turnover Control". These documents may be in the form of the Data Tables in the appendices or computer printouts from CRACS or the IBM PC program.

4.2 Prerequisites

None

CONTROLLED DOCUMENT

4.3 Instructions

NOTE

Use Section 4.3.1 for actual releases through the Plant Vent, Fuel Building Vent Exhaust and/or Condenser Air Removal System. If the release is through the main steam lines only, proceed to Section 4.3.2. If it is desired to predict release rates from containment, proceed to Section 4.3.3.

4.3.1 Determination of Activity Release Rate From an Effluent Release Point (Appendix A)

4.3.1.1 Complete Section A of Appendix A, "Release Rate Determination From an Effluent Release Point" and obtain RMS data and monitor channel number from RP office or Control Room to determine the monitor correction factor from Appendix B.

4.3.1.2 From the Control Room, determine which fans are operating and complete Section B. If fan operating information is not available, assume that all fans are running. Total plant release rate is the sum of the individual pathway release rates.

4.3.1.3 Complete Section C using the Total Noble Gas Release Rate from Section B and the values listed in Appendix C.

4.3.1.4 If a release is in progress via the main steam lines, continue with Section 4.3.2; if not, perform offsite dose projections in accordance with EPIP-14B, "Initial Dose Assessment".

PCN #02

4.3.2 Determination of Activity Release Rate From the Main Steam Lines (Appendix D)

NOTE

Due to the low effective energy, Main Steam Line Monitors will not detect a noble gas release under maximum design operating parameters (1% Failed Fuel; FSAR Chapter 11). If Main Steam Line Monitor readings are above normal operating background levels then severe core degradation should be assumed and the higher source term values of total core inventory should be used for release rate and dose projection calculations. Notify the Shift Supervisor or Radiation Protection Coordinator (if present) immediately.

4.3.2.1 Complete Section A of Appendix D, "Release Rate Determination from Main Steam System".

4.3.2.2 Enter the value of the higher reading monitor for the affected steam generator in Section B of Appendix D, pg. 1. (Ex. If only one steam generator is exhibiting primary to secondary leakage, enter the higher value between the A & B channel for this steam generator. If both steam generators exhibit primary to secondary leaks then the higher channel for both RU-139 and RU-140 shall be entered and the releases added together.)

4.3.2.3 Multiply the higher monitor reading from RU-139 A or B and/or RU-140 A or B by the Correction Factor shown below to obtain Steam Line Concentration. Record in Section B both Correction Factor used and Steam Line Concentration.

4.3.2 Determination of Activity Release Rate From the Main Steam Lines (Appendix D)

NOTE

If Both channels of either RU-139 or RU-140 are inoperable, default values should be used for Main Steam Line Release Rates. The following values are based on the Steam Generator Tube Rupture Accident Analysis from CESSAR 15.6:

	NOBLE GAS	IODINES
Main Steam Safety Valve Release	2.39 Ci/sec	.318 Ci/sec
Atmospheric Dump Valve Operation		
0-2 Hours after shut-down	3.87E-2 Ci/sec	5.15E-3 Ci/sec
2-8 Hours after shut-down	2.77E-2 Ci/sec	3.69E-3 Ci/sec

PCN 2

4.3.2.1 Complete Section A of Appendix D, "Release Rate Determination from Main Steam System".

4.3.2.2 Enter the value of the higher reading monitor for the affected steam generator in Section B of Appendix D, pg. 1 (Ex. If only one steam generator is exhibiting primary to secondary leakage, enter the higher value between the A & B channel for this steam generator. If both steam generators exhibit primary to secondary leaks then the higher channel for both RU-139 and RU-140 shall be entered and the releases added together).

4.3.2.3 Multiply the higher monitor reading from RU-139 A or B and/or RU-140 A or B by the Correction Factor shown below to obtain Steam Line Concentration. Record in Section B both Correction Factor used and Steam Line Concentration.

Monitor Correction Factors (4.3.2.3)

Effective Age (HR)	Monitor Correction Factor (hr-μCi / mr-cc)
0	.078
.5	.089
1.0	.11
1.5	.13
2.0	.17
2.5	.24
3.0	.28
3.5	.32
4	.44
5	1.3
6	1.8
7	5.2
8	15.6

4.3.2.4 Record Noble Gas Concentration in microcuries per cubic centimeter for each monitor used in Section B.

NOTE

Reactor Coolant System Temperature is used as steam temperature for steam density compensation.

4.3.2.5 Obtain from the Control Room the Reactor Coolant System (RCS) temperature in degrees Fahrenheit and steam line flow rates in pounds per hour. Record flow rates in Section B.

4.3.2.6 Using RCS temperature and page 3 of Appendix D, select the appropriate Conversion Factor and record in Section B.

4.3.2.7 Complete Section B by multiplying Noble Gas Concentration by Conversion Factor and Steam Flow Rate.

4.3.2.8 Complete Section C using Total Noble Gas Release Rate from Section B and values listed in Appendix C (Total Core Inventory) for Total I/NG ratio and I-131/Total I ratio for given effective age.

4.3.2.9 Add noble gas and I-131 release rates to those determined in Section 4.3.1, if applicable, and perform offsite dose projections in accordance with EPIP-14B.

4.3.3 Release Rate Projections From an Isolated Containment Using Design Basis Leak Rates and Area Monitors or External Containment Radiation Monitors (Appendix E)

NOTE

This section is to be performed using information from area monitors (RU-148 or RU-149) or external containment monitors. Projections based on the use of these numbers should be verified as soon as possible utilizing field measurements and/or lab analysis. If the area monitors, RU-148 or RU-149, are inoperative proceed to Appendix E, section 2.0, use of external containment radiation monitors.

4.3.3.1 Complete Appendix E, page 1 using the instructions and tables in Appendix E.

4.3.3.2 Enter the Core Damage Estimate found in Section 1.2.13 of Appendix E in Section E of page 1, Appendix E.

CONTROLLED DOCUMENT

...RATE DETERMINATION

...ASE ...E DETERMINATION FROM A... ...ENT REL...

Release Data _____ Time _____ EFFECTIVE AGE _____

...OWN: Date _____ Time _____

...ART: Date _____ Time _____

...ion B: Noble Gas Release Rate Determination

Part 1. Plant Vent (Aux & Radwaste Bldg, Cntmt Refueling & Cntmt Power Access Purge)

HAN-J01A (30,000 cfm)						
HAN-J01B (30,000 cfm)						
HRN-J01A (25,500 cfm)						
HRN-J01B (25,500 cfm)						
CPN-J01A (16,500 cfm)						
CPN-J01B (16,500 cfm)						
CPN-J02 (2,200 cfm)						
TOTAL FLOW RATE (cfm) _____	X	Effective Age Correction Factor (App B) _____	X	Noble Gas Conc (RU-143 or RU-144) (µCi/cc) _____	X	Conversion Constant (cc-Ci/cfm sec-µCi) 4.72E-04	=	Noble Gas Release Rate (Ci/sec) _____

Part 2. Condenser Air Removal System

Vacuum Pump A (60 cfm)						
Vacuum Pump B (60 cfm)						
Vacuum Pump C (60 cfm)						
Vacuum Pump D (60 cfm)						
Steam Packing Exhaust						
TOTAL FLOW RATE (cfm) _____	X	Effective Age Correction Factor (App B) _____	X	Noble Gas Conc (RU-141 or RU-142) (µCi/cc) _____	X	Conversion Constant (cc-Ci/cfm sec-µCi) 4.72E-04	=	Noble Gas Release Rate (Ci/sec) _____

Part 3. Fuel Building Vent

HFN-J01A (21,750 cfm)						
HFN-J01B (21,750 cfm)						
HFA-J01 (6,000 cfm)						
HFB-J01 (6,000 cfm)						
TOTAL FLOW RATE (cfm) _____	X	Effective Age Correction Factor (App B) _____	X	Noble Gas Conc (RU-145 or RU-146) (µCi/cc) _____	X	Conversion Constant (cc-Ci/cfm sec-µCi) 4.72E-04	=	Noble Gas Release Rate (Ci/sec) _____

PV216-000A (8/82)

TOTAL EFFLUENT NOBLE GAS RELEASE RATE (Ci/sec) = _____

Section C: I-131 Release Rate Determination

Table Used: |___| 1% Failed Fuel

|___| Total Core Inventory

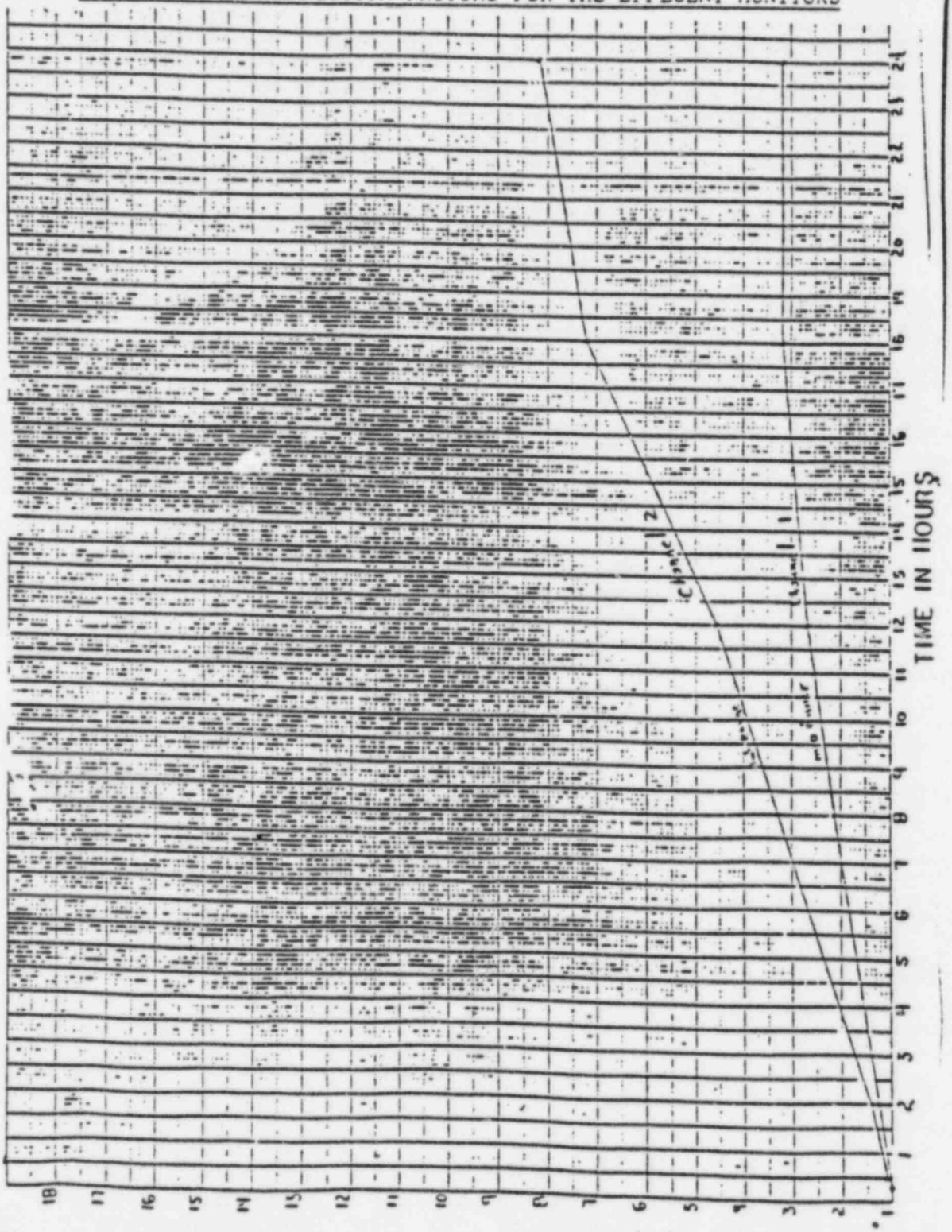
Noble Gas Release Rate (Section B) (Ci/sec)		Total Iodine to Noble Gas Ratio (Appendix C)		Volatile Factor		Total Iodine Release Rate (Ci/sec)
_____	X	_____	X	.25	=	_____

Total Iodine Release Rate (Ci/sec)		I-131 to Total Iodine Ratio (Appendix C)		I-131 Release Rate (Ci/sec)
_____	X	_____	=	_____

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	APPENDIX B Page 1 of 1
RELEASE RATE DETERMINATION	REVISION 6	Page 12 of 23

EFFECTIVE AGE CORRECTION FACTORS FOR THE EFFLUENT MONITORS



PV216 00DA (8/82)

NOBLE GAS AND IODINE RADIOLOGICAL DATA

Effective Age (hr)	1% FAILED FUEL Relative Release Rate Ratios of Total I/NG	1% FAILED FUEL Relative Release Rate Ratios of I-131/Total I	TOTAL CORE INVENTORY Relative Release Rate Ratios of Total I/NG	TOTAL CORE INVENTORY Relative Release Rate Ratios of I-131/Tot I
0-1	.29	.28	1.5	.14
1-10	.25	.35	1.5	.25
10-100	.16	.75	.8	.75
>100	.3	1.0	1.2	1.0

CONTROLLED DOCUMENT

RELEASE RATE DETERMINATION FROM MAIN STEAM SYSTEM

Section A: Release Data

REACTOR SHUTDOWN: Date _____ Time _____

RELEASE START: Date _____ Time _____

EFFECTIVE AGE: _____

Section B: Noble Gas Release Rate Determination

NOTE: Enter N/A for non-affected steam generator.

Monitor Number	Monitor Reading (mr/hr)		Monitor Correction Factor		Steam Line Concentration (µCi/cc)
RU-139 (higher reading channel, if applicable)	_____	X	_____	=	_____
RU-140 (higher reading channel, if applicable)	_____	X	_____	=	_____

	Noble Gas Concentration (µCI/cc)		Steam Density Conversion Factor (cc-Ci-hr/lb-µCi-sec)		Steam Flow (lb/hr)		Noble Gas Release Rate (Ci/sec)
RU-139	_____	X	_____	X	_____	=	_____
RU-140	_____	X	_____	X	_____	=	_____

RU-139 Noble Gas Release Rate		RU-140 Noble Gas Release Rate		Total Noble Gas Release Rate
_____	+	_____	=	_____

RELEASE RATE DETERMINATION FROM MAIN STEAM SYSTEM (CONT'D)

Section C: I-131 Release Rate Determination (Use Total Core Inventory Ratios in App. C)

Noble Gas Release Rate (Section B) (Ci/sec)		Total Iodine to Noble Gas Ration (Appendix C)		Volatility Factor		Total Iodine Release Rate (Ci/sec)
_____	X	_____	X	.01	=	_____

Total Iodine Release Rate (Ci/sec)		I-131/total Iodine Ratio (Appendix C)		I-131 Release Rate (Ci/sec)
_____	X	_____	=	_____

CONTROLLED DOCUMENT

Reactor Coolant System/Steam Temperature(°F)	Steam Density Converstion Factor (cc-Ci-hr/lb- μ Ci-sec)
200	2.65E-04
220	1.82E-04
240	1.28E-04
260	9.25E-05
280	6.81E-05
300	6.08E-05
320	3.86E-05
340	2.97E-05
360	2.33E-05
380	1.84E-05
400	1.47E-05
420	1.18E-05
440	9.58E-06
460	7.81E-06
480	6.42E-06
500	5.31E-06
520	4.39E-06
540	3.67E-06
560	3.06E-06
580	2.53E-06
600	2.10E-06
620	1.74E-06
640	1.42E-06
660	1.14E-06
680	8.75E-07

NOTE

The Steam Density Conversion Factor compensates for steam density changes, converts μCi to Ci, and converts flow rate to release rate.

This table was developed from Table 1 of the ASME Steam Tables using the specific volume (ft^3/lb) of saturated vapor at a given temperature (°F).

CONTROLLED DOCUMENT

RELEASE RATE PROJECTION FROM AN ISOLATED CONTAINMENT USING DESIGN BASIS LEAK RATES AND AREA MONITORS OR EXTERNAL CONTAINMENT RADIATION MONITORS

Section A: Plant Data

REACTOR SHUTDOWN: Date _____ Time _____

RELEASE START: Date _____ Time _____

EFFECTIVE AGE: _____

RU-148 reading or: _____ r/hr
Table 2 Correlation

RU-149 reading or: _____ r/hr
Table 2 Correlation

Section B: Highest of RU-148 and RU-149 Readings (or Table 2 correlations)

Highest of Monitor Readings (Section A) (r/hr)

_____

Section C: Noble Gas Release Rate Projection based on area monitors

Projected Noble Gas Concentration (Table 1) (µCi/cc)		Projected Leak Rate (Tech Specs) (cc/sec)		Conversion Constant (µCi to Ci)		Projected Noble Gas Release Rate (Ci/sec)
_____	X	8.52E+02	X	1E-06	=	_____

Section D: I-131 Release Rate Projection based on area monitors

Projected Iodine Concentration (Table 1) (µCi/cc)		Projected Leak Rate (Tech Specs) (cc/sec)		Conversion Constant (µCi to Ci)		Total Iodine Release Rate
_____	X	8.52E+02	X	1E-06	=	_____

Section E: Core Damage Estimate based on Table 1 (Section 1.2.13)

_____% of fuel rods are damaged.

Estimating Containment Airborne Concentrations
from Internal and External Containment Monitors

1.0 Containment Airborne Concentration Estimation Using RE-148, RE-149

1.1 Summary: The Nomograph in table 1 of this appendix relates the indicated dose rate at either high range in-containment area monitor to the airborne concentrations of either noble gases or radioiodines in the containment. As the airborne concentration is related to the extent of core damage (given releases from the reactor coolant system) the nomograph also identifies core damage after taking decay into consideration.

1.2 Instructions

1.2.1 Enter time, date, and name in legend space on table 1.

1.2.2 This nomograph requires data from either high range in-containment monitor (RE-148 or RE-149). Obtain a reading from the higher reading monitor. If monitor data are not available or of questionable validity, refer to Sect. 2.0, Correlation of External Containment Monitors to RE-148 or RE-149.

1.2.3 Enter monitor number and reading (R/hr) on table 1.

1.2.4 Locate the right hand vertical axis labeled Rem/hr.

1.2.5 Make a mark on the axis at a point responding to the value of the radiation monitor reading.

1.2.6 Locate the portion of the horizontal axis labeled "Time After Shutdown."

1.2.7 Mark the axis at the time corresponding to effective age of the mixture in containment.

1.2.8 Draw a vertical line through the time marked on the "Time After Shutdown" axis.

1.2.9 Draw a horizontal line from the mark on the Rem/hr axis to the left until it intersects the vertical line drawn in step 1.2.8.

1.2.10 Draw a curved line up and to the left parallelling the curve for the monitor being used (RE-148 or RE-149) to where the line intersects the axis marked "Reference Rem/hr." Mark the point of intersection.

1.2.11 Draw a horizontal line to the left from the mark on the "Reference Rem/hr" axis through the "Core Damage" axes.

1.2.12 Identify the "Core Damage" axis that is the labeled for the monitor being used (RE-148 or RE-149). Mark that axis at the point that it is intersected by the line drawn in step 1.2.11.

1.2.13 Read the core damage estimate at the point marked in step 1.2.12.

1.2.14 Extend the vertical line drawn in step 1.2.8 until it intersects the curve corresponding to 100% core damage for the detector used (RE-148 or RE-149). The 100% core damage curve is the uppermost curve. Mark the point of intersection.

1.2.15 Draw a horizontal line to the right from the point made in step 1.2.14 to the intersection of the "Rem/hr" axis and mark this point.

1.2.16 Locate the "Rem/hr" scale on the horizontal axis to the left of the core damage axes. Mark the point on the "Rem/hr" axis corresponding to the value from 1.2.15.

1.2.17 Draw a vertical line through this point intersecting all four curves above it.

1.2.18 Mark the intersection of the vertical line with the noble gas and iodine curves for the monitor being used (RE-148 or RE-149).

1.2.19 On the left side of the horizontal axis, locate the "Normalization Factor" portion. Mark the axis at the point corresponding to the core damage estimate read in step 1.2.13.

1.2.20 Draw a vertical line through the "Normalization Factor" axis at the value marked above.

1.2.21 Draw a horizontal line to the left from the point on the iodine curve marked in 1.2.18 until it intersects the vertical drawn in 1.2.20. Mark this intersection.

1.2.22 Draw a line down and to the left at a 45 degree angle from the intersection marked in 1.2.21 (this line will parallel the heavy diagonal lines already drawn on the nomograph) until it intersects the left vertical axis marked "µCi/cc." Mark this point.

1.2.23 Read the value marked in 1.2.22 and record the value in Appendix E, as the iodine concentration.

1.2.24 Repeat steps 1.2.21 through 1.2.23 for the noble gas curve.

2.0 Containment Airborne Concentration Estimation Using Area Monitors External to Containment.

2.1 This section is to be used when the containment high range monitors are not operable or the readings are suspect.

2.1.1 The following external detectors may be used when the In-containment high range monitors are inoperative or their readings are suspect.

2.1.1.1 RE-158 B&C Accident range external containment area monitors, they are ion chambers with a range of 0.1 to 10,000 R/hr.

2.1.1.2 RE-37&RE-38 Power Access Purge Area (PAPA) monitors, they are GM tubes with a range of 0.1 to 10,000 mR/hr.

2.1.1.3 Hand-held — A portable instrument, held against the outside of containment on the 104' elevation by the tendon gallery. This instrument should have a range of 0.1 10,000 mR/hr. Two instruments may be required to meet this range (e.g., an RO-2 and an RO-2A).

2.2 Instructions

2.2.1 Obtain a reading from one of the above instruments (the instrument selected should be taken in the order listed in 2.1.1).

2.2.2 On table 2, mark the instrument reading on the horizontal axis labeled Dose Rate (Rem/hr).

2.2.3 Draw a vertical line up through this point until the line intersects the curve of the detector used. Mark this intersection.

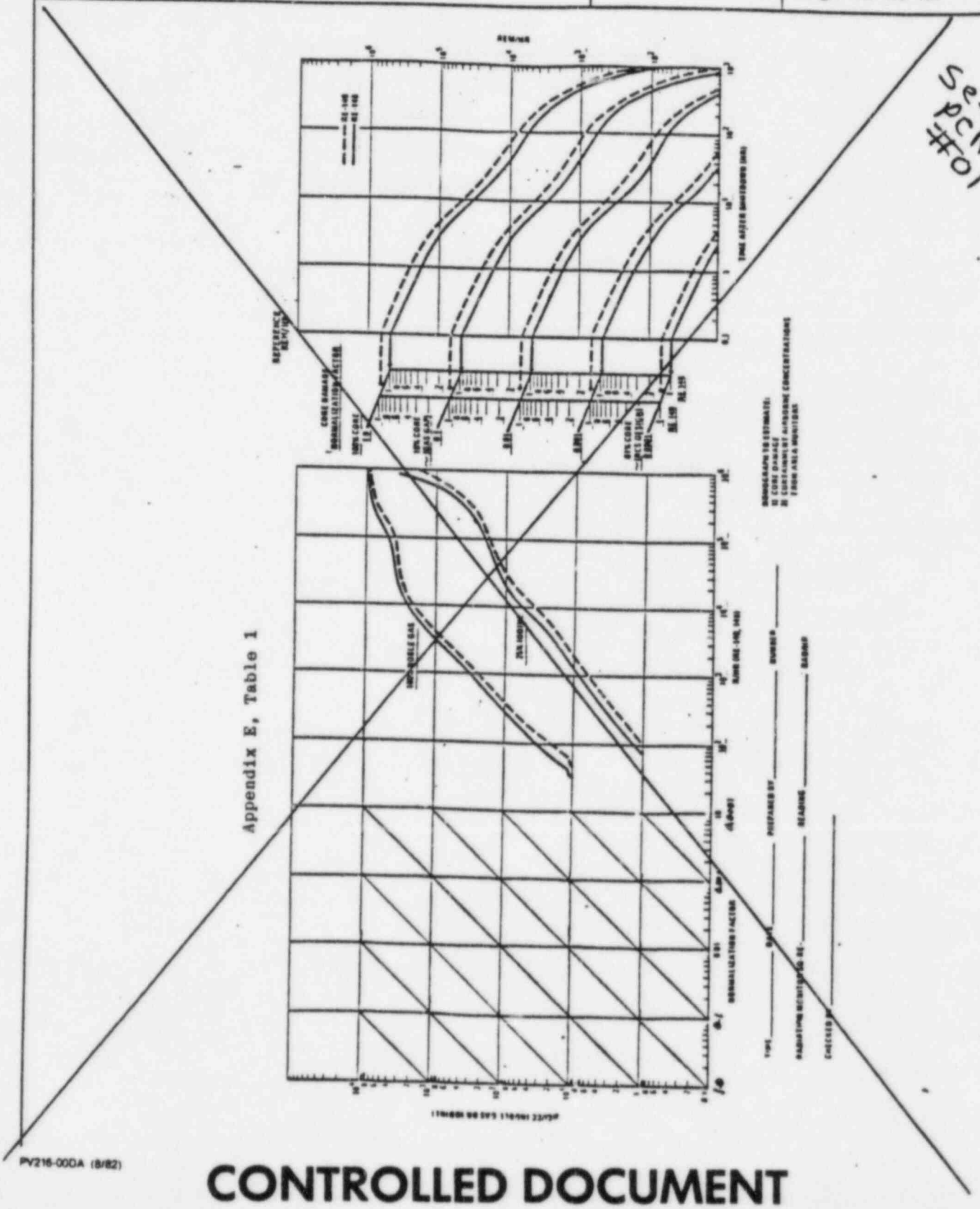
2.2.4 Draw a horizontal line from this point to the right until it intersects the curves for RE-148 & 149. Mark the points of intersection.

2.2.5 Draw a vertical line from these points down to the horizontal axis. Mark the intersections on the axis.

2.2.6 Transfer the higher reading from above to the data sheet and go to section 1.0 to determine the containment airborne concentration.

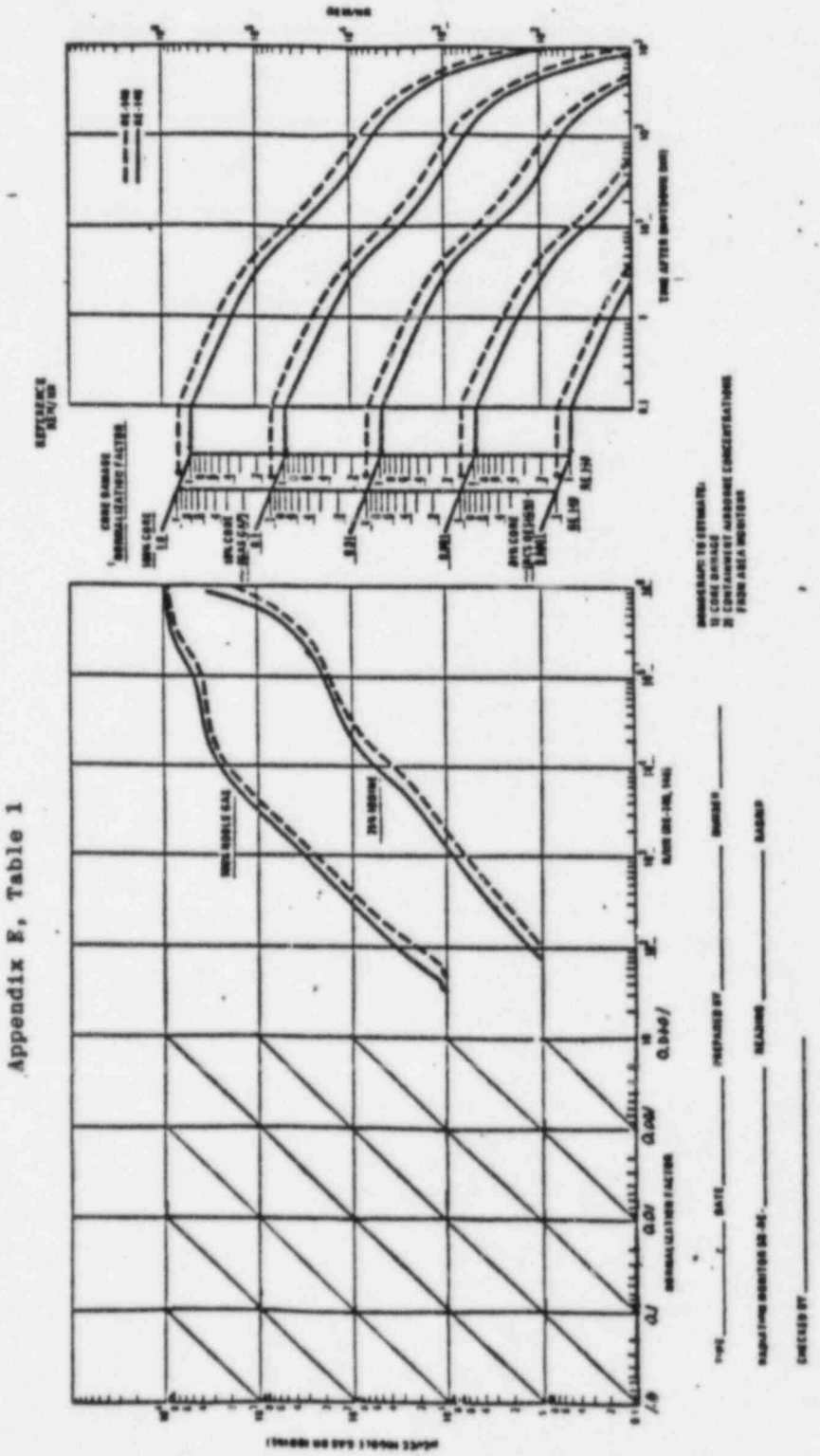
PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	APPENDIX E Page 6 of 7
RELEASE RATE DETERMINATION	REVISION 6	Page 22 of 23

See PCN #01



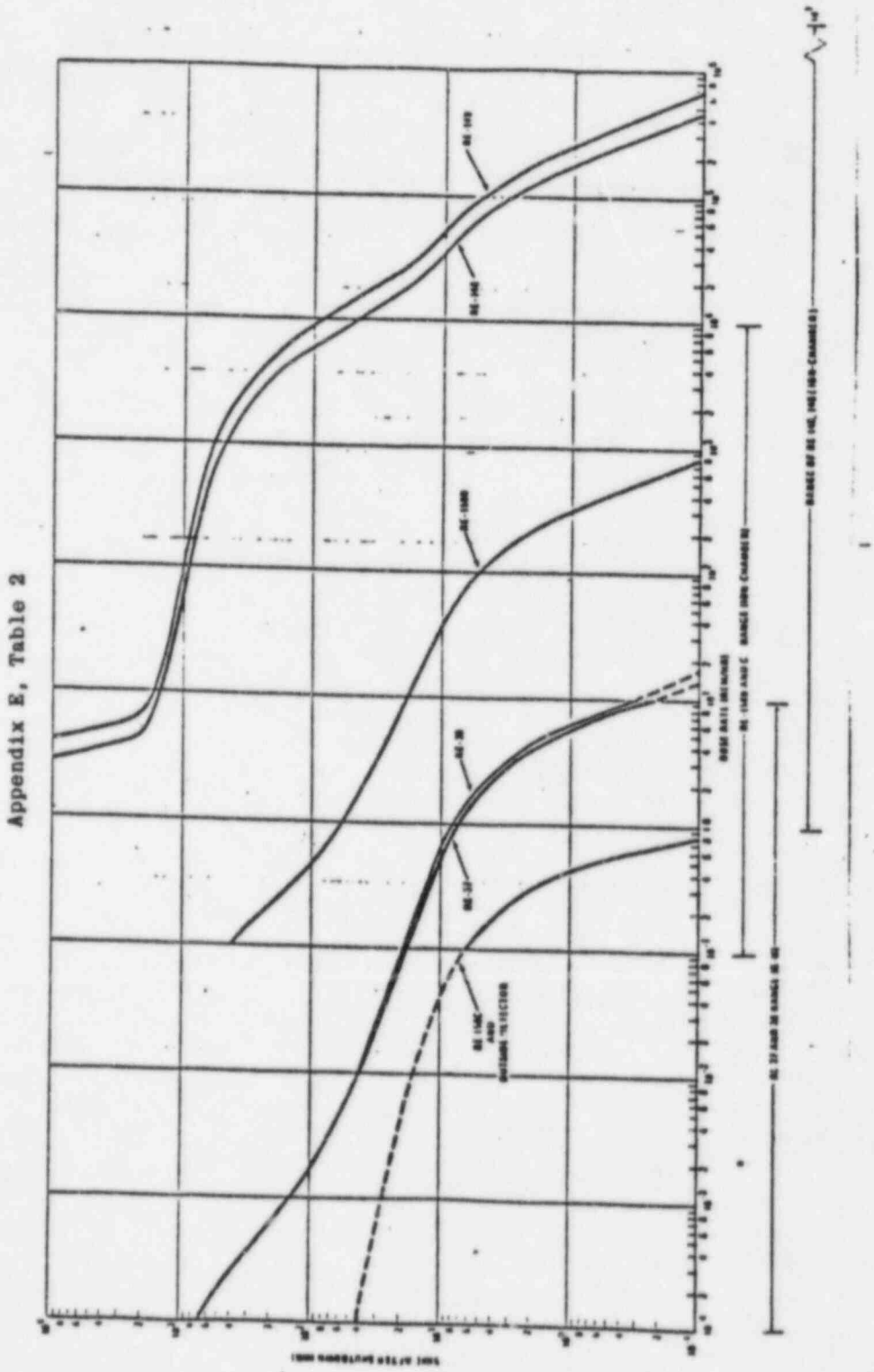
Appendix E, Table 1

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	APPENDIX E Page 6A of 7
RELEASE RATE DETERMINATION	REVISION 6	PCN #01 Page 22A of 23



Appendix E, Table 1

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	APPENDIX E Page 7 of 7
RELEASE RATE DETERMINATION	REVISION 6	Page 23 of 23



Appendix E, Table 2

CONTROLLED DOCUMENT

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

ASSIGNED COPY
PVNGS #8-9B

PAGE 1 of 1

INTENT CHANGE: NO [ ]
YES [ ]

1. PROCEDURE TITLE Protective Action Guidelines

2. PROCEDURE NUMBER EPIP-15 REV. 3 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update Protective Action Recommendations to reflect current regulatory guidelines.

4. EXPIRATION: Next Revision

5. AFFECTED STEPS: Appendix A, pg 2.

CHANGE REQUIRED: Delete page 11; Insert 11a

6. PREPARED BY: Gerald A. Aimele 12/23/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DATE

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

SS/Assist. SS DATE

8. DEPT. MANAGER: Dennis S. [signature] 12/24/85
SIGNATURE DATE

9. PRB/PRC/TRRC: [signature] 1/8/86
SIGNATURE DATE

10. APPROVED BY: J R Bynum
DEPARTMENT MANAGER SIGNATURE

11. DATE EFFECTIVE: 1/9/86 DATE

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-15	
PROTECTIVE ACTION GUIDELINES	REVISION 3	Page 1 of 15

ASSIGNED COPY

PVNGS #8-9B

DEPT. HEAD Dennis D. Gower DATE 6/17/85

PRB/PRG/TRRG REVIEW [signature] DATE 6/24/85

APPROVED BY [signature] DATE 6/25/85

EFFECTIVE DATE 06.21.85

DN-1669A/0196A

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	04.21.87	4, 5, 6, 7, 10, 11, 12, 13	Corrected references; revised procedure to match writers guide; corrected referrals to personnel responsibilities; CORRECTED PAG's in App. A.

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TABLE OF CONTENTS

APPENDICES

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-15	
PROTECTIVE ACTION GUIDELINES	REVISION 3	Page 4 of 15

1.0 OBJECTIVE

1.1 To provide a basis for relating actual or projected plume exposure doses to the Environmental Protection Agency (EPA) Protective Action Guides (PAGs).

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-14B, "Initial Dose Assessment"

2.1.2 EPIP-17, "Onsite/Offsite Surveys and Sampling"

2.1.3 EPIP-03, "NOTIFICATION OF UNUSUAL EVENT Implementing Actions"

2.1.4 EPIP-04, "ALERT Implementing Actions"

2.1.5 EPIP-05, "SITE AREA EMERGENCY Implementing Actions"

2.1.6 EPIP-06, "GENERAL EMERGENCY Implementing Actions"

2.2 Developmental References

2.2.1 NUREG 0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".

2.2.2 Manual of Protective Action Guides and Protective Actions for Nuclear Incidents; as revised June, 1980; EPA-520/1-75-001.

2.2.3 PVNGS Emergency Plan, Rev. 5.

3.0 LIMITATIONS AND PRECAUTIONS

3.1 The protective actions determined by this procedure are to be presented to appropriate state/county agencies as RECOMMENDATIONS. Only these agencies are authorized to implement the protective actions.

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3.2 Protective action recommendations are based on plant and containment conditions and these recommendations are made even when no release is in progress. These recommendations are transmitted to government officials using EPIP-03, "NOTIFICATION OF UNUSUAL EVENT Implementing Actions," EPIP-04, "ALERT Implementing Actions," or EPIP-05, "SITE AREA EMERGENCY Implementing Actions," or EPIP-06, "GENERAL EMERGENCY Implementing Actions," depending on level of emergency. 3

3.3 Protective action guides represent trigger levels and are not intended to represent acceptable dose levels.

3.4 PAGs for the general public are given in ranges. The lowest dose values should be used if there are no major local constraints in providing protection at this level. Local constraints may, however, make the lower values impractical to use, but in no case should the higher value be exceeded in determining a need for protective action.

3.5 The projected dose and affected offsite areas depend upon the curies released, release rate, duration of the release, isotopic mixture of the release (varies with effective age) and meteorological conditions.

3.6 At times, selection of protective actions should be considered subjectively as conditions beyond the scope of this procedure exist.

3.7 The protective action recommendation for potential and/or actual loss of physical control of the facility is a 360°, 2 mile evacuation.

3.8 When the wind is blowing into the Palo Verde Hills (sectors N, P or Q) and protective actions are being considered, the two sectors on either side of the affected sector shall be included in the recommendation (e.g., a plume in sector P shall require consideration of sectors M, N, Q and R in the recommendation.)

3.9 Protective actions recommended to state authorities by ANPP SHALL NOT be transmitted to the JENC.

3.10 Government officials should inform EC/EOD prior to implementing protective actions.

3.11 If actual airborne radioactivity, noble gas or iodine sample results are available (either from RMS filter analysis or field measurements) this information may be used instead of dose projections for making protective action recommendations.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 Dose estimates which population groups may potentially receive, are calculated in accordance with EPIP-14B, "Initial Dose Assessment". This dose estimate is referred to as the projected dose. A protective action is an action taken to avoid or reduce this projected dose when the benefits derived from such action are sufficient to offset any undesirable features of the protective action. 3

4.1.2 The Protective Action Guide (PAG) is based on the projected dose to individuals in the population which warrant taking protective actions. It is used in an effort to minimize the risk from an event which is occurring or has already occurred.

4.1.3 The responsibility for the decision to notify and recommend protective actions to the appropriate authorities belongs to the Emergency Coordinator until he is relieved of this responsibility by the Emergency Operations Director.

4.1.4 The Radiation Protection Technician of the affected unit shall be responsible for initial offsite dose calculations and/or projections. 3

4.1.5 The Radiation Assessment Coordinator (Radiation Protection Monitor, on shift) shall be responsible for updating and refining dose assessments for critical receptor site locations and evaluating appropriate protective actions. 3

4.1.6 The Radiological Protection Coordinator (Radiological Assessment Coordinator) shall be responsible for relaying dose assessment and protective action evaluations to the Emergency Coordinator (Emergency Operations Director).

4.2 Prerequisites

4.2.1 Projected whole body and thyroid dose rates and integrated dose for critical receptor site locations have been calculated in accordance with EPIP-14B, and such doses warrant evaluating, and if necessary, recommending protective actions.

4.3 Instructions

4.3.1 Radiological Assessment Coordinator (Radiation Protection Monitor, onshift) shall: 3

4.3.1.1 Evaluate current plant status with respect to potential for releases or increased releases.

4.3.1.2 Update and refine dose estimates for critical receptor site locations upon significant changes in one or more of the following parameters:

(1) Release rates.
(2) Duration of the releases.
(3) Isotopic mixture of the release (varies as a function of effective age).
(4) Meteorological conditions.

4.3.2 Should the plant status or projected doses indicate that sheltering or evacuation be considered per Appendix A, determine the effectiveness of these protective actions as described below. Time estimates should be obtained from the State Emergency Operations Center.

4.3.3 Evacuation Effectiveness - The effectiveness of evacuation in limiting radiation dose is a function of the time of exposure if a plume is present. This is dependent upon the time required to evacuate. The evacuation time T(EV) is expressed as:

$$T(EV) = T_D + T_N + T_M + T_T$$

Where:

T_D = Time delay measured from the point of the protective action recommendation from the facility to government to evacuate to the actual decision by the competent authority to order the evacuation.

T_N = Time required by officials to notify people to evacuate.

T_M = Time required for people to mobilize and get under way.

T_T = Travel time required to leave the affected areas.

4.3.3.1 If evacuation is completed before the plume arrives, then evacuation is 100 percent effective. To determine the time of exposure to the plume, it is necessary to calculate the plume arrival time T(PA). The plume arrival time, T(PA) is expressed as:

$$T(PA) = T_B + T_{TR}$$

Where:

T_B = Time projected before release begins.

T_{TR} = Time projected for plume travel for given windspeed and downwind distances from the start of release. To calculate T_{TR} refer to procedure EPIP-14B.

4.3.3.2 Evaluate constraints against evacuation. Compare the estimated evacuation time T(EV) with the estimated plume arrival time, T(PA).

4.3.3.3 Under the following conditions evaluate the benefits of sheltering vs. the benefits of evacuation.

(1) In cases where there is no time to evacuate prior to the arrival of the plume.

(2) The projected evacuation time and time before plume arrival are nearly equal.

4.3.3.4 If evacuation appears to offer a significant reduction in dose (greater than sheltering) recommend evacuation to the appropriate county and/or state officials.

4.3.4 Sheltering Effectiveness

4.3.4.1 If evacuation does not offer significant dose avoidance or if local constraints prevent evacuation recommend that officials warn the affected population to:

(1) Seek shelter.

(2) Close windows.

(3) Turn off ventilation systems.

(4) Seal cracks in doors with wet rags.

4.3.4.2 Control access to the affected area.

4.3.5 Evaluate the possibility of evacuation after the plume has passed.

4.3.5.1 After the plume has passed, evaluate the significance of ground deposition in accordance with EPIP-17, "Onsite/Offsite Surveys and Sampling".

4.3.5.2 Determine if dose rates are sufficient to warrant subsequent evacuation.

4.3.5.3 Multiply the projected dose by the external shielding factor (Appendix B).

4.3.5.4 Compare the projected dose to the PAG for whole body gamma dose (Appendix A).

4.3.6 Evaluate the significance of inhalation dose. (Shielding factors for inhalation doses are presented in Appendix C). Shielding factors are for a sealed, wood-frame house.

4.3.6.1 Multiply the projected dose by the inhalation shielding factor to determine the reduction in inhalation dose from the plume. Compare the projected dose to the PAG for thyroid dose in Appendix A.

4.3.7 Determine the critical organ of concern, the whole body or the thyroid. Compare the projected dose for the critical organ to the PAG for that organ in Appendix A.

GUIDELINES FOR RECOMMENDED PROTECTIVE ACTIONS FOR GASEOUS PLUME EXPOSURE*

CONDITION	RECOMMENDED ACTION
NON-ESSENTIAL GENERATING COMPLEX PERSONNEL AND GENERAL POPULATION	
1. Notification of Unusual Event declared indicating that events are in progress which indicate potential degradation of the level of safety of the plant; however no release of radioactive material requiring offsite response/monitoring is expected unless further degradation of safety systems occurs.	Inform State & County authorities of status/cause and based on situation recommend that no protective action is necessary or standby for update if situation worsens.
2. An alert has been declared; any releases are expected to be limited to small fractions of the EPA/PAG exposure levels at the site boundary unless further degradation of safety systems occur.	Inform State & County Authorities of Alert status/cause and recommend that the public be apprised of the situation and stay tuned to EBS/KIAR radio station.
3. A Site Area Emergency has been declared; any releases are not expected to exceed EPA/PAG exposure levels beyond the site boundary unless further degradation of safety systems occur.	Inform State & County authorities of Site Area Emergency Status/cause and recommend seeking shelter within a 2 mile radius of the plant and within 10 miles in affected sectors as warranted based on plant/containment conditions.

*NOTE: References for this table are a combination of Table 5.1, page 5.31, Rev. 6/80 - Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and NUREG-0654, published 11/80.

** Affected sectors include, as a minimum, the downwind sector(s) and adjacent sectors. For plumes in sectors P, Q, or N, two sectors on either side of the affected sector shall be included in the recommendation (e.g., a plume in sector P shall require consideration of sectors M, N, Q and R.

PV276-000A (8/82)

GUIDELINES FOR RECOMMENDED PROTECTIVE ACTIONS FOR GASEOUS PLUME EXPOSURE*

CONDITION	RECOMMENDED ACTION
NON-ESSENTIAL GENERATING COMPLEX PERSONNEL AND GENERAL POPULATION	
4. A General Emergency has been declared. (e.g.: Actual/Imminent loss of Physical Facility Control)	Consider a two (2) mile precautionary evacuation.
5. A General Emergency has been declared and large amounts of fission products are in the containment atmosphere. The projected dose using containment area monitor results is calculated to be: a) whole body > 5 rem b) thyroid > 25 rem	In addition to considering a two (2) mile 360° precautionary evacuation, consider a 5 mile downwind evacuation of potentially affected sectors.**
6. A General Emergency has been declared and containment failure leading to a direct atmospheric release is likely in the sequence but not imminent and large amounts of fission products in addition to noble gases are in the containment atmosphere. The projected dose using containment area monitor results is calculated to be: a) whole body > 5 rem b) thyroid > 25 rem	In addition to considering a two (2) mile 360° precautionary evacuation, consider a pre-cautionary 360° evacuation to 5 miles and a downwind evacuation to 10 miles of potentially affected sectors.**

*NOTE: References for this table are a combination of Table 5.1, page 5.31, Rev. 6/80 - Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and NUREG-0654, published 11/80.

** Affected sectors include, as a minimum, the downwind sector(s) and adjacent sectors. For plumes in sectors P, Q, or N, two sectors on either side of the affected sector shall be included in the recommendation (e.g., a plume in sector P shall require consideration of sectors M, N, Q and R.

pcn #1

CONTROLLED DOCUMENT

PV776-000A (9/82)

GUIDELINES FOR RECOMMENDED PROTECTIVE ACTIONS FOR GASEOUS PLUME EXPOSURE*

CONDITION	RECOMMENDED ACTION
NON-ESSENTIAL GENERATING COMPLEX PERSONNEL AND GENERAL POPULATION	
4. A General Emergency has been declared. (e.g.: Actual/Imminent loss of Physical Facility Control)	Recommend shelter within a 2 mile radius and out to 5 miles within potentially affected sectors. Consider a 2 mile precautionary evacuation.
5. A General Emergency has been declared and large amounts of fission products are in the containment atmosphere. The projected dose using containment area monitor results is calculated to be: a) whole body > 5 rem b) thyroid > 25 rem	In addition to considering a two (2) mile 360° precautionary evacuation, consider a 5 mile downwind evacuation of potentially affected sectors.**
6. A General Emergency has been declared and containment failure leading to a direct atmospheric release is likely in the sequence but not imminent and large amounts of fission products in addition to noble gases are in the containment atmosphere. The projected dose using containment area monitor results is calculated to be: a) whole body > 5 rem b) thyroid > 25 rem	In addition to considering a two (2) mile 360° precautionary evacuation, consider a precautionary 360° evacuation to 5 miles and a downwind evacuation to 10 miles of potentially affected sectors.**

*NOTE: References for this table are a combination of Table 5.1, page 5.31, Rev. 6/80 - Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and NUREG-0654, published 11/80.

** Affected sectors include, as a minimum, the downwind sector(s) and adjacent sectors. For plumes in sectors P, Q, or N, two sectors on either side of the affected sector shall be included in the recommendation (e.g., a plume in sector P shall require consideration of sectors M, N, Q and R.

3

GUIDELINES FOR RECOMMENDED PROTECTIVE ACTIONS FOR GASEOUS PLUME EXPOSURE* (CONT'D)

CONDITION	RECOMMENDED ACTION
NON-ESSENTIAL GENERATING COMPLEX PERSONNEL AND GENERAL POPULATION	
7. A General Emergency has been declared and large amounts of fission products other than noble gases in the containment atmosphere and containment failure is judged imminent. The projected dose using containment area monitor results is calculated to be: a) whole body > 5 rems b) thyroid > 25 rems	In addition to considering a two (2) mile 360° precautionary evacuation, consider a precautionary 360° evacuation to 5 miles and a downwind evacuation to 10 miles of potentially affected sectors,** and consider shelter for areas where evacuation cannot be completed before the transport of activity to those areas.
8. An actual release has occurred and the projected dose to individuals in the population is calculated to be: a) 0.5 ≤ whole body < 1 rem b) 1.0 ≤ thyroid < 5 rems	Recommend seeking shelter 360° for two (2) miles and in affected sectors out to 10 miles.
9. An actual release has occurred and the projected dose to individuals in the population is calculated to be: a) whole body > 1 rem to ≤ 5 rems b) thyroid > 5 rems to ≤ 25 rems	Recommend a 360° evacuation for two (2) miles and in affected sectors** out to 10 miles. Recommend seeking shelter 360° out to 10 miles.

*NOTE: References for this table are a combination of Table 5.1, page 5.31, Rev. 6/80 - Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and NUREG-0654, published 11/80.

** Affected sectors include, as a minimum, the downwind sector(s) and adjacent sectors. For plumes in sectors P, Q, or N, two sectors on either side of the affected sector shall be included in the recommendation (e.g., a plume in sector P shall require consideration of sectors M, N, Q and R.

GUIDELINES FOR RECOMMENDED PROTECTIVE ACTIONS FOR GASEOUS PLUME EXPOSURE* (CONT'D)

CONDITION	RECOMMENDED ACTION
EMERGENCY AND EMERGENCY TEAM PERSONNEL	
10. An actual release has occurred and the projected dose to individuals in the population is calculated to be: a) whole body > 5 rems b) thyroid > 25 rems	Recommend a 360° evacuation for five (5) miles and in affected sectors** out to 10 miles. Recommend seeking shelter 360° out to 10 miles.
11. An actual release has occurred and the projected dose to Emergency Team workers is calculated to be: a) whole body > 25 rems b) thyroid > 125 rems	Control exposure of Emergency Team members to these levels except for lifesaving missions (appropriate controls for Emergency Team workers include time limitations and respirators).
12. An actual release has occurred and the projected dose to Emergency Team workers performing lifesaving missions is calculated to be: a) whole body > 75 rems	Control exposure of Emergency Team members performing lifesaving missions to this level (control of time of exposure should be most effective). NOTE: Although respirators should be used where effective to control dose to Emergency Team workers, thyroid dose may not be a limiting factor for lifesaving missions.

*NOTE: References for this table are a combination of Table 5.1, page 5.31, Rev. 6/80 - Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and NUREG-0654, published 11/80.

** Affected sectors include, as a minimum, the downwind sector(s) and adjacent sectors. For plumes in sectors P, Q, or N, two sectors on either side of the affected sector shall be included in the recommendation (e.g., a plume in sector P shall require consideration of sectors M, N, Q and R.

13

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REDUCTION IN EXTERNAL GAMMA DOSE FROM PASSING CLOUD

STRUCTURE OR LOCATION	SHIELDING FACTOR[a] AVERAGE	RANGE
(1) Outside	1.0	--
(2) Vehicles	1.0	--
(3) Wood frame house (no basement)[b]	0.9	--
(4) Basement of wood house	0.6	0.1 to 0.7[c]
(5) Masonry house (no basement)	0.6	0.4 to 0.7[c]
(6) Basement of masonry house	0.4	0.1 to 0.5[c]
(7) Large office or industrial building	0.2	0.1 to 0.3[c,d]

NOTES:

(a) The ratio of the interior dose to the exterior dose

(b) A wood frame house with brick or stone veneer is approximately equivalent to a masonry house for shielding purposes.

(c) This range is mainly due to different wall materials and different geometries.

(d) The reduction factor depends on where the personnel are located within the building (e.g., the basement or an inside room).

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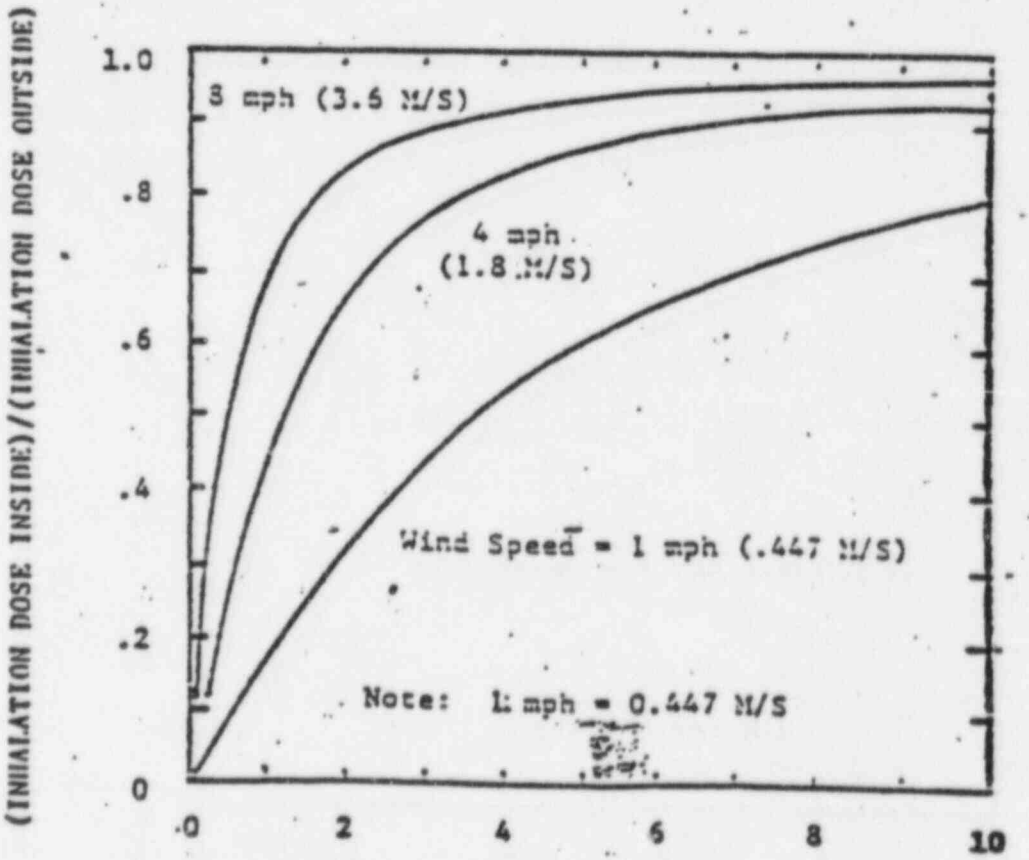
PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-15	APPENDIX C Page 1 of 1
PROTECTIVE ACTION GUIDELINES	REVISION 3	Page 15 of 15

INHALATION SHIELDING FACTORS FOR A WOOD HOUSE,
SNUG DOORS, CLOSED WINDOWS



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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-19	
ONSITE EVACUATION	REVISION 4	Page 1 of 19

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PVNGS ... # 8-9B

DEPT. HEAD Harry F. Bieling for Dennis Gouw DATE 12/4/85
PRB/PRG/TRRG REVIEW [illegible] DATE 1/2/86
APPROVED BY [illegible] DATE 1/6/86
EFFECTIVE DATE 01-16-86

DN-1586A/0188A

PV216-00DA (8/82)

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-19	
ONSITE EVACUATION	REVISION 4	Page 2 of 19

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	05-10-85	4,5,6,7,10, 18	Revised to update references and clarify portions of text of procedure.
4	01/15/86		Deleted Checklists

TABLE OF CONTENTS

APPENDICES

4

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 To provide guideline information pertinent to evacuation of onsite personnel including company, construction, contractors and visitors who are not engaged in emergency response activities.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-04, "ALERT Implementing Actions"

2.1.2 EPIP-05, "SITE AREA EMERGENCY Implementing Actions"

2.1.3 EPIP-06, "GENERAL EMERGENCY Implementing Actions"

2.1.4 EPIP-11, "Technical Support Center/Satellite TSC Activation"

2.1.5 EPIP-20, "Personnel Assembly and Accountability"

2.1.6 EPIP-28, "Personnel Monitoring and Decontamination"

2.1.7 9N219.05.00 "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654 Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

2.2.2 PVNGS Emergency Plan, Rev. 6

2.2.3 ANSI N45.2.9 - 1974, "Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants."

3.0 LIMITATIONS AND PRECAUTIONS

3.1 This procedure should be conducted in an orderly fashion to avoid personnel injury.

3.2 ANPP Medical staff members shall be considered essential personnel and shall not be evacuated.

3.3 Bechtel Fire Team and Medical staff members shall be considered essential personnel and shall not be evacuated.

3.4 Construction Security shall be considered essential personnel and shall not be evacuated.

3.5 Any documentation generated as a result of implementing this procedure shall be submitted to the Radiological Protection Coordinator upon event termination and forwarded to the Emergency Planning and Preparedness Dept. for retention in accordance with 9N219.05.00 "Document/Record Turnover Control."

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 In the event of an emergency at PVNGS, it may be desirable to send persons home before there is an uncontrolled release of radioactive material. Such cases may be treated as early dismissal from work and subject only to Section 4.3.1 of this procedure. Notification of such dismissal shall come from the Emergency Coordinator and should be passed down the supervisory chain to accomplish an orderly sequence of dismissal. Security shall provide traffic control.

4.1.2 The remainder of this procedure applies in the event of evacuations where persons may be contaminated and is addressed in Section 4.3.2 of this procedure.

4.1.3 Assembly and accountability per EPIP-20, "Personnel Assembly and Accountability," shall be accomplished prior to any evacuation.

4.1.4 The Emergency Coordinator is responsible for determining the need for onsite evacuation, the offsite reassembly area evacuation routes, and the order of evacuation from various parking lots.

4.1.5 The Security Director is responsible for conducting the evacuation.

CONTROLLED DOCUMENT

4.2 Prerequisites

4.2.1 A SITE AREA EMERGENCY or GENERAL EMERGENCY has been declared or the Emergency Coordinator has determined that the condition warrants evacuation of non-essential personnel.

4.2.2 Assembly and accountability have been completed per EPIP-20 and all groups of non-essential personnel are at their assembly areas awaiting evacuation instructions.

4.3 Instructions

NOTE

Accountability shall be completed per EPIP-20 prior to early dismissal.

4.3.1 Early Dismissal

4.3.1.1 The Emergency Coordinator may determine that it is desirable to send persons home before there is a danger of radiation exposure.

4.3.1.2 The Emergency Coordinator shall direct the Security Director to inform all Assembly Area Supervisors who shall in turn inform their groups.

4.3.1.3 The preferred order of notification and early dismissal shall be as follows:

(1) Visitor's Center
(2) Bechtel and subcontractor manuals
(3) Bechtel and subcontractor non-manuals
(4) ANPP/Bechtel Start-up
(5) ANPP Construction
(6) PVNGS Nuclear Operations

4.3.1.4 The ANPP Medical Staff and Bechtel Fire Team and Medical Staff shall not be dismissed early. The Fire Team shall report to its equipment building and await further instruction. The Medical Staffs shall report to their First Aid Stations and await further instruction.

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4.3.1.5 Construction Security shall not be dismissed early. They shall report to their duty stations and await instructions.

4.3.1.6 PVNGS Nuclear Operations technical and training personnel shall be directed to report to the offsite reassembly area rather than go home so that they may be recalled if their support is needed.

4.3.2 The Emergency Coordinator shall:

NOTE

The instructions provided below have been incorporated into the Emergency Coordinator's responsibilities found in EPIP-05, "SITE AREA EMERGENCY Implementing Actions," or EPIP-06, "GENERAL EMERGENCY Implementing Actions."

4.3.2.1 Determine if an evacuation is required per the level of emergency classification or if onsite evacuation is otherwise desirable.

4.3.2.2 Consult with the Radiological Protection Coordinator (or Radiation Protection Monitor) and determine the appropriate offsite assembly area and evacuation route (See Section 4.3.9 of this procedure).

4.3.2.3 Determine the necessity to reassemble emergency personnel in the Operations Support Center and Service Building into one of the protected facilities, i.e., the CR/STSC, Technical Support Center or Emergency Operations Facility.

4.3.2.4 Consult with the Security Director to assure that traffic control and other activities are sufficiently advanced to allow proper evacuation.

4.3.2.5 Order the Shift Supervisor to sound the emergency siren to signal evacuation and make a PA announcement with specific instructions.

4.3.3 The Security Director shall:

NOTE

The information provided below has been incorporated into the Security Director's responsibilities found in EPIP-11, "Technical Support Center/Satellite TSC Activation."

4.3.3.1 Contact the Maricopa County Sheriff's Office by dedicated telephone or radio to request assistance as required.

4.3.3.2 Inform the Sheriff's Office of the designated offsite reassembly area (Palo Verde Inn or Hassayampa Pump Station) once that is determined by the Emergency Coordinator.

4.3.3.3 Request Sheriff's Office assistance with traffic control at the offsite reassembly area.

4.3.3.4 Arrange for an orderly sequence of evacuation.

4.3.3.5 Direct the Security Force to routinely check ANPP trailers and buildings in the Administration area outside the protected area to ensure all non-essential personnel have left the premises.

4.3.3.6 Direct Corporate Site Security to check the Visitor's Center and associated areas.

4.3.3.7 Contact the Evacuation Team Leader at the offsite reassembly area to determine if any emergency supplies are needed. The Administrative and Logistics Coordinator shall arrange for any needed supplies.

4.3.3.8 Provide periodic reports on evacuation status to the Emergency Coordinator.

4.3.4 Radiological Protection Coordinator

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NOTE

The instructions provided below have been incorporated into the Radiological Protection Coordinator's responsibilities found in EPIP-11. 4

4.3.4.1 The Radiological Protection Coordinator shall assist the Emergency Coordinator in determining the appropriate offsite reassembly area and evacuation route.

4.3.4.2 Palo Verde Inn should be selected as the offsite reassembly area unless the conditions warrant use of an alternative. In that case, Hassayampa Pump Station should be used. Appendix B contains the evacuation routes to the two offsite reassembly areas.

4.3.4.3 Provide guidance to the Radiation Monitoring team at the reassembly area as requested.

4.3.5 Radiation Monitoring Team shall:

4.3.5.1 Perform monitoring and decontamination as per Appendix C.

4.3.5.2 Take direction from the Radiological Protection Coordinator and proceed to the offsite reassembly area.

4.3.5.3 Establish a monitoring point and, if necessary, a decontamination area in accordance with EPIP-28, "Personnel Monitoring and Decontamination."

4.3.5.4 Monitor and clear all individuals and vehicles before release. Names and addresses of evacuees suspected of having received a dose in excess of 250 mrem or those requiring any decontamination shall be obtained before the evacuees are allowed to leave the reassembly area.

4.3.5.5 Periodically inform the Radiological Protection Coordinator of the progress of monitoring and decontamination efforts.

4.3.6 Evacuation Team Leader shall:

4.3.6.1 Be a member of the Security Force appointed by the Security Director.

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4.3.6.2 Report to the Bechtel Gate No. 1 and await the evacuation signal. When the signal is given, he shall lead the evacuating group to the offsite reassembly area.

4.3.6.3 Direct arriving groups to assembly areas at the offsite reassembly area, per Section 4.3.9.1. or 4.3.9.2. He should use arriving Assembly Area Supervisors for assistance.

4.3.6.4 Assist the Radiation Monitoring Team, as necessary, in the logistics of monitoring and decontamination. He shall assure that no individual or vehicle leaves the reassembly area until cleared by that team.

4.3.6.5 Provide periodic progress reports and direct requests for resources, if necessary, to the Security Director.

4.3.7 Assembly Area Supervisors shall:

4.3.7.1 Receive instructions on impending evacuation from the Emergency Coordinator via P.A. announcements and pass along to the assembly area group.

4.3.7.2 Release his group to enter personal vehicles or buses once the evacuation signal is given.

4.3.7.3 Report to the Evacuation Team Leader at the offsite reassembly area and assist him as necessary.

4.3.8 Evacuating Personnel shall:

4.3.8.1 Wait at their assembly areas until the evacuation signal is given as shown in Appendix A.

4.3.8.2 Take direction from Assembly Area Supervisors and Security Force members during evacuation.

4.3.8.3 Proceed as follows when the evacuation signal is given:

(1) Personnel using their personal vehicles shall proceed at an orderly pace to the site exit gates and follow the Evacuation Team Leader.

(2) Personnel using buses shall line up at the pick-up point and fill each bus as it pulls up to the pick-up point.

4.3.8.4 Proceed to the offsite reassembly area and take direction from the Evacuation Team Leader.

4.3.8.5 Remain at the offsite reassembly area until cleared to leave by the Radiation Monitoring Team.

4.3.9 Offsite Reassembly Areas and Evacuation Routes

NOTE

At no time shall buses or personal vehicles block the fire station next to the Palo Verde Inn. A clear path shall be kept open for the emergency vehicles located at the station.

NOTE

No personnel may be allowed inside the Palo Verde Inn without approval of the Evacuation Team Leader.

4.3.9.1 The primary offsite reassembly area shall be Palo Verde Inn. Personal vehicles shall be directed into parking lots around the Palo Verde Inn. Buses shall be unloaded outside the parking lot. Personnel shall remain at their vehicles or where they are unloaded.

4.3.9.2 The alternate offsite assembly area shall be the Hassayampa Pump Station. This should be used only if meteorological conditions require an alternate to the Palo Verde Inn. The Evacuation Team Leader shall assign assembly locations upon arrival.

4.3.9.3 Appendix B contains the evacuation routes to the two areas.

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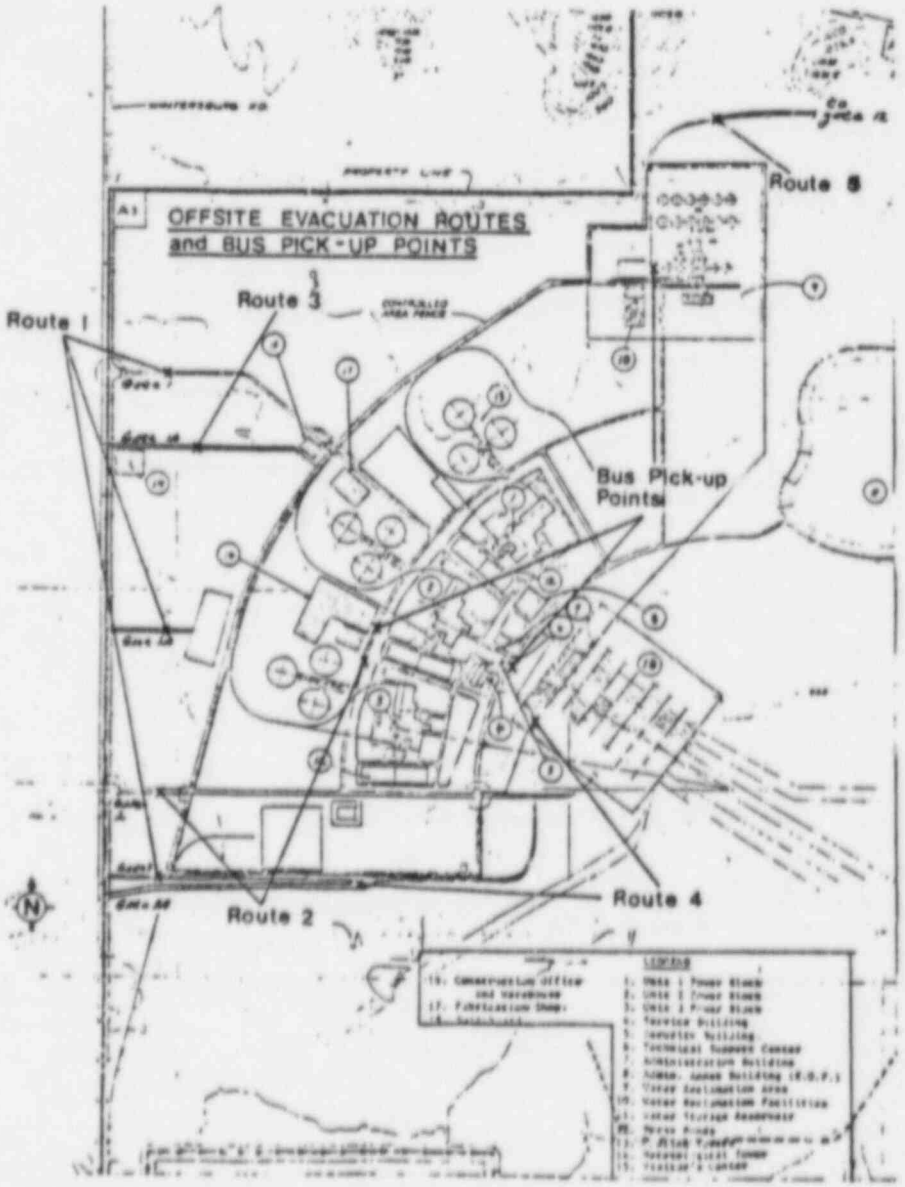
PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-19	APPENDIX A Page 1 of 1
ONSITE EVACUATION	REVISION 4	Page 12 of 19



OFFSITE REASSEMBLY AREAS AND EVACUATION ROUTES

Directions to Primary Offsite
Reassembly Area (Palo Verde Inn)

Primary Route

(1) Exit Plant Site and proceed North on Wintersburg Road to intersection of Wintersburg Road and Buckeye - Salome Highway.

(2) At the intersection turn left.

(3) Follow Buckeye - Salome Highway (West) to turn-off to Tonopah (411th Ave.).

(4) At turn-off, turn right (North) and proceed to the Palo Verde Inn.

Alternate Route

(1) Exit Plant Site and proceed north on Wintersburg Road to Interstate 10 (I-10).

(2) Turn left onto I-10 (West).

(3) Follow I-10 to the Tonopah Exit.

(4) Turn left off of I-10 onto 411th Ave.

(5) Follow 411th Ave to the Palo Verde Inn.

OFFSITE REASSEMBLY AREAS AND EVACUATION ROUTES

Direction to the Alternate Offsite Reassembly Area (Hassayampa Pump Station)

Primary Route

(1) Exit Plant Site and Proceed south on Wintersburg Road to the intersection of Wintersburg Road and Elliot Road.

(2) At the intersection turn left (East) onto Elliot Road and proceed to 355th Avenue.

(3) At 355th Avenue, turn left (North) onto 355th and proceed to Dobbins Road.

(4) At Dobbins Road turn right (East) onto Dobbins and proceed to 351st Avenue.

(5) At 351st Avenue turn left (North) and proceed to the Buckeye - Salome Highway.

(6) At the Buckeye - Salome Highway turn right (East) and proceed to the intersection of Buckeye - Salome Highway and Baseline Road.

(7) At Baseline Road, turn left (angle turn) and follow Baseline to Johnson Road.

(8) At Johnson Road turn right (South) onto Johnson and proceed to Lower River Road.

(9) At Lower River Road turn right (West) and proceed to the pump station.

Alternate Route

(1) Exit Plant Site and proceed South on Wintersburg Road to Elliot Road.

(2) At Elliot Road turn left (East) and proceed to 355th Avenue.

(3) At 355th Avenue turn left (North) and go to Dobbins Road.

(4) At Dobbins Road turn right (East) and proceed to the Buckeye Salome Highway.

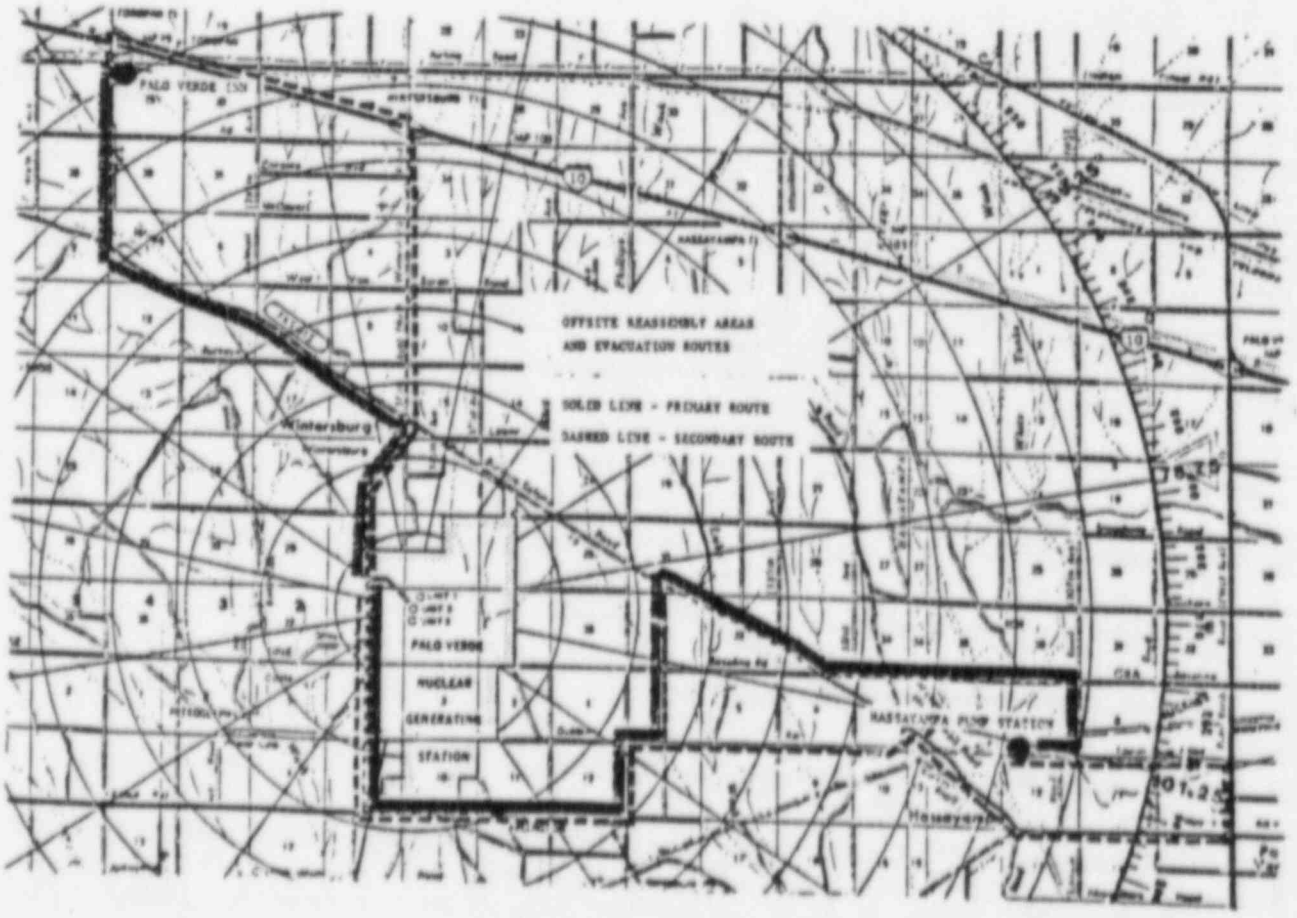
Alternate Route (continued)

(5) At the Buckeye - Salome Highway turn right and proceed to Old Highway 80.

(6) At Old Highway 80 Turn left (East) and proceed to Palo Verde Road.

(7) At the Palo Verde Road turn left (North) and go to Lower River Road.

(8) At the Lower River Road turn left (West) and proceed to the pump station.



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OFFSITE REASSEMBLY AREA
RADIATION MONITORING TEAM
RESPONSE

POSITION FILLED BY: Radiation Protection Technicians

RESPONSIBILITIES: Perform monitoring and decontamination of evacuated personnel as necessary at the offsite reassembly area.

IMMEDIATE ACTIONS

1. Receive initial briefing from Radiological Protection Coordinator.

2. Obtain the "Emergency Evacuation Decontamination Kit" from the Security Desk of Annex Building, or obtain the necessary monitoring and decontamination supplies from the Radiation Protection Office per EPIP-28, "Personnel Monitoring and Decontamination." (Use OSC, TSC, EOF Emergency Kits if Radiation Protection Office is not accessible)

3. Arrange for a vehicle for transport to the offsite reassembly area.

4. Proceed directly to offsite reassembly area (see Appendix B) and establish a monitoring control point.

SUBSEQUENT ACTIONS

5. Monitor and clear all evacuated personnel and vehicles.

6. Establish decontamination area and decontaminate per EPIP-28, if necessary.

7. Obtain names and addresses of evacuees suspected of having received a dose in excess of 250 mrem or those requiring any decontamination before release.

8. Periodically inform by telephone (or Evacuation Team Leader radio) the Radiological Protection Coordinator of the progress of monitoring and decontamination.

PERSONNEL MONITORING LIST

Person Monitored	Social Security Number	Monitor Reading	Disposition

4

EVACUATION TEAM LEADER
RESPONSE

POSITION FILLED BY: Security Force Member

RESPONSIBILITIES: Lead the evacuating group to the offsite reassembly area, exercise control at the area, report status to Security Director.

IMMEDIATE ACTIONS

1. Receive initial briefing from the Security Director.
2. Obtain Security vehicle and portable radio and transport Security Team to Bechtel Gate No. 1.
3. Upon sounding of the evacuation signal, lead the evacuating vehicles to the offsite reassembly area (see Appendix B).

SUBSEQUENT ACTIONS

4. Direct arriving groups to appropriate assembly points at the offsite reassembly area.

NOTE

At the Palo Verde Inn, personal vehicles shall be directed into parking lots around the Inn. Buses shall unload outside the parking lot. Personnel shall remain at their vehicle or where they unload. At the Hassayampa Pump Station, the Evacuation Team Leader shall assign assembly locations on arrival.

5. Brief arriving Assembly Area Supervisors to provide you with assistance.
6. Assist the Radiation Monitoring Team with logistics, as appropriate.
7. Assure that no individual or vehicle leaves the reassembly area until cleared by the Radiation Monitoring Team.

4

EVACUATION TEAM LEADER
RESPONSE

SUBSEQUENT ACTIONS (Cont'd)

8. Periodically inform the Security Director as to progress using telephone or portable radio.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-20	
PERSONNEL ASSEMBLY AND ACCOUNTABILITY	REVISION 4	Page 1 of 28

DEPT. HEAD Harry F. Bailey - for Dennis Kelly DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1588A/0180A

CONTROLLED DOCUMENT

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	2/13/85	ALL	Total Revision: Deleted protected area only accountability. Gave Shift Supervisor option of accountability at alert. Revised Appendices.
4	01-15-86	3,8,11,12,13 14,18,19	Deleted Checklist Requirements. ANPP Startup Assembly Area changed to SUMS building.

TABLE OF CONTENTS

APPENDICES

4

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 To assemble all personnel in the event of an emergency at PVNGS in order to facilitate notification, accountability and subsequent evacuation, if necessary.

1.2 To account for the whereabouts of all personnel within the protected area within 30 minutes from the time the accountability signal is activated.

1.3 To account for the whereabouts of all other personnel onsite as soon as practicable (generally within one hour) after the accountability signal is activated.

1.4 To maintain personnel accountability for the duration of the emergency condition.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-02, "Emergency Classification"

2.1.2 EPIP-05, "SITE AREA EMERGENCY Implementing Actions"

2.1.3 EPIP-06, "GENERAL EMERGENCY Implementing Actions"

2.1.4 EPIP-11, "Technical Support Center/Satellite TSC Activation"

2.1.5 EPIP-19, "Onsite Evacuation"

2.1.6 EPIP-21, "Search and Rescue"

2.1.7 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

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2.2.2 PVNGS Emergency Plan, Rev. 6

2.2.3 ANSI N45.2.9-1974, "Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants."

2.2.4 Bechtel's PVNGS Pre-evacuation Assembly Plan, Rev. 4

3.0 LIMITATIONS AND PRECAUTIONS

3.1 If a breach of security exists, Security Force personnel shall also implement appropriate PVNGS Security Plan Implementing Procedures.

3.2 Personnel performing critical operations such as fire fighting, assisting injured personnel, or work which if left unattended could endanger the lives or safety of personnel, do not need to immediately report to their assembly area. However, they should do one of the following:

(1) Secure the operation to a safe condition as rapidly as possible and then proceed to their assembly area.

(2) If the operation will take more than five minutes to secure, notify the Security Shift Captain at ext. [redacted]

3.3 All Public Address announcements shall be made via the plant wide telephone page [redacted] and the Site Warning Siren/Public Address System.

3.4 The Security Shift Captain shall collect Appendix C from Assembly Area Supervisors and submit these sheets ~~along with Appendix B~~ to the Emergency Planning Department for forwarding to DDC in accordance with 9N219.05.00, "Document/Record Turnover Control." 4

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 Assembly and accountability of all onsite personnel is mandatory for an emergency classified as SITE AREA or GENERAL EMERGENCY. The Emergency Coordinator at his discretion may order assembly and accountability for emergencies of a lower classification.

4.1.2 The purpose of assembly is to gather together all site personnel to notify them of the emergency situation and is the first step in the accountability and evacuation procedures. Accountability is required to identify any missing individuals for safety and security purposes. Evacuation is covered in EPIP-19, "Onsite Evacuation."

4.1.3 The primary method of accounting for personnel located in the protected area is by means of the Access Control System. This system requires use of a card-key to enter and exit the protected area and to move through various sections of the protected area. If this system is operable, accountability may be accomplished for the protected area by means of computer printouts. If inoperable, a backup system is provided in section 4.3.13.

4.1.4 The method of accountability for all Bechtel, Bechtel Subcontractors and visitors is described in Appendix F, "Bechtel's PVNGS Pre-Evacuation Assembly Plan" and shall be implemented by the Bechtel Field Constuction Manager.

4.1.5 The method of accountability for all other personnel onsite but outside the protected area is by a sweep search to ensure that all personnel have left their normal work areas and have reported to their assembly areas.

4.1.6 The Shift Supervisor (or Emergency Coordinator) is responsible for determining the need for assembly and accountability, activating the appropriate signal and providing immediate instructions for assembly.

4.1.7 EACH PERSON ONSITE IS RESPONSIBLE FOR KNOWING HIS OR HER ASSEMBLY AREA AND REPORTING TO THAT AREA AS QUICKLY AS POSSIBLE. Appendix A presents a listing of the various groups at the site and their predetermined assembly areas. Appendix E presents a map of all assembly areas onsite.

4.1.8 The Security Director is responsible for activating the Security Force to assist in accountability, assessing accountability data as it is received and reporting status to the Emergency Coordinator.

4.1.9 The Security Shift Captain is responsible for receiving and logging accountability reports from Assembly Area Supervisors.

4.1.10 Assembly Area Supervisors are responsible for completing the accountability procedure at their assigned area and reporting results to the Security Shift Captain. Appendix A presents a list of the Assembly Area Supervisors.

4.1.11 Once assembly and accountability are complete, the Emergency Coordinator may proceed as follows, depending on the situation:

(1) Should it be determined after assembly and accountability that personnel may return to normal activities, the Emergency Coordinator shall sound the all-clear signal.

(2) If evacuation is necessary after assembly and accountability, the evacuation signal shall be activated.

4.2 Prerequisites

4.2.1 The Shift Supervisor has completed the emergency classification process per EPIP-02, "Emergency Classification" and has determined that assembly and accountability are mandatory because of the classification level or is otherwise desirable.

4.3 Site Area Assembly and Accountability Instructions

4.3.1 The Shift Supervisor shall:

4.3.1.1 Sound the accountability signal and provide the appropriate announcement over the plantwide and site wide page per EPIP-05, "SITE AREA EMERGENCY Implementing Actions," or EPIP-06, "GENERAL EMERGENCY Implementing Actions."

4.3.2 The Emergency Coordinator shall:

NOTE

The instructions provided below have been incorporated into the Emergency Coordinator's responsibilities found in EPIP-05 or EPIP-06 as required.

4.3.2.1 Receive a report from the Security Director within 30 minutes on protected area accountability and as soon as practicable (generally within one hour) after that for site accountability.

4.3.2.2 Be prepared to implement EPIP-19 and/or EPIP-21, "Search and Rescue," as appropriate upon receipt of the accountability report.

NOTE

The Emergency Coordinator shall be immediately informed if an assembly area outside of the protected area appears likely to exceed 2mR/hr.

4.3.3 The Security Director shall:

NOTE

The instructions provided below have been incorporated into the Security Director's responsibilities found in EPIP-11, "Technical Support Center/Satellilte TSC Activation."

4.3.3.1 If necessary, instruct the Security Shift Sergeant to assume the duties of the Security Shift Captain at the Security Building.

4.3.3.2 Inform the Security Access Point (plant telephone [redacted]) and Craft Access Point Guards (plant telephone [redacted]) that site area assembly and accountability is in progress and to assist exiting personnel. Inform them to require all personnel leaving the protected area to use the card reader properly to assure accountability.

4.3.3.3 If radiological conditions require ANPP Operations personnel to leave the protected area via the Craft Access Point during offshifts (nights and holidays), instruct the Security Shift Captain to request Construction Security to unlock the Visitor's Center.

4.3.3.4 Direct the Security Shift Captain to contact the Maricopa County Sheriff's Office by dedicated telephone or radio to request assistance at the corner of Wintersburg Road and Buckeye/Salome Highway north of the plant and Wintersburg Road and Elliot (Ward) Road south of the plant in preparation for possible evacuation following accountability.

4.3.3.5 Obtain a printout for the protected area from the Access Control System Computer approximately 20 minutes after the accountability signal has sounded.

4.3.3.6 Cross check names and badge (ACAD) numbers with the Security Shift Captain who receives reports of protected area accountability from:

(1) Unit Control Room/Satellite TSC

(2) Technical Support Center

(3) Unit Operations Support Center

(4) Service Building

(5) CAS/SAS Operators

4.3.3.7 Provide the names and badge (ACAD) numbers of missing individuals and their last known locations to the Emergency Coordinator.

4.3.3.8 Inform the Emergency Coordinator of protected area accountability status within 30 minutes.

NOTE

The site area accountability reports are VERBAL reports which indicate the sweep searches have been performed and gives the results of these searches.

4.3.3.9 After protected area accountability is completed, the Security Director shall work with the Security Shift Captain who receives telephone reports of site area accountability from the following:

(1) Visitor's Center

(2) Water Reclamation Facility

(3) Emergency Operations Facility

(4) Bechtel Emergency Control Center

4.3.3.10 Inform the Emergency Coordinator of site area accountability status as practicable (generally within one hour).

4.3.3.11 Instruct the Security Shift Captain to dispatch a security team to routinely check the Administration Building, the Annex Building (excluding the cafeteria and the EOF assembly areas) and the trailer areas to ensure that they are not occupied. If any area is occupied, the security team shall inform the personnel to report to the nearest assembly area.

4.3.3.12 Arrange to receive Individual Accountability Sheets (Appendix C) for each protected area assembly point as soon as practical.

4.3.4 The Security Shift Captain shall:

NOTE

The instructions provided below have been incorporated into the Security Shift Captain's responsibilities found in Appendix B.

4.3.4.1 Be located at the Security Building with IMMEDIATE access to telephone [redacted]

4.3.4.2 Compile accountability reports for the protected area within 20 minutes.

4.3.4.3 If protected area accountability reports are not received within 20 minutes of the accountability signal, attempt to contact assembly areas that have not reported.

4.3.4.4 Use these reports and the computer printout from the Access Control System to account for each person in the protected area.

4.3.4.5 Send a Security Force member with radio to the Firing Range to notify any personnel of the emergency and to obtain accountability data. The same Security Force member shall notify any personnel in the switchyard to report to the Administration Annex Building Cafeteria.

4.3.4.6 Report names and badge (ACAD) numbers of missing individuals in the protected area and their last known locations to the Security Director as soon as they become known.

4.3.4.7 Compile accountability reports for the assembly areas outside the protected area as soon as practicable and report results to the Security Director.

4.3.5 Security Personnel

4.3.5.1 Upon activation of the accountability signal, all security personnel shall be contacted by the Central Alarm Station or Secondary Alarm Station Operators for accountability and further instructions.

4.3.6 Protected Area Personnel

4.3.6.1 Upon activation of the accountability signal, personnel in the protected area shall await instruction via P.A. announcement from the Shift Supervisor or the Emergency Coordinator concerning routes to assembly areas or areas to avoid.

4.3.6.2 Personnel assigned to the affected unit with primary or alternate responsibilities in the Emergency Organization shall report to their assigned emergency location as soon as possible. Personnel outside the protected area who must enter the protected area to assume their emergency position shall report to the Security Access Point and follow normal entry procedures.

NOTE

If the Emergency Coordinator directs all personnel to leave by the Craft Access Point, this group shall do so and then shall assemble at the Visitor's Center.

4.3.6.3 ANPP Nuclear Operations personnel, their contractors and visitors with no responsibilities in the emergency organization shall leave the protected area via the Security Access Point and report to the appropriate assembly area in the Administration Annex Building Cafeteria (see Appendix D). The senior individual present or the assigned Security Guard shall serve as Assembly Area Supervisor.

NOTE

If the Emergency Coordinator directs all personnel in Steps 4.3.6.4 and 4.3.6.5 to leave by the Security Access Point, they shall do so and then shall assemble at the ANPP Operations parking lot.

4.3.6.4 ANPP Nuclear Construction/Site Corporate Quality Assurance personnel, their contractors and visitors shall leave the protected area via their normal access points and report to their automobile parking lot or bus pickup point.

4.3.6.5 Bechtel personnel, subcontractors and visitors shall leave the protected area via their normal access points and report to their automobile parking lot or bus pickup point.

4.3.6.6 ANPP Startup personnel, subcontractors and visitors shall leave the protected area via their normal access points and report to the SUMS building south parking lot (assembly area telephone number - ext. [redacted]) 4

4.3.7 Site Area Personnel

4.3.7.1 Upon activation of the accountability signal, personnel onsite but outside the protected area shall report to their assigned assembly areas.

4.3.7.2 ANPP Nuclear Operations personnel, subcontractors and visitors without responsibilities in the Emergency Organization shall report to their appropriate assembly area in the Administration Annex Building Cafeteria.

4.3.7.3 ANPP Nuclear Construction/Site Corporate Quality Assurance personnel, subcontractors and visitors shall report to their automobile parking lot or bus pickup point.

4.3.7.4 Bechtel Personnel, subcontractors and visitors shall report to their automobile parking lot or bus pick-up points.

4.3.7.5 Water Reclamation Personnel shall report to the WRF conference room.

4.3.7.6 Visitor's Center Staff and visitors shall report to the Visitor's Center.

4.3.7.7 Bechtel First Aid and Fire Team personnel shall assemble at the Safety Office.

4.3.7.8 ANPP Start-Up personnel shall assemble at the SUMS building south parking lot (assembly area telephone number - ext. [redacted]) 4

4.3.8 Assembly Area Supervisors

4.3.8.1 Assembly Area Supervisors within the Protected Area shall complete the Individual Accountability Sheet (Appendix C) for personnel who have arrived. The information on the sheet shall be called into the Security Shift Captain by plant telephone at [redacted] or sent to the Security Building by runner within 20 minutes.

4.3.9 Site Area Accountability

NOTE

If a release has occurred or is imminent, the Emergency Coordinator shall implement EPIP-21 to perform these searches.

4.3.9.1 Accountability of personnel onsite but OUTSIDE the protected area should be accomplished by a physical search of areas outside the protected area.

4.3.9.2 ANPP Nuclear Construction Manager shall dispatch search teams to ensure that all ANPP Nuclear Construction/Site Corporate Quality Assurance personnel have left their work areas and reported to their automobile parking lot or bus pickup point.

4.3.9.3 Bechtel Field Construction Manager shall implement Appendix F to ensure that all Bechtel personnel have left their work stations and reported to their automobile parking lot or bus pickup point.

4.3.9.4 ANPP Startup Administrative/Technical Group Manager shall dispatch search teams to ensure all ANPP startup personnel have left their work stations and reported to the SUMS building south parking lot. 4

4.3.9.5 The search teams shall make a search of all areas outside the protected area. Any individual found shall be informed to report to their respective assembly area. If any person is found injured, the search team shall immediately notify the Emergency Coordinator at plant telephone [redacted] and administer first aid as appropriate. After completion of the search the teams shall report to their respective managers that all areas are clear.

4.3.10 Protected Area Missing Individual Accountability Search

4.3.10.1 The Emergency Coordinator shall implement EPIP-21 to locate missing individuals who may be in the protected areas.

4.3.11 Evacuation

4.3.11.1 The Emergency Coordinator shall implement EPIP-19 if evacuation is required.

4.3.12 Bomb Threat

NOTE

Distances noted below are minimum distances. To ensure the greatest margin of safety, go to the maximum distance attainable.

4.3.12.1 Alternate (outdoors) assembly areas to be used in the event of a bomb threat.

(1) Administration Annex Building - Open space 600 feet northeast of building.

(2) ANPP Construction Office - Adjacent to vans in van pool area.

(3) Water Reclamation Office - Open space 300 feet southwest of office.

(4) Visitor's Center - Open space 300 feet southwest of building.

4.3.13 Access Control System Inoperable

If the Access Control System computer or card-readers are inoperable, the accountability system shall be indentical to the instructions provided in sections 4.3.3 through 4.3.8 except:

(1) At exit turnstiles, security guards shall collect security badges in containers to be transported to the Security Shift Captain for accountability.

(2) The Security Shift Captain shall use the badge racks and the Assembly Area Supervisor reports to complete protected area accountability in place of the computer printout.

4.4 Emergency Situation Terminated

4.4.1 The Emergency Coordinator (or Shift Supervisor) shall carry out the appropriate termination actions as per EPIP-05 or EPIP-06.

ASSEMBLY AREA/GROUPS

	Assembly Group	Assembly Area	Assembly Area Supervisor	Accountability Method	Accountability Time Schedule	Assembly Area Telephone No.
1.	Control Room/SFSC Emergency Staff	Control Room/SFSC	a. Assistant Shift Supervisor b. Nuclear Operator	Supervisor knowledge	Within 20 min.	[redacted]
2.	Technical Support Center Emergency Staff	TSC	Onshift a. Tech. Engineering Coordinator (Shift Systems Engineer) Onsite a. Personnel Resources Coordinator b. Hazard Control Coordinator	Assembly Area Supervisor log incoming personnel and report to Security	Within 20 min.	
3.	Operations Support Center Emergency Staff	OSC	a. OSC Coordinator b. Repairs Coordinator	Assembly Area Supervisor log incoming personnel and report to Security	Within 20 min.	
4.	Service Building Emergency Staff	Service Building (Alt. OSC)	a. Mech. Coordinator b. I&C Coordinator	Assembly Area Supervisor log incoming personnel and report to Security	Within 20 min.	
5.	Security Personnel	Not Applicable	Security Shift Captain	Report accountability to CAS/SAS via radio/telephone	Within 20 min.	
6.	ANPP Nuclear OPS Assigned to Protected Area but not assigned responsibility in the Emergency Response Organization	Admin. Annex Bldg. Cafeteria (or Visitor's Center if so directed)	Assigned Security Guard or Senior individual present	Access Control System Computer/ Card-Readers	Within 20 min.	

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PV716-00A (8/82)

ASSEMBLY AREA/GROUPS

Assembly Group	Assembly Area	Assembly Area Supervisor	Accountability Method	Accountability Time Schedule	Assembly Area Telephone No.
7. ANPP Startup Personnel inside protected area.	SUMS Building south parking lot.	Group Managers System Computer/Card-Readers	Access Control	Within 20 min.	
8. All other ANPP Startup Personnel	SUMS Building south parking lot.	Group Managers	Accountability Sweep Search	As soon as practicable	
9. All other personnel inside protected area: ANPP Construction, Bechtel, Subcontractors, etc.	Automobile Parking Lot or Bus pickup point	Group Managers System Computer/ Card-Readers	Access Control	Within 20 min.	
10. All ANPP Nuclear Operations personnel outside protected area	Admin. Annex Bldg. Cafeteria (or Visitors Center if so instructed)	Assigned Security Guard or Senior Individual present	Accountability Sweep Search	As soon as practicable	
11. All other personnel outside protected area: ANPP Construction, Bechtel, Subcontractors, etc.	Automobile Parking lot or bus pickup point	Group Manager	Accountability Sweep Search or Bechtel Pre-Evacuation	As soon as practicable	
12. Visitor's Center Staff & Visitors	Visitor's Center	Visitor's Center Director	Director Knowledge	As soon as practicable	
13. ANPP Water Reclamation Personnel	WRF Conference Room Lunch Room	A. Administrative Specialist B. WRF Lead Chemist C. WRF Chemist	Accountability Sweep Search	As soon as practicable	
14. Emergency OPS Facility Staff	EOF (Annex Basement)	A. Security Coordinator B. Admin. & Logistics Coordinator	Assembly Area Supervisor Check against emergency roster	As soon as practicable	
15. Bechtel First Aid and Fire Team Personnel	Bechtel Safety Office	Safety Supervisor	Bechtel Pre-Evacuation Assembly Plan	As soon as practicable	

4

APPENDIX B

SECURITY SHIFT CAPTAIN
RESPONSE

POSITION FILLED BY

1. Security Shift Captain
2. Security Shift Sergeant (alternate)

RESPONSIBILITIES

1. Obtain accountability reports from Assembly Area Supervisors.

2. Assist Security Director with accountability tasks as appropriate.

3. Serve as Assembly Area Supervisor for Security Force.

IMMEDIATE ACTIONS

1. Report to Security Building and man the accountability phone lines (ext. [redacted]).

2. Account for Security Force members at fixed posts and on patrols from CAS and SAS accountability checks.

3. Send Security Force member to the Firing Range to notify and obtain accountability data. The same guard shall notify switchyard personnel to report to the Administration Annex Building Cafeteria.

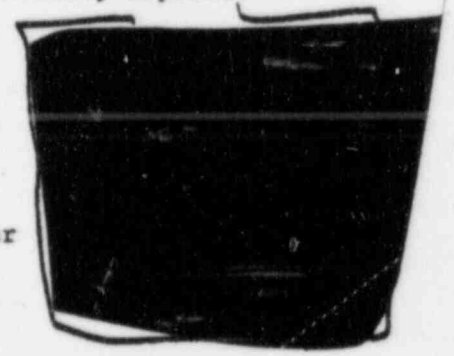
4. Contact all protected area Assembly Area Supervisors who have not called in within 20 minutes and obtain Accountability Reports.

   (1) Unit #1 Control Room/STSC

   (2) Technical Support Center

   (3) Unit #1 Operations Support Center

   (4) Service Building



4

5. Use reports and computer printout to account for all protected area personnel within 30 minutes.

6. Report names and badge (ACAD) numbers of protected area missing individuals to Security Director [redacted] as they become known.

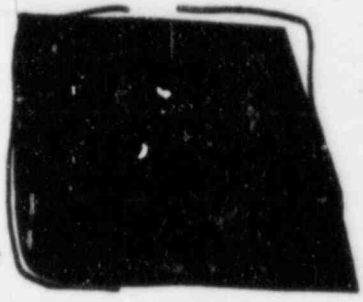
7. Contact all site Assembly Area Supervisors who have not reported in a timely manner and receive accountability status for each.

   (1) Water Reclamation Facility

   (2) Visitor's Center

   (3) Emergency Operations Facility

   (4) Bechtel Emergency Control Center



8. Dispatch a Security Force member(s) with radio(s) to the various automobile parking lots and bus pick up points to obtain site area accountability reports from assembly area supervisors.

9. Report site accountability to Security Director as soon as practicable.

INDIVIDUAL ACCOUNTABILITY SHEET

ASSEMBLY AREA _____

DATE/TIME _____

NO. OF PEOPLE ACCOUNTED FOR: _____

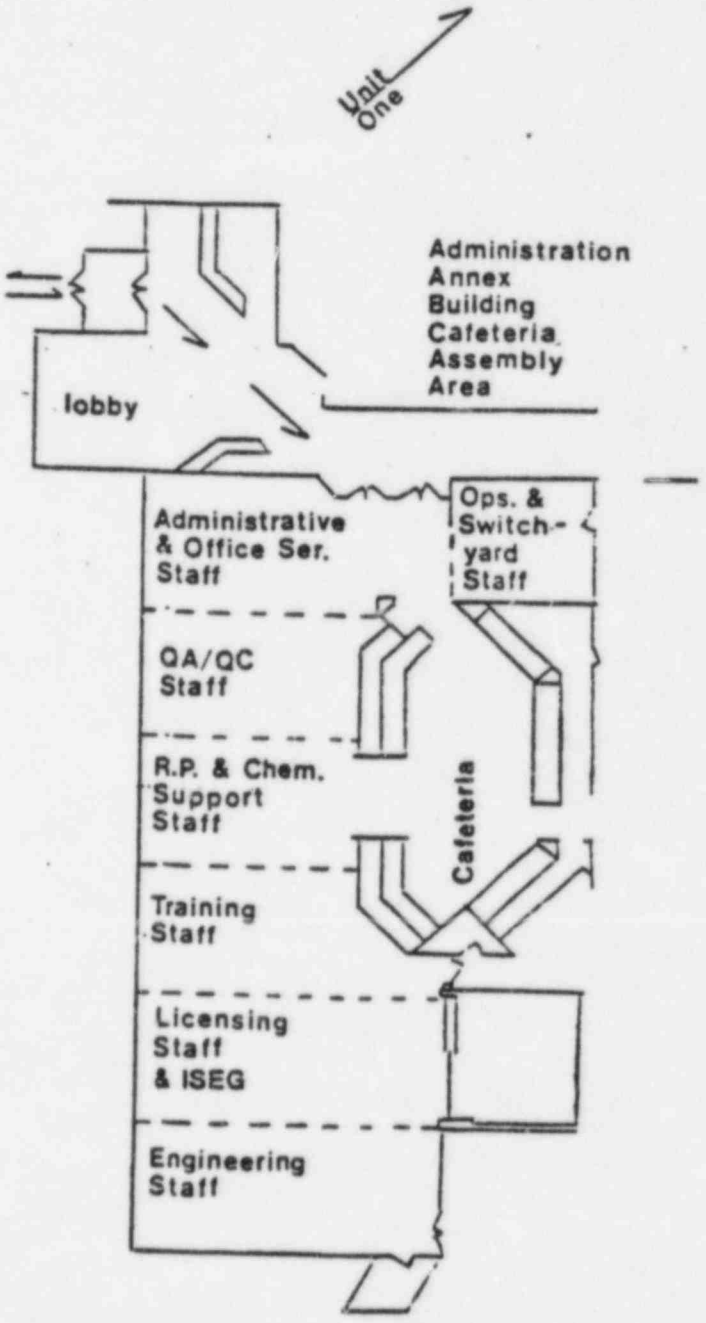
ASSEMBLY AREA SUPERVISOR _____

PERSONNEL LISTING
(Print Clearly)

NAME	ACAD NO.

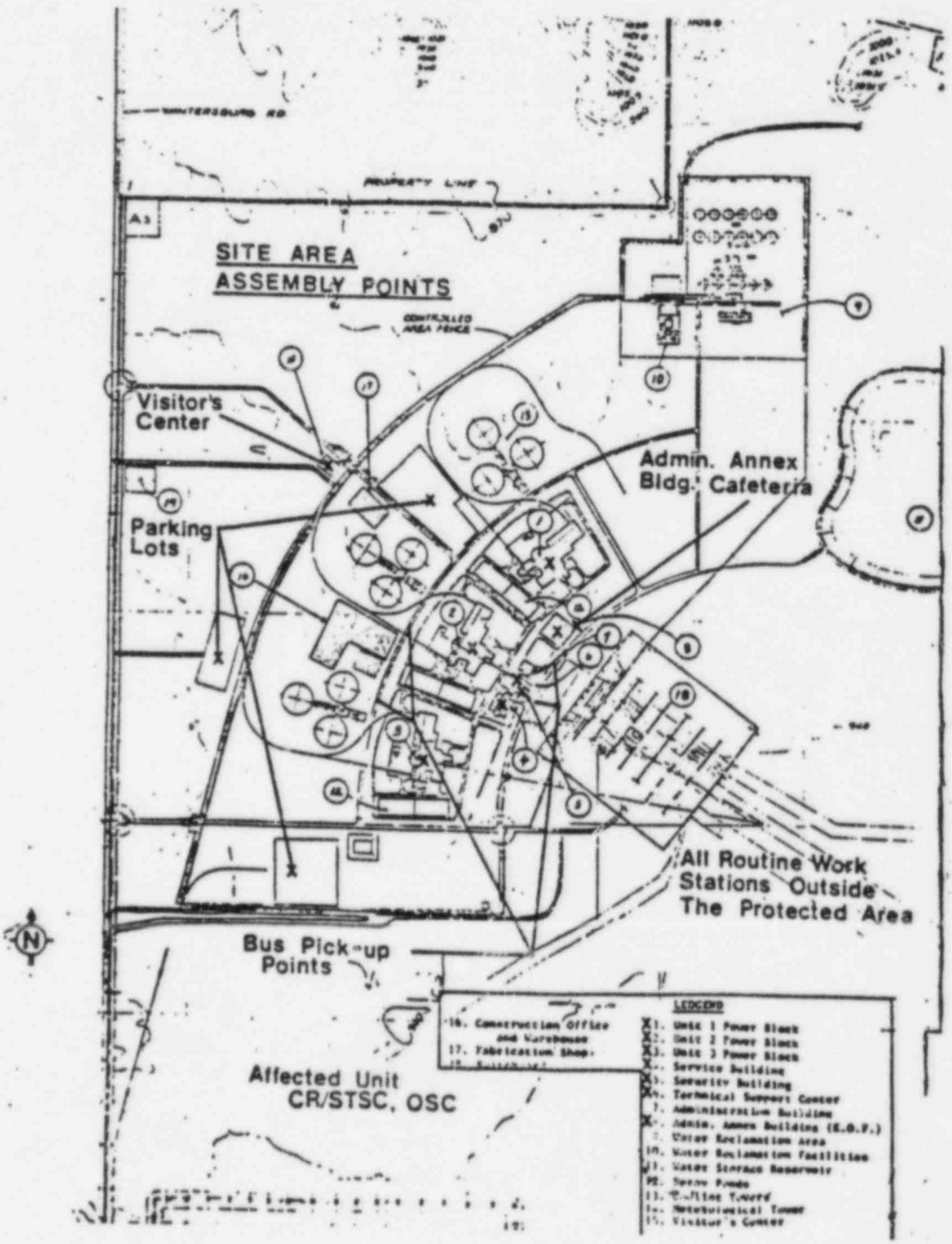
Note: Contact Security Shift Captain at [redacted] with accountability results for this assembly area.

Administration Annex Building Cafeteria Assembly Area



PV216-000A (8/82)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-20	APPENDIX E Page 1 of 1
PERSONNEL ASSEMBLY AND ACCOUNTABILITY	REVISION 4	Page 22 of 28



PV216-000A (8/82)

BECHTEL'S PVNGS PRE-EVACUATION ASSEMBLY PLAN

1.0 Purpose

Alert, assemble and account for all Bechtel employees, Bechtel Subcontractors, and Bechtel visitors in the event of an emergency at PVNGS prior to site evacuation.

2.0 Scope

This plan describes the methods and procedures necessary to alert, assemble and account for employees should an evacuation be necessary.

3.0 General

A safe and orderly process is necessary to assemble and account for personnel in preparation for an emergency that may require site evacuation. The locations for assembly are outlined in this plan. Accountability of personnel at these assembly areas will be the responsibility of appointed supervisors. These supervisors will report their findings to the Emergency Control Center either by phone or radio. Phone numbers [redacted] Bechtel radio FM Channel [redacted] (general use) UHF [redacted] Missing persons must be named. All personnel will remain in their appointed assembly areas until notification from the Emergency Control Center.

Search and rescue for unaccounted personnel within the protected area will be conducted by ANPP personnel. Outside the protected area, Bechtel will be responsible for accountability, search and rescue of Bechtel employees.

4.0 Alerting

Sirens, followed by a P.A. Announcement, will be used to alert personnel on the jobsite to proceed to their appointed assembly areas (parking lots). The accountability signal is a rising high pitched tone in three (3) second bursts and is the signal for personnel to proceed to the parking lots. Sirens will also be used to give the "All Clear" signal which is a continuous tone on the siren. When this signal is sounded personnel are to return to their respective work areas.

Sirens will be used to signal the start of jobsite evacuation (from parking lots) to the designated reassembly areas or as a jobsite work release. This signal, a siren tone similar to the wail of an ambulance, will be accompanied by verbal instructions from the Emergency Control Center indicating the need to proceed to a designated offsite reassembly area, or that employees may depart to points of their choice.

ALL PERSONNEL ARE TO FOLLOW INSTRUCTIONS ISSUED OVER THE PUBLIC ADDRESS SYSTEM; VERBAL ANNOUNCEMENTS SUPERCEDES WRITTEN ASSEMBLY/EVACUATION PROCEDURES.

Flashing lights will be installed in areas where the sirens are not audible. All vehicle traffic, except for emergency vehicles, will stop during period of assembly in the parking lot areas.

5.0 EMERGENCY CONTROL CENTER (ECC)

This center will coordinate all Bechtel site emergency operations excluding the protected area. The center is located at the Field Managers office area. All accountability reporting from assembly areas will be directed to the Project Superintendent, who will record and report to the Field Construction Manager.

The Emergency Control Center Recorder will assume the responsibilities of the FCM in his absence. Shift Superintendents will assume the responsibilities of this plan on the off shifts. The ECC will then report personnel accountability status to the Security Director of the PVNGS Emergency organization in the TSC [redacted]. The decision to evacuate or return to work will come from the Emergency Coordinator of the PVNGS Emergency organization and will be relayed to the Bechtel ECC for action.

A. Assembly Areas and Procedures

1. After the protected area is established all personnel working for a Bechtel entity are covered in the purpose and scope of this plan. (i.e., Bechtel employees in Jobs 10407, 16858, 17680, Res. Engineers, QA, QC, etc., Bechtel Sub-contractors and visitors to Bechtel entities). Assembly for these employees is as follows:

   (a) Bechtel Employees:

(1) Non-Manual Employees:

All Bechtel Non-Manual employees will assemble in the #2 parking lot just West of the Warehouse Lay-down yard. (This lot is not used for vehicle parking.) Entry to the #2 parking lot will be through the walk-thru gates on the West side of the warehouse Lay-down yard or through Gate #2 located just West of the Start-up Modular Structure, adjacent to the Arizona Southern Coach Lines bus parking area.

(2) Craftsmen:

Bechtel Craftsmen will exit the Power Block area through the same badge alley they used when entering the PVNGS work area. Badges will be deposited at each craft shack in the same manner as at the end of any work shift. Craftsmen will remain in their respective parking lots pending further instructions.

(3) Bechtel Sub-Contractors:

Each Bechtel Sub-Contractor will exit the Power Block area through the same badge alley they used when entering the PVNGS work area. Badges will be deposited at the appropriate craft shack in the same manner as at the end of any work shift. Each sub-contractor employee will remain in that parking lot pending further instructions.

(4) Visitors to B.C.I.:

Each visitor to a Bechtel discipline will accompany their "host" to parking lot #2, remaining in this area pending further instructions.

2. Site Assembly Procedures:

(a) Non-Manual Employees

(1) Day Shift Employees:

Each functional supervisor, as indicated on the current Bechtel PVNGS Organization Chart, will insure that each employee under his/her supervision is aware of the siren alert and that they are to proceed to the assembly area in parking lot #2. These supervisors will insure that each employee present for work is accounted for and will report this information, per functional direction as established on the Bechtel Organizational chart, to their next higher level of supervision. This system of reporting will be accomplished until it reaches the office of the Field Construction Manager. All Non-Manual personnel will remain in Parking Lot #2 pending further instructions.

(2) Swing and Grave Shift Employees

Each functional supervisor, as indicated on the current Bechtel PVNGS Organization Chart, will insure that each employee under his/her supervision is aware of the siren alert and that they are to proceed to the assembly area in the APS-ANPP Information Center Parking lot. These supervisors will insure that each employee present for work is accounted for and will report this information, per functional direction as established on the Bechtel Organizational chart, to their next higher level of supervision. This system of reporting will be accomplished until it reaches the office of the Field Construction Manager. All Non-Manual personnel will remain in the APS-ANPP Information Center Parking lot pending further instructions.

(b) Manual Employees

Each Craft Foreman will insure that each member of his crew is aware of the siren alert and direct them to proceed to their respective parking lots. Foremen will advise their General Foreman that accountability has been accomplished - giving the name of any crew member that might be missing. The General Foreman will then advise his immediate superintendent that accountability has been accomplished. The superintendent will advise the Unit Superintendent ie (Unit I, Unit II, Unit III, Yard, Warehouse etc.) that craft personnel have been accounted for and are assembled in their respective parking lots. The Unit Superintendents will then advise the Project Superintendent as to the status of craft personnel working within their unit.

(c) Bechtel Subcontractor

The Manager/Superintendent of each Bechtel Sub-contractor will insure that each of his personnel is aware of the siren alert and that they are to proceed to their respective PVNGS parking lot and are to await further instructions. The Manager/Superintendent will then make an accountability report to the Field Contracts Manager (telephone extension [redacted] who in turn will advise the Field Construction Manager that accountability has been accomplished.

(d) Safety and First Aid Personnel

These persons will assemble at the Safety Office. The supervisor will report accountability to the ECC by phone or radio.

(e) Timekeeping Personnel

All Timekeeping personnel will report to their assigned badge alley/timekeeping office. The supervisor will report accountability to the ECC by phone or radio. Timekeeping personnel will aid in manual personnel accountability.

(f) Visitors

All visitors will be the responsibility of their hosts and must remain in their company. Supervisors will report all visitors in their assembly areas, by name, to the ECC, by phone or radio along with routine reports.

3. Reassembly at "OFFSITE" Evacuation Locations

When the "Jobsite Evacuation" notification is given with a notice of possible radiation release/contamination, it will be necessary to reassemble evacuees away from the jobsite. The primary Bechtel reassembly area will be in the open field adjacent to the Palo Verde Inn Fire Station. The alternate area is the Hassayampa Pump Station. ANPP Security will release each parking lot and bus pick-up point in a predetermined order and lead the evacuees by the appropriate route to the designated off site reassembly area.

B. Fire Department and Medical Staff

Bechtel Fire Department and Medical personnel will not evacuate jobsite upon sounding of jobsite evacuation signal. These personnel will remain at the Bechtel Safety Office pending instructions from the PVNGS Emergency Coordinator.

C. Education and Training

1. Pamphlets will be dispersed to all site personnel (including sub-contractors) to inform them of the procedures established in this plan.

2. An explanation of this plan will be incorporated into the manual and non-manual new hire orientations.

3. The job-wide Safety Tool Box meetings will be used to present the plan to the jobsite. These meetings may be used to provide a refresher for the plan if needed.

4. ANPP will train Bechtel employees who enter the protected area, concerning accountability response within the protected area.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-21	
SEARCH AND RESCUE	REVISION 4	Page 1 of 13

DEPT. HEAD Harry F. Bulion for Dennis Yees DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1602A/0180A

CONTROLLED DOCUMENT

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	6-17-85	3, 4, 5, 6,	Revised References and
		7, 8, 9, 10	deleted two Appendices not
			required. Corrected
			References in text of pro-
			cedure to old Appendices.
4	01/15/86		Deleted Checklists

CONTROLLED DOCUMENT

TABLE OF CONTENTS

APPENDICES

4

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 To provide instructions for the search and rescue of individuals who may be missing or disabled.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-18, "Emergency Exposure Guidelines"

2.1.2 EPIP-20, "Personnel Assembly and Accountability"

2.1.3 EPIP-22, "Personnel Injury"

2.1.4 EPIP-28, "Personnel Monitoring and Decontamination"

2.1.5 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 PVNGS Emergency Plan, Rev. 6

2.2.2 NCRP Report #39, 1971 Basic Radiation Protection Criteria.

2.2.3 EPA-520/1-75-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," revised June 1980.

2.2.4 NUREG 0737, "Clarification of TMI Action Plan Requirements," October 1980

2.2.5 75AC-9ZZ01, "Radiation Exposure and Access Control," Rev. 3

2.2.6 ANSI N45.2.9-1974 "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants."

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Proper radiological controls should be adhered to during search and rescue operations.

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3.2 Emergency Exposures shall be authorized in accordance with EPIP-18, "Emergency Exposure Guidelines."

3.3 A portable radio should be provided to the Search and Rescue Team.

3.4 Search and Rescue Team members should keep within sight or voice range of each other.

3.5 The Hazards Control Coordinator Search and Rescue Information Sheet shall be forwarded to the Emergency Planning and Preparedness Dept. for storage in accordance with 9N219.05.00, "Document/Record Turnover Control."

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 If personnel are known to be missing or disabled based on the results of EPIP-20, "Personnel Assembly and Accountability," the Security Director shall notify the Emergency Coordinator.

4.1.2 The Emergency Coordinator is responsible for implementing this procedure and shall direct the OSC Coordinator via the Emergency Maintenance Coordinator, to form a Search and Rescue Team.

4.2 Prerequisites

4.2.1 Personnel have been reported missing per EPIP-20 or are known to be disabled and need assistance.

4.3 Instructions

4.3.1 The Emergency Coordinator via the Emergency Maintenance Coordinator shall instruct the OSC Coordinator to deploy a Search and Rescue team. The instruction should include the following (if known):

(1) Identification of missing individual(s).

(2) Last known location of each individual (as determined from Security Controlled Access System Computer, Radiation Exposure Permit or other source).

4.3.2 The OSC Coordinator shall:

4.3.2.1 Assemble a Search and Rescue Team(s), each team consisting of two members. Both members shall be familiar with the plant.

4.3.2.2 Appoint one team member as the Team Leader.

4.3.2.3 Within the limits allowed by the urgency of the situation, make every reasonable effort to provide the Search and Rescue Team(s) with the following information (if known):

(1) Identification of missing individual(s).

(2) Last known location of each individual (check Security and REP if one is issued).

(3) The job each individual was working.

(4) Any significant details of the plant status that may affect the search and any special instructions.

(5) Nature of injuries, if known.

(6) With the Radiation Protection Monitor or Radiological Protection Coordinator, ascertain radiation levels if possible, and determine the approximate stay times for team members in the area.

(7) Inform Search and Rescue Team members of radiation exposure limits if deemed necessary.

(8) Instruct the team(s) to notify the Hazards Control Coordinator. Immediately upon location and/or removal of personnel from the hazardous area.

4.3.2.4 Coordinate all Search and Rescue Teams so that duplication of effort and unnecessary radiation exposure does not occur.

4.3.2.5 Recall the Search and Rescue Team(s) when search and rescue operations are no longer necessary as determined by the Emergency Coordinator or when all missing personnel are accounted.

4.3.3 The Search and Rescue Team Leader shall:

4.3.3.1 Ensure that the team is equipped as necessary utilizing Appendix A, "Search and Rescue Response."

4.3.3.2 Go to the Control Room to obtain appropriate master key(s) for area(s) to be searched.

4.3.3.3 Keep the Hazards Control Coordinator informed of significant actions via appropriate communication equipment.

4.3.3.4 Inform the Hazards Control Coordinator immediately upon locating any missing and/or disabled personnel.

4.3.4 The Search and Rescue Team members shall:

4.3.4.1 Proceed to the last known location of the missing individual(s) and if necessary, expand the search to adjacent areas.

4.3.4.2 Keep within sight or voice range of each other, if possible.

4.3.4.3 Employ the following guidelines during the rescue effort:

(1) If the area is known to be contaminated or if steam or an explosion is involved in an area where it may be contaminated, protective clothing and respiratory protection should be worn.

(2) If the area is smoke or steam filled, or if the area is in disarray because of fire or explosion, team members shall use lifelines and respiratory protection as necessary.

(3) If there is potential radiation in the area, radiation levels shall be monitored as the area is entered.

(4) On the basis of the inspection of the area, the rescue should be completed or if the rescue is complicated by the condition of the area, the Search and Rescue Team should return to a safe area and plan the method of rescue (see 4.3.6).

4.3.5 The Hazards Control Coordinator shall:

4.3.5.1 Keep the OSC Coordinator informed via the Emergency Maintenance Coordinator of all significant events.

4.3.5.2 Complete the Information Sheet, Appendix "B", as appropriate.

4.3.5.3 Notify the Emergency Coordinator of the results of the Search and Rescue efforts.

4.3.6 High Radiation -

NOTE

The Emergency Coordinator's permission is required prior to Search and Rescue Team members exceeding 10CFR20 limits except in immediate life or death situations. Such exposures are allowed provided the criteria of EPIP-18 are followed.

4.3.6.1 If the individual's condition is known to be such that excessive time is required to remove him from the area, consider portable shielding or other steps to reduce the exposure of the personnel involved.

4.3.7 Fire -

4.3.7.1 Rescue of an individual shall take precedence over fire fighting unless the fire can be extinguished without detrimental effect on the victim or if it is necessary to suppress the fire to perform the rescue.

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4.3.7.2 Consider obtaining rainsuits from fire fighting supplies and having one team member spray water (using a hose and spray nozzle) over the team member performing the rescue.

4.3.8 Steam or Hot Water -

4.3.8.1 Rescue of an individual shall take precedence over system isolation unless system isolation is required to perform the rescue; or failure to isolate the system will seriously affect reactor safety; or place the lives of other personnel in immediate danger.

4.3.8.2 Consider performing the actions of 4.3.7.2 to perform the rescue.

4.3.9 Wreckage -

4.3.9.1 Obtain the tools necessary to perform the rescue.

4.3.9.2 Enter the area and perform the rescue.

4.3.10 Action Following Rescue

4.3.10.1 Transport or escort the victim(s) to a safe location as soon as possible and perform any required first aid.

4.3.10.2 If the victim is injured, advise the Hazards Control Coordinator and perform EPIP-22, "Personnel Injury," as necessary.

4.3.10.3 The OSC Coordinator shall inform the Hazards Control Coordinator when the team has concluded its search and rescue activities and returned to the OSC.

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SEARCH AND RESCUE TEAM
RESPONSE

POSITION FILLED BY: At least two emergency personnel per team.
Personnel available for Search and Rescue Teams include:
Designated Shift Personnel
Radiation Protection Technician
Chemistry Technician
Mechanical Maintenance Technician
Electrical Maintenance Technician
I & C Maintenance Technician

RESPONSIBILITY: Conduct search and rescue activities during an emergency.

IMMEDIATE ACTIONS

1. Within limits allowed by the urgency at the situation, obtain search and rescue data from supervisory individual:

   (1) I.D. of missing person
   (2) Last known location
   (3) Job individual was working on
   (4) Pertinent details of plant status
   (5) Stay time(s) in area(s)
   (6) Radiation exposure limits
   (7) Nature of injuries, if known

2. Obtain the following equipment as required:

   (1) Portable radio
   (2) Radiation survey instruments
   (3) High range beta/gamma survey meter
   (4) Dosimetry (self-alarming)
   (5) Lifelines
   (6) Protective clothing
   (7) SCBA

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(8) First aid kit
(9) Flashlights
(10) Stretcher
(11) Other (as needed)

3. Obtain Radiation Exposure Permit (REP) if required.

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HAZARDS CONTROL COORDINATOR
SEARCH AND RESCUE INFORMATION SHEET

1. Date _____ Time _____

2. OSC Coordinator _____

3. Team Members: a. _____ (Leader)

   b. _____

4. Identity of Missing Individual(s) Probable Location

   _____ _____

   _____ _____

   _____ _____

   _____ _____

5. Potential Conditions at Location (circle):

   a. Contamination
   b. High Radiation
   c. Fire
   d. Smoke Filled
   e. Steam Leak
   f. Steam Filled
   g. Wreckage
   h. Loss of Lights
   i. Other (Specify) _____

	INITIALS
6. If required, emergency exposure limits have been authorized	
7. Radiation levels and stay times determined, if necessary	

HAZARDS CONTROL COORDINATOR
SEARCH AND RESCUE INFORMATION SHEET (CONT'D

8. Missing individual(s) located - Time: _____

_____

9. Condition of missing individual(s) _____

_____

10. Rescue completed - Time: _____

11. Search and Rescue Team members returned to OSC:

	Time
_____	_____
_____	_____
_____	_____
_____	_____

Performed by _____
Signature

Date _____

CONTROLLED DOCUMENT

ASSIGNED COPY
PVNGS #8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 of 1

INTENT CHANGE: NO [X] YES [ ]

1. PROCEDURE TITLE Security
2. PROCEDURE NUMBER EPIP-24 REV. 3 PCN 1
2a. Manager concurrence to exceed 5 PCNs N/A DATE
3. REASON FOR PCN: Deletion of references to "checklists."
4. EXPIRATION: Next Revision
5. AFFECTED STEPS: Page 9, section 4.3.5 EOF Access

   CHANGE REQUIRED: Delete Page 9; Insert 9a
6. PREPARED BY: Gerald A. Aimsele 12/4/85

   SIGNATURE DATE

   ENTERED IN PROCEDURE BY:

   SIGNATURE DATE
7. TEMPORARY APPROVAL: N/A

   SIGNATURE DATE

   SS/Assist. SS DATE
8. DEPT. MANAGER: Harry L. Sheling for Dennis Youn 12/4/85

   SIGNATURE DATE
9. PRB/PRC/TRRG: [signature] 1/2/86

   SIGNATURE DATE
10. APPROVED BY: [signature] 1/6/86

    DEPARTMENT MANAGER'S SIGNATURE DATE
11. DATE EFFECTIVE:

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-24	
SECURITY	REVISION 3	Page 1 of 12

DEPT. HEAD _____ DATE 9/4/85

PRB/PRG/TRRG REVIEW _____ DATE 9/4/85

APPROVED BY _____ 12/2/85 DATE 9/4/85

EFFECTIVE DATE 09-12-85

DN-1590A/0180A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-24	
SECURITY	REVISION 3	Page 2 of 12

3

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	09-12-95	All	Total Revision: incorporating comments from Security

3

TABLE OF CONTENTS

APPENDICES

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 To provide methods for expediting access of offsite emergency response personnel (i.e., NRC representatives, vendors, Bechtel, etc.) and emergency vehicles to PVNGS.

1.2 To provide methods for controlling access to the Control Room, Satellite Technical Support Center (STSC), Technical Support Center (TSC), and Emergency Operations Facility (EOF) during an emergency. 3

1.3 To provide a means for identifying personnel assigned to the PVNGS Emergency Organization.

2.0 REFERENCES

2.1 Implementing References

2.1.1 PVNGS Security Plan 3

2.1.2 EPIP-13, "Emergency Operations Facility Activation"

2.1.3 EPIP-28, "Personnel Monitoring and Decontamination"

2.1.4 EPIP-29, "Area/Equipment Monitoring and Decontamination"

2.1.5 75RP-9ZZ01, "TLD Issue, Exchange, and Termination"

2.2 Developmental References

2.2.1 PVNGS Emergency Plan, Rev. 5

3.0 LIMITATIONS AND PRECAUTIONS

3.1 In the event of an emergency at PVNGS, security measures may be altered to provide for immediate station access by offsite emergency personnel and vehicles.

CONTROLLED DOCUMENT

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 The Security Director is responsible for implementing this procedure and insuring that only those personnel properly authorized access are permitted within the protected area.

4.1.2 The cognizant Facility/Area supervisor is responsible for authorizing and controlling access to the emergency facility over which he has authority.

(1) Control Room/STSC - Shift Supervisor/Onshift Emergency Coordinator
(2) Technical Support Center - Emergency Coordinator
(3) PVNGS Protected Area - Security Director
(4) Emergency Operations Facility - Emergency Operations Director
(5) Operations Support Center - OSC Coordinator

4.1.3 The Site Emergency Planning Supervisor shall be responsible for reviewing, updating and providing to Security the TSC and EOF Emergency Personnel Access Lists on a quarterly basis.

4.2 Prerequisites

4.2.1 The PVNGS Emergency Plan has been implemented, and emergency response facilities have been activated.

4.3 Instructions

4.3.1 Emergency Vehicle Access (Fire, Ambulance, Etc.)

4.3.1.1 The Emergency Coordinator shall notify the Security Director of the estimated time of arrival for offsite assistance vehicles and the number of occupants.

4.3.1.2 Upon arrival, a cursory inspection of the vehicle(s) shall be performed by the Security Force to verify that it is in fact the requested vehicle. The number of occupants shall be verified and given visitor ACADS, with proper forms filled out when time permits.

CONTROLLED DOCUMENT

NOTE

Personal dosimetry shall be issued to individuals requiring access to radiologically controlled areas in accordance with 75RP-9ZZ01, "TLD Issue, Exchange, and Termination."

4.3.1.3 The vehicle(s) shall then be admitted to the protected area. The emergency vehicle(s)/personnel shall be escorted at all times while within the protected area in accordance with normal security procedures. 3

NOTE

If contamination of vehicles or personnel is suspected, monitoring and decontamination should be performed in accordance with EPIP-28, "Personnel Monitoring and Decontamination", and EPIP-29, "Area/Equipment Monitoring and Decontamination", as necessary, prior to vehicle/personnel departure.

4.3.1.4 Upon completion of required casualty actions the emergency vehicle(s) shall proceed to the gate requested, where the number of occupants shall be noted and compared to the number who entered the station.

NOTE 3

For exiting ambulance(s), it should be verified that the number of outbound personnel is the same as inbound PLUS the injured person(s) and all ACADS retrieved.

4.3.1.5 If there is any discrepancy between the number of offsite assistance personnel admitted and those departing, Security Force personnel shall contact the Security Director for further action prior to releasing the vehicle(s).

4.3.2 Protected Area Access

NOTE

The Emergency Coordinator may at any time direct the Security Director to limit access to the station.

4.3.2.1 At the declaration of an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY and/or the initiation of personnel assembly and accountability, the Security Director shall take immediate steps to limit access to the protected area to those personnel possessing a normal protected area Key-card. 3

4.3.2.2 Whenever a locked Vital area must be entered by emergency personnel, cardkey(s) issued to authorized escort(s) and/or emergency team members shall be used to affect necessary entry.

NOTE

Missile doors of the type at each unit's 140' elevation do not incorporate electromechanical locks; if closed and bolted, these doors may be opened by rotating their wheel-cranks counterclockwise until their extended sliding bolts are fully withdrawn. However if power loss occurs, wheel-cranks free-wheel and will not open.

4.3.2.3 If Vital area and/or missile doors equipped with electro-mechanical locks cannot be opened by emergency personnel/escorts using their issued cardkeys because of electromagnetic lock malfunction or computer failure, contact Security for assistance in accessing the door.

CONTROLLED DOCUMENT

4.3.2.4 ANPP personnel who are called to the station and who have not been previously assigned and identified in an Emergency Personnel Access List and/or do not possess a protected area key-card shall report to the Security Visitor Processing Trailer. The Security Director shall notify the Emergency Coordinator of those personnel reporting to the station so that they may be admitted. 3

4.3.2.5 Vendor, contractor, NRC, Bechtel, and other personnel not specified in an Emergency Personnel Access List shall only be admitted following routine visitor badging procedures and shall be escorted, if possible, in accordance with established security procedures.

4.3.2.6 If conditions warrant, the Emergency Coordinator may direct the Security Director to contact the Maricopa County Sheriff's Office for assistance in controlling access to the PVNGS area.

4.3.3 Technical Support Center Access

4.3.3.1 Upon activation of the TSC, the Security Director shall request that a member of the Security Force be stationed at the entrance to the TSC to limit access to only those personnel whose name appears on the TSC Emergency Personnel Access List. 3

4.3.3.2 All other personnel requiring access to the TSC shall receive verbal authorization from the Emergency Coordinator or Personnel Resources Coordinator who shall in turn notify the Security Director to grant the access.

4.3.3.3 The TSC staff shall obtain their Emergency Personnel Identification Badge (Appendix A) from its storage location in the TSC and wear it in addition to their security badge. This badge shall be transferred whenever functional responsibility is transferred from one individual to another. 3

4.3.4 Control Room/STSC Access

4.3.4.1 Normal key-card Control Room access procedures shall be in effect during emergency conditions with the following stipulations:

PCN #01

(1) The Shift Supervisor may at his discretion upon the declaration of a NOTIFICATION OF UNUSUAL EVENT limit access to the Control Room to those Operations personnel onshift and only those personnel specifically authorized by him or the Emergency Coordinator.

(2) During ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY condition, access shall be limited to assigned Emergency Organization personnel and only those personnel specifically authorized by the Shift Supervisor or the Emergency Coordinator.

4.3.5 Emergency Operations Facility Access

4.3.5.1 Upon activation of the EOF, a Security Force Member shall proceed to the EOF and perform the actions of Appendix P, "Security Force Member Checklist", of EPIP-13, "Emergency Operations Facility Activation" and restrict access to those personnel whose name appears on the EOF Emergency Personnel Access List. 3

4.3.5.2 The Security Coordinator, upon arrival at the EOF, shall assume responsibility for EOF access, per Appendix K, "Security Coordinator Checklist", of EPIP-13.

4.3.5.3 All other personnel requesting access to the EOF shall receive verbal authorization from the Emergency Operations Director or Administrative and Logistics Coordinator who shall in turn notify the Security Coordinator to grant access.

4.3.5.4 If the Emergency Operations Director or the Administrative and Logistics Coordinator requests personnel to report to the EOF who have not been previously granted access, the Security Coordinator should be immediately notified so that access may be arranged.

4.3.5.5 The EOF staff shall obtain their Emergency Personnel Identification Badge (Appendix A) from its storage location in the EOF and wear it in addition to their security badge. This badge shall be transferred whenever functional responsibility is transferred from one individual to another. 3

CONTROLLED DOCUMENT

(1) The Shift Supervisor may at his discretion upon the declaration of a NOTIFICATION OF UNUSUAL EVENT limit access to the Control Room to those Operations personnel onshift and only those personnel specifically authorized by him or the Emergency Coordinator.

(2) During ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY condition, access shall be limited to assigned Emergency Organization personnel and only those personnel specifically authorized by the Shift Supervisor or the Emergency Coordinator.

4.3.5 Emergency Operations Facility Access

4.3.5.1 Upon activation of the EOF, a Security Force Member shall proceed to the EOF and perform the actions of Appendix P, "Security Force Member ~~Checklist~~ Response", of EPIP-13, "Emergency Operations Facility Activation" and restrict access to those personnel whose name appears on the EOF Emergency Personnel Access List. 3 REVISED

4.3.5.2 The Security Coordinator, upon arrival at the EOF, shall assume responsibility for EOF access, per Appendix K, "Security Coordinator ~~Checklist~~ Response", of EPIP-13. REVISED

4.3.5.3 All other personnel requesting access to the EOF shall receive verbal authorization from the Emergency Operations Director or Administrative and Logistics Coordinator who shall in turn notify the Security Coordinator to grant access.

4.3.5.4 If the Emergency Operations Director or the Administrative and Logistics Coordinator requests personnel to report to the EOF who have not been previously granted access, the Security Coordinator should be immediately notified so that access may be arranged.

4.3.5.5 The EOF staff shall obtain their Emergency Personnel Identification Badge (Appendix A) from its storage location in the EOF and wear it in addition to their security badge. This badge shall be transferred whenever functional responsibility is transferred from one individual to another. 3

4.3.6 Media Access Control

4.3.6.1 At NOTIFICATION OF UNUSUAL EVENT classification, Security Force Members shall refer all media representatives intercepted at access points or onsite to the Forward News Center (Visitor's Center) for information concerning the emergency. 3

4.3.6.2 At an ALERT or higher classification, Security Force Members shall refer all media representatives intercepted at access points or onsite to the Joint Emergency News Center (JENC), 5636 E. McDowell Road, Phoenix, for information concerning the emergency.

4.3.7 Emergency Personnel Identification

4.3.7.1 Each functional assignment in the PVNGS Emergency Response Organization should have a badge. (See Appendix A for sample.) 3

4.3.7.2 Emergency personnel identification shall be reviewed and updated concurrently with the annual PVNGS Emergency Plan review.

4.3.7.3 Emergency Personnel Identification Badges should be worn in station emergency response facilities: TSC, CR/STSC, EOF, OSC and Service Building (alternate OSC).

4.3.7.4 The Emergency Personnel Identification Badges are to be used to identify the functional responsibility of the individual and to transfer that responsibility when relieved.

4.3.7.5 The Security Coordinator should periodically determine if badges are being properly displayed at the EOF.

4.3.7.6 The Security Director should periodically determine if badges are being properly displayed at the TSC/Service Building.

4.3.7.7 The Shift Supervisor should periodically determine if badges are being properly displayed in the Control Room/STSC. 3

4.3.7.8 The OSC Coordinator should periodically determine if badges are being properly displayed in the OSC.

CONTROLLED DOCUMENT

4.3.8 Government Access To The TSC/EOF 3

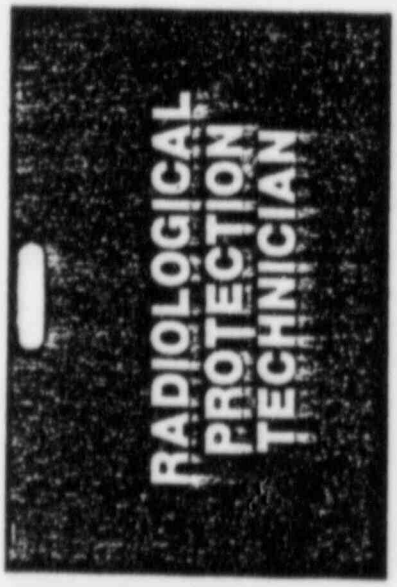
4.3.8.1 Provision shall be made for a limited number of government employees in the EOF/TSC. This shall include representatives from the Nuclear Regulatory Commission (NRC) (EOF and TSC), Federal Emergency Management Agency (FEMA) (EOF only), and State of Arizona (EOF only).

4.3.8.2 NRC Officials listed on the NRC Personnel Response List (held by Security) shall be granted access to the EOF or TSC IMMEDIATELY WITHOUT DELAY after registering with Security.

4.3.8.3 All other government personnel shall report to the EOF and comply with Step 4.3.2.5 of This EPIP.

CONTROLLED DOCUMENT

EMERGENCY PERSONNEL IDENTIFICATION BADGE



CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-25	
REENTRY FOR EMERGENCY OPERATIONS	REVISION 4	Page 1 of 11

DEPT. HEAD Harry F. Bailey for Dennis Haws DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1621A/0188A

CONTROLLED DOCUMENT

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	06.27.05	3,4,5,6,7,8,	Deleted appendix which
		10,11	didn't apply; updated
			references; updated
			references to all appendices;
			made grammatical changes to
			make easier to read.
4	01.15.06	3,4,5,7,8,10,	Deleted Emergency Repair Team
		11	Checklist

TABLE OF CONTENTS

APPENDICES

4

CONTROLLED DOCUMENT

1.0 OBJECTIVE

To address required authorization, guidance and maximum exposure criteria in the event it becomes necessary to enter high radiation or contaminated areas for the purpose of crew relief or emergency repair/operations.

2.0 REFERENCES

2.1 Implementing References

2.1.1 EPIP-02, "Emergency Classification"

2.1.2 EPIP-18, "Emergency Exposure Guidelines"

2.1.3 EPIP-22, "Personnel Injury"

2.1.4 EPIP-26, "Potassium Iodide (KI) Administration"

2.1.5 EPIP-28, "Personnel Monitoring and Decontamination"

2.1.6 EPIP-29, "Area/Equipment Monitoring and Decontamination"

2.1.7 75RP-9ZZ44, "Radiation Exposure Permits."

2.1.8 9N219.05.00, "Document/Record Turnover Control."

2.2 Developmental References

2.2.1 NCRP Report #39, "Basic Radiation Protection Criteria," 1971.

2.2.2 EPA-520/1-75-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," Revised June, 1980

2.2.3 10CFR20, "Standards for Protection Against Radiation," 1983

2.2.4 75PR-0ZZ01, "Radiation Protection Program," Rev. 3.

2.2.5 NUREG-0737, "Clarification of TMI Action Plan Requirements," October, 1980

2.2.6 75AC-9ZZ01, "Radiation Exposure and Access Control," Rev. 3.

2.2.7 EPIP-16, "Inplant Surveys and Sampling" Rev. 3.

CONTROLLED DOCUMENT

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Emergency Exposures shall be authorized per EPIP-18, "Emergency Exposure Guidelines."

3.2 Administrative methods to minimize personnel exposure should remain in force to the extent consistent with timely corrective or protective actions.

3.3 Personnel shall wear dosimeters appropriate for the measurement of anticipated exposure levels. These should include:

3.3.1 Thermoluminescent Dosimeter (Legal)

3.3.2 Thermoluminescent Dosimeter (Job)

3.3.3 Extremity Dosimeters, if appropriate (Appendix A, Note 2)

3.3.4 Alarming Dosimeters

3.4 Potassium Iodide (KI) tablets, if necessary, shall be administered in accordance with EPIP-26, "Potassium Iodide (KI) Administration."

~~3.5 Appendix B shall be forwarded to Emergency Planning and Preparedness Dept for storage per 9N219.05.00, "Document/Record Turnover Control."~~ 4

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 The Radiological Protection Coordinator and/or Emergency Coordinator shall authorize emergency exposures per EPIP-18.

4.1.2 The Operations Support Center Coordinator shall deploy emergency repair teams, as directed by the Emergency Coordinator from the Control Room/STSC in the onshift organization or the Emergency Maintenance Coordinator in the TSC in the onsite organization.

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4.1.3 The Emergency Repair Team shall consist of at least two Maintenance Technicians. If radiological conditions necessitate, a Radiation Protection Technician shall also be assigned to the team.

4.1.3.1 The Emergency Repair Team Leader shall communicate with the OSC Coordinator or Repairs Coordinator (onsite).

4.1.3.2 The Radiation Protection Technician shall be responsible for assessing radiological conditions.

4.2 Prerequisites

4.2.1 An incident has occurred which has been classified per the provisions of EPIP-02, "Emergency Classification."

4.2.2 The onsite Emergency Coordinator, the Emergency Maintenance Coordinator or the Radiological Protection Coordinator has determined emergency repair/operations are crucial to the needs of the Emergency Organization. In the onshift organization, the Emergency Coordinator makes this determination.

4.3 Instructions

4.3.1 The onsite Emergency Coordinator/Emergency Maintenance Coordinator/Radiological Protection Coordinator shall provide the OSC Coordinator with a description of:

1) The work to be performed;

2) How many people the work requires;

3) What tools, spare parts, equipment, etc. are needed;

4) Radiological conditions, if known.

4.3.2 If emergency exposures are required, the Radiological Protection Coordinator shall provide the Emergency Coordinator with a radiological evaluation of the situation(s) requiring emergency exposure(s). A Radiation Exposure Permit (REP) authorizing emergency exposure, shall be completed in accordance with 75RP-9ZZ44, "Radiation Exposure Permits."

(1) The Emergency Team shall conduct repair activities in accordance with the REP and review items 1-5 of Appendix B, prior to entry. 4

4.3.3 If emergency exposures are not required, the Radiological Protection Coordinator or his designee shall complete the REP detailing specific protective equipment, allowable doses and the following ALARA procedures:

(1) Preplanning

(2) Detailed work procedures

(3) Special task training, if time allows

(4) "Dry Run," if time allows

(5) Stay time

(6) Route to take to the repair operation location

(7) Adequate ventilation, lighting, water, etc.

4.3.4 Personnel Exposure Control

4.3.4.1 The Emergency Repair Team shall abide by all conditions specified in the REP.

> CAUTION
>
> THE EMERGENCY REPAIR TEAM SHALL NOT ENTER ANY AREA WHERE DOSE RATES ARE UNMEASUREABLE WITH SURVEY INSTRUMENTS IMMEDIATELY AVAILABLE.

4.3.4.2 Enter suspected radiation areas with the meter set on the high scale switching to lower scales as necessary.

4.3.4.3 Upon entering the operation/repair location, the Radiation Protection Technician, if available or the Emergency Repair Team Leader shall reevaluate radiological conditions.

4.3.4.4 If radiological conditions permit, perform the required operations/maintenance.

4.3.4.5 Personnel unable to complete the task within the allotted dose shall exit the radiation area.

4.3.4.6 If radiological or other working conditions prevent the repair team from completing the task, the Emergency Repair Team Leader shall immediately report this information to the Emergency Coordinator (onshift) or the Repairs Coordinator (onsite).

4.3.5 Subsequent Actions

4.3.5.1 Emergency Repair Team Leader shall ensure personnel are checked for contamination. Decontaminate as necessary per EPIP-28, "Personnel Monitoring and Decontamination."

4.3.5.2 Emergency Repair Team Leader shall ensure equipment is checked for contamination. Decontaminate as necessary per EPIP-29, "Area/Equipment Monitoring and Decontamination."

4.3.5.3 The Radiological Protection Coordinator (RPC) shall promptly obtain initial estimates of the radiation dose of exposed personnel.

4.3.5.4 The RPC shall update and refine dose estimates at a later time.

4.3.5.5 The RPC shall immediately report exposures in excess of 10CFR20 limits to the Emergency Coordinator.

CONTROLLED DOCUMENT

MAXIMUM PERMISSIBLE DOSE LIMITS
FOR OCCUPATIONAL WORKERS

DOSE LIMITS

Critical Organ	mrem/quarter
Whole Body, Head and Trunk, Active Blood-Forming Organs, Lens of the Eye or Gonads	1,250[1]
Hands, Forearms, Ankles, Feet	18,750[2]
Skin of Whole Body	7,500[2]
Other Organs (Thyroid), Tissues and Organ Systems	5,000[4]
Pregnant Women (With Respect to the Fetus)	500mrem[3] / 9 months

1. 3,000 millirem is permitted in a calendar quarter or 12,000 millirem in a year as long as the accumulative occupational dose to the whole body does not exceed 5,000 millirem x (age - 18) and the individual's lifetime exposure history is recorded on the NRC's Form 4 or equivalent. Doses exceeding 1,250 mrem/quarter must be reported to the NRC per 10CFR20.403 and 10CFR20.405.

2. The licensee is required to supply appropriate personnel monitoring equipment and shall require the use of such equipment by each individual who enters a high radiation area or that receives or is likely to receive a dose in any calendar quarter in excess of 25% of the applicable 10CFR20 value.

3. NCRP Guidance.

4. NUREG 0737.

4

EMERGENCY REPAIR TEAM
RESPONSE

POSITION FILLED BY: At least two Technicians per team:
Radiation Protection Technician
Chemical Technician
Mechanical Maintenance Technician
Electrical Maintenance Technician
I & C Maintenance Technician

RESPONSIBILITY: Perform emergency repairs/operations.

IMMEDIATE ACTIONS

1. Obtain description of work to be performed from supervisory individual:

2. Obtain the following equipment as required:

   (1) Portable radio
   (2) Radiation survey instruments
   (3) High range beta/gamma survey meter
   (4) Dosimetry (self-alarming)
   (5) Protective clothing
   (6) SCBA
   (7) Tools as required
   (8) Spare parts as required
   (9) Other (as required)

3. Obtain Radiation Exposure Permit (REP) if required.

4. Take KI Tablet if authorized and desired.

4

EMERGENCY REPAIR TEAM
RESPONSE (Continued)

SUBSEQUENT ACTIONS

High Radiation

5. Obtain Emergency Coordinator's* authorization before exceeding 10CFR20 exposure limits.

Decontamination

6. Be checked for contamination.

7. Decontaminate self as required, per EPIP-28.

8. Decontaminate equipment as required, per EPIP-29.

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* The Radiological Protection Coordinator may authorize exposures in excess of PVNGS Administrative Radiation Exposure Limits up to the limits of 10CFR20.

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-31	
RECOVERY	REVISION 4	Page 1 of 12

DEPT. HEAD Harvey S. Bulen for Dennis Youra DATE 12/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 1/2/86

APPROVED BY [signature] DATE 1/6/86

EFFECTIVE DATE 01-15-86

DN-1667A/0196A

PV216-00DA (8/82)

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-31	
RECOVERY	REVISION 4	Page 2 of 12

REVISION HISTORY

Rev. No.	Date	Revised Pages	Comments
3	4-18-85	All	Revised procedure to reflect lessons learned from emergency exercises and drills. Also added new Recovery Manager's Checklist.
4	01-15-86	3,4,5,8,10, 11,12	Deleted Recovery Manager's Checklist.

TABLE OF CONTENTS

APPENDIX

4

CONTROLLED DOCUMENT

1.0 OBJECTIVE

1.1 This procedure prescribes those recovery operations necessary to identify the extent of station damage and radiological contamination (if any) and return the station to an operating status which is in compliance with the unit(s) technical specifications.

2.0 REFERENCES

2.1 Implementing References

2.1.1 9N219.05.00, "Document/Record Turnover Control"

2.2 Developmental References

2.2.1 NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

2.2.2 PVNGS Emergency Plan, Rev. 6

2.2.3 ANSI N45.2.9-1974, "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants"

3.0 LIMITATIONS AND PRECAUTIONS

3.1 Exposure to personnel should be kept As Low As Reasonably Achievable consistent with the nature of the recovery operation required.

3.2 Recovery operations may begin when the unit is in a controlled and stable condition. No action shall be taken which might disturb this situation without the express approval of the Recovery Manager.

4.0 DETAILED PROCEDURE

4.1 Personnel Indoctrination/Responsibilities

4.1.1 Recovery operations for PVNGS are conducted in two phases. Phase I efforts involve recovery measures undertaken during and immediately following the emergency. These measures are a functional responsibility of the emergency organization and may be augmented by corporate and short-term contract support. Phase II recovery operations include the longer term post-emergency efforts that follow a major incident. These operations are performed by station and other ANPP personnel, contract experts and specialists, and qualified engineers - contractors under the direction of the Recovery Organization.

4.1.2 The Emergency Operations Director, with the advice of the Emergency Coordinator, is responsible for implementing this procedure.

4.2 Prerequisites

4.2.1 Radiation levels are stable or decreasing with time.

4.2.2 Releases of radioactive materials to the environment have ceased or are controlled within permissible license limits.

4.2.3 Fire or other similar emergency conditions no longer constitute a hazard to the unit or unit personnel.

4.2.4 Measures have been successfully instituted to correct or compensate for malfunctioning equipment.

4.3 Instructions

4.3.1 Upon recognition that the prerequisites (Section 4.2) have been established, the Emergency Operations Director shall establish the Recovery Organization as depicted in Appendix A and function as per Appendix B, "Recovery Manager Response." 4

4.3.2 The Emergency Operations Director shall assume the duties and responsibilities of the Recovery Manager and notify, via NAN, affected offsite emergency management organizations and the NRC that recovery operations are in progress.

4.3.3 For known or suspected significant unit damage, and at the discretion of the Recovery Manager, survey teams may be formed consisting of Operations, Engineering, Maintenance, and Radiation Protection personnel.

4.3.4 These teams shall perform an organized survey of the unit to ascertain the extent of physical damage and areas of contamination/high radiation.

4.3.5 The results of these surveys should be used by the Recovery Manager, the Station Operations Manager (PVNGS Plant Manager or designated alternate), and Radcon/Radwaste Manager (Radiation Services Manager or designated alternate) in planning the approach to be utilized in repairing and bringing the unit back into operation.

4.4 Planning

4.4.1 Under the direction of the Recovery Manager, pertinent recovery organization members, as well as selected offsite personnel, shall address the planning and coordination of the recovery effort.

4.4.2 Such activities as the repair and maintenance of existing station system/components, modification, installation, and decontamination, as well as determining the need for portable shielding and special procedures, shall be discussed, prioritized, and planned.

4.4.3 The Planning/Scheduling Manager (Manager, Scheduling or designated alternate) shall develop an overall schedule to guide the recovery effort.

4.5 Recovery Implementation

4.5.1 Upon definition of the problems to be faced, finalization of the overall recovery plan, development of any special procedures, and allocation of adequate repair equipment and properly trained personnel, actual recovery operations shall begin.

4.5.2 In lieu of any special requirements in place at the time, normal unit practices shall be followed concerning maintenance, repair, modification, decontamination, and personnel exposure control.

CONTROLLED DOCUMENT

4.5.3 The Recovery Manager (Assistant Vice-President, Nuclear Production or designated alternate) shall have overall corporate responsibility for restoring the station to normal operating configuration.

4.5.4 The Radcon/Radwaste Manager (Radiation Services Manager or designated alternate) shall, in addition to developing plans to process and control liquid, gaseous, and solid wastes, periodically estimate total population dose in conjunction with state and federal authorities. He shall also coordinate activities of staff Radiological Engineers and Radiation Protection personnel involved in Radwaste.

4.5.5 The Station Operations Manager (PVNGS Plant Manager or designated alternate) manages day-to-day inplant operations and during recovery is responsible for ensuring that repairs and modifications shall optimize post-recovery plant operational effectiveness and safety.

4.5.6 The Design and Construction Support Manager (Nuclear Construction Manager or designated alternate), focuses necessary engineering, design, and construction resources on those aspects of plant recovery requiring redesign, modification, or new construction and directs and coordinates NSSS and balance-of-plant engineering and construction/repair work.

4.5.7 The Technical Support Manager (Manager Technical Support or designated alternate) shall provide analysis, plans, schedules, and procedures in direct support of plant operations.

4.5.8 The Quality Assurance Manager (Manager Corporate Quality Assurance or designated alternate) shall insure that the overall conduct of recovery operations is performed in accordance with corporate policy and rules and regulations governing activities which may affect public health and safety.

4.5.9 The Administrative/Logistics Manager (Manager Administrative Services or designated alternate) shall supply administrative, logistic, communications, and personnel support for the recovery operation.

4.5.10 The Manager, ANPP Communications or designated alternate shall coordinate the flow of information to the media concerning recovery operations.

4.5.11 As the recovery operation proceeds, any unforeseen problems which are encountered shall be evaluated and factored into the overall recovery plan. The schedule should be adjusted accordingly.

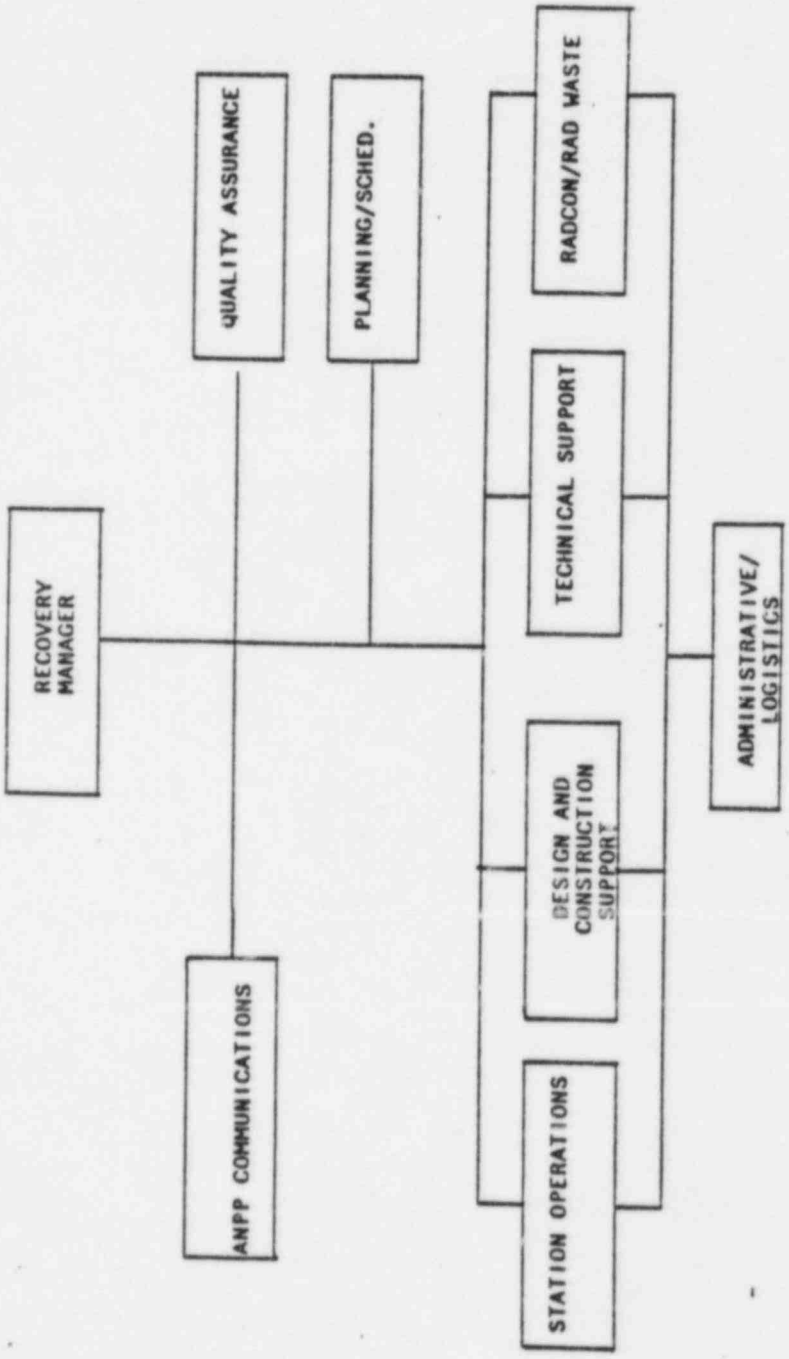
4.5.12 Upon completion of the recovery effort, Technical Specifications compliance shall be verified prior to beginning normal unit operations.

4.5.13 Each individual in the Recovery Organization, upon completion of the recovery effort, shall submit any written documentation to the Recovery Manager who ensures it is forwarded to Emergency Planning and Preparedness Department for storage in accordance with 9N219.05.00, "Document/Record Turnover Control."

4.6 Training

4.6.1 In consideration of the situation to be handled, special training material should be developed and training conducted for special work tasks to the maximum extent possible.

POST-EMERGENCY RECOVERY ORGANIZATION
PALO VERDE NUCLEAR GENERATING STATION (PVNGS)



4

RECOVERY MANAGER RESPONSE

Position Filled By: Assistant Vice-President, Nuclear Production or designated alternate.

Responsibilities: The Recovery Manager shall have overall corporate responsibility for restoring the station to normal operating configuration.

ACTIONS:

1. EOD evaluate plant conditions.

2. If plant conditions meet prerequisites for recovery in EPIP-31, the EOD should:

   (1) Request the Recovery Organization meet in the EOF.

   (The Recovery Manager may assign personnel to the Recovery Organization based on available individuals from management levels of appropriate departments.)

   - Station Operations Manager
   - Design and Construction Manager
   - Radcon/Radwaste Manager
   - Technical Support Manager
   - Administrative and Logistics Manager
   - Planning and Scheduling Manager
   - Manager, ANPP Communications
   - QA Manager
   - NRC

   (2) Direct Government Liaison Engineer to inform offsite facilities over the NAN of current plant conditions.

   (3) Direct EOF Contact to inform JENC and CHIC of current plant conditions.

RECOVERY MANAGER RESPONSE

(4) Direct Technical Analysis Coordinator, or other member of EOF staff, to inform CEC of current plant conditions.

(5) Inform Recovery Organization and NRC representatives that the prerequisites for downgrading have been met. Ask NRC if they concur that we move from a classified emergency to Recovery Operations.

(6) Indicate that:

- Plant conditions are stable.
- Release terminated or within operating license limits.
- Preliminary surveys of the Unit completed.
- Radiation levels decreasing or stable.
- Radiation Protection will authorize re-entry.

3. If the NRC concurs "downgrade" to Recovery Operation:

(1) EOD or alternate call State TOC and indicate downgrading to Recovery.

(2) Inform the CHIC/JENC of Recovery. Instruct CHIC to coordinate final news briefing at JENC and facilitate transfer of press operations to the Forward News Centery and/or CHIC as appropriate.

(3) Call each facility and inform them that they are requested to remain in their facility until specifically directed back to their normal work location or Recovery assignment.

4. Recovery implementation meeting

(1) Assessment of current status (Unit condition).

(2) Assess personnel exposures and need for additional decontamination.

(3) Areas contaminated; access with protective gear, or no access.

4

RECOVERY MANAGER RESPONSE

(4) Assessment of hardware.

(5) Plan to achieve cold shutdown.

(6) Plan to recover buildings or areas.

(7) Need for offsite support.

(8) Plan to record/document event details.

(9) Plan to produce information for public, media, employees, and other audiences.

(10) Plan for logistical support.

(11) Accounting for the costs and preliminary estimates to owners.

(12) NRC involvement and interfaces.

(13) Assign work groups, tasks and staffing.

5. Completion of Recovery effort.

(1) Request all members of the Recovery Organization to submit all documents to the Recovery Manager for forwarding to the Emergency Planning and Preparedness Department.

Arizona Nuclear Power Project

PROC NO: 8N718.04.00
REVISION: 3
PAGE OF
DATE: 01/02/86

TITLE: EMERGENCY PLAN TRAINING

RECORD OF CHANGES AND REVISIONS

PAGE	REVISION	PAGE	REVISION	PAGE	REVISION

Approved By:

V G Haynes
Signature

1/15/86
Date

Effective Date:

1/27/86

PV216-08A (8-84)

Form 1N001.02A
Rev. 0

TITLE: EMERGENCY PLAN TRAINING

1.0 PURPOSE AND SCOPE

1.1 This Procedure implements the ANPP policy to provide Emergency Plan training appropriate to the needs of ANPP and APS personnel, to on-site and off-site personnel who functionally participate in Emergency Plan activities, and to certain affected segments of the public.

1.2 This Procedure describes methods of providing and documenting Emergency Plan training for on-site and off-site Emergency Plan participants and for appropriate segments of the public.

1.3 This Procedure meets the functional definition of an Emergency Plan Implementing Procedure and as such, shall require an annual (12 month) review and filing with the NRC.

2.0 DEFINITIONS AND ABBREVIATIONS

2.1 CEC - Corporate Emergency Center

2.2 CHIC - Corporate Headquarters Information Center

2.3 EOF - Emergency Operations Facility

2.4 EPIP - Emergency Plan Implementing Procedure

2.5 JENC - Joint Emergency News Center

2.6 OSC - Operations Support Center

2.7 PCN - Procedure Change Notice

2.8 STSC - Satellite Technical Support Center

2.9 TSC - Technical Support Center

2.10 Yearly Training Cycle - A cycle of training where periodic retraining is required twelve (12) months from the completion date of the last successfully completed course. In the event retraining is completed in less than twelve (12) months, the retraining date may be adjusted to twelve (12) months from the date of completion.

2.11 Retraining Date - That date by which retraining in a particular training course should be received and successfully completed. The retraining date is the last day of the month in which an individual completed a particular course in the previous year.

3.0 RESPONSIBILITIES

3.1 Manager, Emergency Planning shall be responsible for:

3.1.1 Reviewing the contents of courses developed for Emergency Plan training and for ensuring that off-site (excluding EOF) Emergency Plan training is conducted.

3.1.2 Providing to the PVNGS Training Manager a listing of personnel assigned to positions by Social Security Number vice job code who require initial training.

3.1.3 Providing to supervisors on a bimonthly basis, the Emergency Plan Staffing List for review and update of personnel currently assigned to their group.

3.1.4 Notifying the PVNGS Training Manager of any Procedure Change Notice (PCN) or revision to an Emergency Plan Implementing Procedure (EPIP).

3.1.5 Coordinating training for off-site organizations involved in rendering assistance to PVNGS (corporate, news media, external assisting agencies) as required.

3.1.6 Ensuring the Emergency Planning Staffing List is current after receiving input from the PVNGS Training Manager and/or responsible supervisors.

3.1.7 Providing to all ANPP employees each calendar year, a letter describing the Onsite Siren System, its sounds, actions to be taken and the phone number of recorded siren sounds.

3.2 Manager, Plant Services

Responsible for development and implementation of appropriate Emergency Plan training for ANPP personnel that have specific on-site emergency plan responsibilities.

3.3 PVNGS Training Manager shall be responsible for:

3.3.1 Updating, preparing, approving, coordinating and conducting on-site PVNGS Emergency Response Training (On-shift, On-site and EOF ANPP personnel).

3.3.2 Providing to the Manager, Emergency Planning, on a bi-monthly basis, names of individuals who are now fully qualified for inclusion on the Emergency Plan Staffing List.

3.4 ANPP Supervisors shall be responsible for:

3.4.1 Ensuring their designated personnel maintain Emergency Plan qualifications by meeting all applicable Emergency Plan Training/Retraining requirements within the yearly training cycle.

3.4.2 Reviewing the Emergency Plan Staffing List, as provided, and forwarding any personnel additions or deletions to the Manager, Emergency Planning. The lack of response by a supervisor shall be construed as no changes to the staffing list were necessary at that time.

3.5 Individual employees are responsible for attending Emergency Plan Training/Retraining on dates assigned by their supervisor.

4.0 PROCEDURE

On-shift, On-site and EOF Staff training shall be conducted in accordance with References 5.1.1, 5.1.2, 5.2.1. Offsite staff training shall be conducted in accordance with Reference 5.1.6.

4.1 Basic Training and Indoctrination

4.1.1 Personnel requiring unescorted access into the security protected area shall receive general instructions on the Emergency Plan annually as part of Site Access (Re)Training.

4.2 Emergency Organization Training

4.2.1 ANPP personnel assigned to the On-shift, On-site or Off-site Emergency Organizations shall receive initial and annual retraining specific to their emergency assignment or facility (See Attachment 1, 2 and 3).

4.2.1.1 Personnel should be rescheduled for Emergency Plan retraining on, or before, the retraining date for that course.

4.2.1.2 The individual may exceed the retraining date by up to 90 days without changing the yearly training cycle for that course.

4.2.1.3 If the 15-month training cycle is exceeded any authority or qualification based on that training shall be rescinded. Initial Emergency Plan training shall then be required to restore qualification.

4.2.2 Personnel who are unable to successfully complete an initial training class shall be rescheduled for that class or, at the discretion of the instructor may receive remedial training.

4.2.3 Personnel who are unable to pass the retraining examination shall be rescheduled for initial training of that class.

4.2.4 Additional retraining of individuals shall be conducted whenever necessitated by significant revisions to the Emergency Plan and/or implementing procedures as determined by the Manager, Emergency Planning.

4.2.5 In addition to formal classroom instruction, drills and exercises shall be conducted to enable personnel to further develop their skills in dealing with an emergency.

4.2.6 Annually, the Manager, Emergency Planning shall review the lesson plans used for teaching emergency planning courses.

4.3 Off-site Agency Training

4.3.1 The Manager, Emergency Planning shall ensure coordination of annual training for members of the following off-site support agencies:

- Maricopa County Department of Civil Defense and Emergency Services.
- Arizona Radiation Regulation Agency.
- Maryvale Samaritan Hospital.
- Good Samaritan Medical Center.
- Backup Ambulance Service.
- Bechtel Fire Department.
- Others as deemed necessary.

4.3.2 Training should be specific to the agencies' response assignment and, at a minimum, include the following:

- Basic radiation protection and emergency dosimetry.
- Emergency response procedures.
- Interactions with the ANPP emergency organization.

4.3.3 The PVNGS Training Manager may assist the Emergency Planning Department as necessary to conduct training.

4.4 Media Familiarization

4.4.1 Annually, in cooperation with state and county government, training shall be given to local and regional news media. The program will include:

- PVNGS Emergency Plan and EPIPs.
- Basic information concerning PVNGS operation and radiation.
- Locations and means for release of public information in an emergency.
- Familiarization tour of the Joint Emergency News Center.

4.4.2 The ANPP Public Information Department, with the assistance of the Emergency Planning Department, shall conduct the news media familiarization.

4.5 Documentation

4.5.1 On-shift, On-site and EOF Staff Emergency Response Personnel Training shall be documented in accordance with References 5.1.3 and 5.1.4. The PVNGS Training Department shall maintain these records.

4.5.2 Off-site staff training shall be documented in accordance with Reference 5.1.6. The Manager, Emergency Planning shall maintain these records.

4.5.3 Lesson plans shall be used for all classroom instruction (References 5.1.1, 5.1.2). All lesson plans shall be reviewed and updated annually or as required due to EPIP revision and documented by the reissuing of the lesson plans.

4.5.4 Written examinations shall be administered, as required, with an established minimum passing score.

4.5.5 Lesson plans and examinations are not required for off-site agency training. Briefing forms and outline are an acceptable means of documentation.

5.0 REFERENCES

5.1 Implementing References

5.1.1 Procedure 8N718.01.00, Systematic Training Development

5.1.2 PVNGS Procedure 80PR-0ZZ01, Training Program

5.1.3 PVNGS Procedure 81AC-0ZZ01, PVNGS Training Records

5.1.4 ANPP Procedure 8N718.09.00, ANPP Training Approval, Registration and Documentation.

5.1.5 PVNGS Procedure 83TR-0ZZ04, General Employee Training Pathway

5.1.6 ANPP Department Instruction 8I718.04.01, Emergency Planning Off-site Training Program

5.2 Developmental References

5.2.1 Policy 8P718.00.00, Qualification, Training and Certification Policy

5.2.2 Code of Federal Regulations, Title 10, Chapter 1, Part 50.47 (10CFR50.47), "Emergency Plans"

5.2.3 Code of Federal Regulations, Title 10, Chapter 1, Appendix E (10CFR50 Appendix E), "Emergency Planning and Preparedness for Production and Utilization Facilities"

5.2.4 Regulatory Guide 3.42 "Emergency Planning in Fuel Cycle Facilities and Plants Licensed Under 10CFR Parts 50 and 70"

5.2.5 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

5.2.6 PVNGS Emergency Plan

6.0 FORMS AND ATTACHMENTS

6.1 Attachment 1, Emergency Plan Training Assignement and Course Content

6.2 Attachment 2, Corporate Emergency Response Personnel Emergency Plan Training Program

6.3 Attachment 3, Joint Public Information Personnel Emergency Plan Training Program

EMERGENCY PLAN TRAINING ASSIGNMENT AND COURSE CONTENT

The following initial training/retraining courses shall be provided to the designated emergency response personnel as listed.

Overview (NGE01/NGE09)
- Status Board Keeper/Clerical Aides
- DDC
- Dosimetry Clerk
- Computer Support

Emergency Coordinator (NGE02)
- Emergency Coordinator (On-Shift)
- Emergency Coordinator (On-Site)
- Operations Advisor
- Operations Coordinator

STSC/OSC Staff (NGE03/NGE11)
- STSC Communicator
- OSC Coordinator
- Repairs Coordinator
- Nurse

TSC/EOF Staff (NGE04/NGE12)
- NRC Liaison, Operations
- Technical Engineering Coordinator
- Security Director
- Information Monitor
- Hazards Control Coordinator
- Computer Support Coordinator/Staff
- Reactor Analyst
- Chemistry Coordinator
- Technical Engineering Assistant/STA
- Personnel Resources Coordinator
- Electrical Coordinator

EMERGENCY PLAN TRAINING ASSIGNMENT AND COURSE CONTENT

TSC/EOF Staff (NGE04/NGE12) (Continued)
- Mechanical Coordinator
- I and C Coordinator
- Technical Analysis Coordinator
- Emergency Maintenance Coordinator
- Emergency Operations Director
- Administrative and Logistics Coordinator
- Government Liaison Engineer
- EOF Contact
- Logistics Communicator
- Security Coordinator
- Offsite Technical Representative
- NRC Liaison, Health Physics
- Radiological Protection Coordinator
- Radiological Assessment Coordinator
- Radiological Protection Support Staff

Fire Department Training (NGE05/NGE13)
- Fire Department Personnel

Surveys and Sampling (NGE06/NGE14)
- Radiation Protection Technicians (Unit Technicians and Radioactive Waste Technicians)
- Field Team Communicator
- Radiological Assessment Communicator

Dose Assessment (NGE07/NGE15)
- Radiological Protection Coordinator
- Radiological Assessment Coordinator
- Radiation Protection Support Staff
- Radiation Protection Monitor

Subjects contained within each training course are listed below:

TITLE: EMERGENCY PLAN TRAINING

EMERGENCY PLAN TRAINING ASSIGNMENT AND COURSE CONTENT

Overview
- NGE01 - Overview for Support Staff
- NGE09 - Retraining for Support Staff

Emergency Coordinator (Initial and Retraining)
- NGE02 - Overview for Emergency Coordinator
  - STSC/TSC/EOF for Emergency Coordinators
  - Emergency Classifications
  - Emergency Exposure Guidelines/KI Administration

STSC/OSC Staff
- NGE03 - Overview for STSC/OSC Staff
  - STSC Activation
  - OSC Activation
  - Search and Rescue
  - Reentry
  - Emergency Exposure Guidelines/KI Administration
- NGE11 - Retraining for STSC/OSC Staff

TSC/EOF Staff
- NGE04 - Overview for TSC/EOF Staff
  - TSC Activation
  - EOF Activation
  - Emergency Exposure Guidelines/KI Administration
- NGE12 - Retraining for TSC/EOF Staff

Fire Department Training
- NGE05 - Overview for Fire Department
  - Actuation and Responsibilities
- NGE13 - Retraining for Fire Department

Surveys and Sampling
- NGE06 - Overview for STSC/OSC Staff
  - OSC Activation
  - STSC Activation
  - Search and Rescue
  - Emergency Exposure Guidelines/KI Administration

EMERGENCY PLAN TRAINING ASSIGNMENT AND COURSE CONTENT

Surveys and Sampling (Continued)
- Surveys and Sampling
- Surveys and Sampling Practical

NGE14 - Retraining for Surveys and Sampling

Dose Assessment

NGE07
- Fundamentals of Dose Assessment
- Dose Assessment Procedure Practical
- Dose Assessment Computer Practical

NGE15 - Retraining for Dose Assessment

CORPORATE EMERGENCY RESPONSE PERSONNEL EMERGENCY PLAN TRAINING PROGRAM

The following initial training/retraining subjects shall be provided to all Corporate Emergency Response person- nel:

1. Principles of nuclear reactors (not given to CEC technical staff, i.e., Corporate Technical Coordinator and Corporate Engineering Support Coordinator primaries, alternates and support staff).

2. Emergency classifications.

3. Emergency notification callout.

4. Emergency facilities: functions and interfaces.

5. Corporate Emergency Procedures - overview.

6. CEC function and positions.

7. CEC notification, activation, and operatin.

Attachment 2

JOINT PUBLIC INFORMATION PERSONNEL
EMERGENCY PLAN TRAINING PROGRAM

The following initial training/retraining subjects shall be provided to all Public Information personnel:

1. Principles of nuclear reactors.
2. Principles of radiation.
3. Emergency classifications.
4. Emergency facilities and telecommunications.
5. Government agencies - emergency response.
6. Flow of public information.

Attachment 3

CONTROLLED DOCUMENT

EMERGENCY PLAN IMPLEMENTING PROCEDURE TRANSMITTAL

CONTROLLED DOCUMENT LIST I

EPIP NO [redacted] DATE 12/3//85

A	
V. Elish	6-8
G. Fiorelli	8-1
R. Selman	5-37
Compliance	5-L7
Leon Brown	5-33
J. G. Sarver	5-102
V. Rhodes	1-1
Thomas P. Hillmer	5-121
T. Exum	5-40
DDC Library	1-2
M. W. Lantz	5-35
Penny Egebrecht	5-91
Harry Bieling	17-9
Gerald Simiele	5-128
J. Cederquist	5-20
T. Shriver	5-8
T. Barsuk	5-86
D. Best	5-88
R. Johnson	5-42
Sec Cpt	15-1
Michael Deblo	5-41
EOF	17-1A
EOF	17-1B
EOF	17-1C
EOF	17-1D
EOF (Room 12)	17-1E
EOF	17-1F
Unit 2 Rad Protection	5-95
Martha Roettger	5-114
Mike Crusa	17-4
M.L. Clyde	5-79
Dennis Yows	5-36
Bill Knighton	15-2
Russ Papworth	5-7
Bruce Rash	13-18
Dan Phillips	13-16

B	
J. M. Allen	5-31
W. Fernow	5-14
C. Anderson	6-7
Sim Obs Rm	5-89
C. R. Dunaway	5-9
D. Nelson	5-18
M. Whitaker	5-38
J. Tench	5-19
A. Perouthka	6-6
J. R. Bynum	5-22
B. Simmons	6-10
F. Hicks	6-9

C	
Unit 1 Control Room	5-2B
Kris Oberdorf	5-6
Darrel Nissen	3-2
Unit 1 Radwaste	5-43
A. Porter	3-3
T. Warren	5-21
Startup Complex (Upstairs)	2-10A

D	
B. Rogers/TSC	5-94
TSC	3-5
Galon Olson	3-8
Steve Grove	3-4
Greg Roettger	5-112
Maintenance Manager	3-11
TSC E Plan Anal	3-5A
John Kirby	2-4
Unit 2 Control Room	5-25
Bob Adney	5-93

E	
D. Fasnacht	19-1
M. Zimmerman	20-1
Jim St. John	14-47
Dan Canady	13-42

F	
WRF/DDC	1-7

G	
Unit III Control Rm.	5-39
Unit III I&C	3-33
Unit III Radiation Protection	5-96

FOR NRC	
TAKE TO KARL GROSS ON R/A	
Jack Martin/Adm.	8-8
[redacted]	8-9A
Gail M. Temple	8-5
Falk Kantor	8-6

PROCEDURE GROUP	
Dennis Yows	5-36A thru 5-36I
Emergency Kits coordinate w/ J. Sims	

CONTROLLED DOCUMENT

REMOVE COVER SHEETS AND REPLACE WITH SHEETS PROVIDED

EPIP #	REV.	PCN #
02	4	
03	9	
03	9	01
03	9	02
04	8	
04	8	01
04	8	02
05	8	
05	8	01
05	8	02
06	8	
06	8	01
06	8	02
12	4	
14A	6	
14A	6	01
14B	3	
14C	1	
15	3	
16	3	
18	3	
19	3	
20	3	
20	3	01
21	3	
22	3	
23	3	
24	3	
25	3	
26	3	
27	4	
31	3	
33	3	
33	3	01
38	7	
56	2	
57	1	

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-02	
EMERGENCY CLASSIFICATION	REVISION 4	Page 1 of 27

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PVNGS # 8-9B

DEPT. HEAD Dennis D. Voss DATE 8/8/85

PRB/PRG/TRRG REVIEW [signature] DATE 8/16/85

APPROVED BY [signature] DATE 8/20/85

EFFECTIVE DATE 08.21.85

DN-1519A/0407A

PV216-000A (6/82)

PVNGS EMERGENCY P.
IMPLEMENTING PROCE

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PVNGS # 8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

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INTENT CHANGE: NO
YES

1. PROCEDURE TITLE Notification of Unusual Event Implementing Actions

2. PROCEDURE NUMBER EPIP-03 REV. 9 PCN 2

2a. Manager concurrence to exceed 5 PCNs N/A DATE 10/25/85

3. REASON FOR PCN: To update Emergency Notification Call List

4. EXPIRATION: Next Revision

5. AFFECTED STEPS: Appendix A

CHANGE REQUIRED: Delete Page 11a; Insert 11b

6. PREPARED BY:
Gerald A Simiele 10/25/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DA

7. TEMPORARY APPROVAL:
N/A
SIGNATURE DATE

N/A
SS/Assist. SS DA

8. DEPT. MANAGER
For D.C. Yows 10/25/85
SIGNATURE DATE

9. PRB/PRC/TRRG: 10/25/85
SIGNATURE DA

10. APPROVED BY: 10/31/85
DEPARTMENT MANAGER'S SIGNATURE

11. DATE EFFECTIVE DA

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PVNGS

PALO VERDE NUCLEAR GENERATING STATION # 8-9B

PROCEDURE CHANGE NOTICE

PAGE 1 of 1

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INTENT CHANGE: NO [ ]
YES [ ]

1. PROCEDURE TITLE Notification of Unusual Event Implementing Actions

2. PROCEDURE NUMBER EPIP-03 REV. 9 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update phone numbers found in Appendix A and Appendix B.

4. EXPIRATION: Next Revision

5. AFFECTED STEPS:

	CHANGE REQUIRED:
Appendix A	Delete Page 11; Insert 11A
Appendix B	Delete Page 12; Insert 12A

6. PREPARED BY: Harold A. Simicle SIGNATURE 9/16/85 DATE

ENTERED IN PROCEDURE BY: SIGNATURE DAT

7. TEMPORARY APPROVAL: N/A SIGNATURE DATE

N/A SS/Assist. SS DAT

8. DEPT. MANAGER: SIGNATURE 9/19/85 DATE

9. PRB/PRC/TRRG: SIGNATURE 9/20/85 DAT

10. APPROVED BY: DEPARTMENT MANAGER'S SIGNATURE 9/20/85 DAT

11. DATE EFFECTIVE

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-03	
NOTIFICATION OF UNUSUAL EVENT IMPLEMENTING ACTIONS	REVISION 9	Page 1 of 26

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PVNGS # 8-9B

DEPT. HEAD [signature] DATE 9/9/85

PRB/PRG/TRRG REVIEW [signature] DATE 9/10/85

APPROVED BY [signature] 12/2/85 DATE 9/10/85

EFFECTIVE DATE 09/10/85

DN-1598A/0787A

PV216-000A (8/82)

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PVNGS EMERGENCY PROCEDURES

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PVNGS # 8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 OF 1

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INTENT CHANGE: NO / YES

1. PROCEDURE TITLE: Alert Implementing Actions

2. PROCEDURE NUMBER: EPIP-04 REV. 8 PCN

2a. Manager concurrence to exceed 5 PCNs: N/A DATE

3. REASON FOR PCN: To update Emergency Notification Call List

4. EXPIRATION: Next Revision

5. AFFECTED STEPS: Appendix A

CHANGE REQUIRED: Delete 13a; Insert 13b

6. PREPARED BY: Gerald A. Simiele 10/25/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DATE

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

N/A
SS/Assist. SS DATE

8. DEPT. MANAGER: Fred A. York 10/25/85
SIGNATURE DATE

9. PRB/PRC/TRRG: 10/31/85
SIGNATURE DATE

10. APPROVED BY: 10/31/85
DEPARTMENT MANAGER'S SIGNATURE DATE

11. DATE EFFECTIVE

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PVNGS # 8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

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INTENT CHANGE: NO ☐ YES ☐

1. PROCEDURE TITLE Alert Implementing Actions

2. PROCEDURE NUMBER EPIP-04 REV. 8 PCN

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update phone numbers found on Appendix A and Appendix B.

4. EXPIRATION: Next Revision

5. AFFECTED STEPS:

Appendix A
Appendix B

CHANGE REQUIRED:

Delete Page 13; Insert 13A
Delete Page 14; Insert 14A

6. PREPARED BY:

Gerald A. Ainiele 9/16/85
SIGNATURE DATE

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7. TEMPORARY APPROVAL:

N/A
SIGNATURE DATE

N/A
SS/Assist. SS DAT

8. DEPT. MANAGER:

X [signature] 9/19/85
SIGNATURE DATE

9. PRB/PRG/TRRG: 9/20/85
[signature] 9/19/85
SIGNATURE DAT

10. APPROVED BY: [signature] 12/12/85
DEPARTMENT MANAGER'S SIGNATURE

9/19/85 DAT

11. DATE EFF 9/19/85 DAT

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-04	
ALERT IMPLEMENTING ACTIONS	REVISION 8	Page 1 of 38

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PVNGS # 8-9B

DEPT. HEAD _____ DATE 9/9/85

PRB/PRG/TRRG REVIEW _____ DATE 9/10/85

APPROVED BY _____ DATE 9/10/85

EFFECTIVE DATE 09.10.85

DN-1599A/0180A

PV216-08DA (6/82)

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PVNGS EMERGENCY
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PVNGS #8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 of 1

INTENT CHANGE: NO [X]
YES [ ]

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1. PROCEDURE TITLE Site Area Emergency Implementing Actions

2. PROCEDURE NUMBER EPIP-05 REV. 8 PCN 2

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update Emergency Notification Call List

4. EXPIRATION: Next Revision

5. AFFECTED STEPS: Appendix A

CHANGE REQUIRED: Delete Page 12a; Insert 12b

6. PREPARED BY:
Harold A. Simmons 10/25/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DAT

7. TEMPORARY APPROVAL:
SIGNATURE DATE

SS/Assist. SS DAT

8. DEPT. MANAGER:
For D.C. Yours 10/25/85
SIGNATURE DATE

9. PRB/PRC/TRRG: 10/31/85
SIGNATURE DAT

10. APPROVED BY: 11/2/85
DEPARTMENT MANAGER'S SIGNATURE

11. DATE EFF 10/31/85 DAT

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PVNGS #89B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 of

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INTENT CHANGE: NO [ ]
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1. PROCEDURE TITLE Site Area Emergency Implementing Actions

2. PROCEDURE NUMBER EPIP-05 REV. 8 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update phone numbers found in Appendix A and Appendix B.

4. EXPIRATION: Next Revision

5. AFFECTED STEPS:

Appendix A
Appendix B

CHANGE REQUIRED:

Delete Page 12; Insert 12A
Delete Page 13; Insert 13A

6. PREPARED BY:

Gerald A. Trimble 9/4/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:

SIGNATURE DAT

7. TEMPORARY APPROVAL:

N/A
SIGNATURE DATE

N/A
SS/Assist. SS DAT

8. DEPT. MANAGER:

SIGNATURE 9/9/85 DATE

9. PRB/PRG/TRRG: 9/29/85
SIGNATURE DATE

10. APPROVED BY: 12-2-85
DEPARTMENT MANAGER'S SIGNATURE DATE

9/30/85
DATE

11. DATE EFF

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PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-05	
SITE AREA EMERGENCY IMPLEMENTING ACTIONS	REVISION 8	Page 1 of 39

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PVNGS # 8-9B

DEPT. HEAD _____ DATE 8/9/85

PRB/PRG/TRRG REVIEW _____ DATE 9/10/85

APPROVED BY _____ DATE 9/10/85

EFFECTIVE DATE 09.10.85

DN-1600A/0787A

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PVNGS #8-98

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 of

DDC
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INTENT CHANGE: NO
YES

1. PROCEDURE TITLE General Emergency Implementing Actions

2. PROCEDURE NUMBER EPIP-06 REV. 8 PCN 2

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update Emergency Notification Call List

4. EXPIRATION: Next Revision

5. AFFECTED STEPS: Appendix A

CHANGE REQUIRED: Delete 12a; Insert 12b

6. PREPARED BY: Gerald A. Arnold 10/25/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DA

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

N/A
SS/Assist. SS DA

8. DEPT. MANAGER: FOR D.C. Mims 10/31/85
SIGNATURE DATE

9. PRB/PRG/TRRG: 10/31/85
SIGNATURE DA

10. APPROVED BY: 12/2/85
DEPARTMENT MANAGER'S SIGNATURE 10/31/85

11. DATE EFF

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DAT

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PVNGS # 8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

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INTENT CHANGE: NO ☒ YES ☐

1. PROCEDURE TITLE General Emergency Implementing Actions

2. PROCEDURE NUMBER EPIP-06 REV. 8 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update phone numbers found in Appendix A and Appendix B.

4. EXPIRATION: Next Revision

5. AFFECTED STEPS:

Appendix A
Appendix B

CHANGE REQUIRED:

Delete Page 12; Insert 12A
Delete Page 13; Insert 13A

6. PREPARED BY:

Harold A Kimble 9/6/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:

SIGNATURE DATE

7. TEMPORARY APPROVAL:

N/A
SIGNATURE DATE

N/A
SS/Assist. SS DATE

8. DEPT. MANAGER:

X [signature] 9/19/85
SIGNATURE DATE

9. PRB/PRG/TRRG:

[signature] 9/20/85
SIGNATURE DATE

10. APPROVED BY: [signature] 12/2/85
DEPARTMENT MANAGER'S SIGNATURE DATE

9/20/85

11. DATE EFFECTIVE DATE

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-06	
GENERAL EMERGENCY IMPLEMENTING ACTIONS	REVISION 8	Page 1 of 39

DEPT. HEAD _____ DATE 9/9/85

PRB/PRG/TRRG REVIEW _____ DATE 9/11/85

APPROVED BY _____ DATE 9/16/85

EFFECTIVE DATE 09-10-85

DN-1601A/0787A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-12	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
OPERATIONS SUPPORT CENTER ACTIVATION	REVISION 4	Page 1 of 16

DEPT. HEAD [signature] DATE 9/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 9/4/85

APPROVED BY [signature] DATE 12/2/85 9/4/85

EFFECTIVE DATE ~~09-11-85~~ 09-12-85

DN-1666A/0196A

PVNGS EMERGENCY P... PROCE...

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PVNGS #8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

INTENT CHANGE: NO [X] YES [ ]

1. PROCEDURE TITLE Release Rate Determination

2. PROCEDURE NUMBER EPIP-14A REV. 6 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To collect graph in App E to meet License commitments.

4. EXPIRATION: Next revision

5. AFFECTED STEPS: Page 6 of 7 of App. E

CHANGE REQUIRED: Delete page 6 of 7 of App E & insert 6A of 7, App E

6. PREPARED BY: [signature] 6/25/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:
SIGNATURE DATE

7. TEMPORARY APPROVAL: N/A
SIGNATURE DATE

SS/Assist. SS DATE

8. DEPT. MANAGER: [signature] 6/25/85
SIGNATURE DATE

9. PRB/PRG/TRRG: [signature] 6/25/85
SIGNATURE DATE

10. APPROVED BY: [signature] 7/2/85
DEPARTMENT MANAGER'S SIGNATURE

11. DATE EFFECTIVE 6/25/85 DATE

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14A	
RELEASE RATE DETERMINATION	REVISION 6	Page 1 of 23

DEPT. HEAD Dennis B. Gehrer DATE 3/19/85

PRB/PRG/TRRG REVIEW J.M. Allen DATE 3/29/85

APPROVED BY O.J. Facciolli DATE 4/3/85

EFFECTIVE DATE 04.10.85

DN-1620A/0651A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14B	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
INITIAL DOSE ASSESSMENT	REVISION 3	Page 1 of 54

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PVNGS #8-9B

DEPT. HEAD Dennis B Gow DATE 4/1/85

PRB/PRG/TRRG REVIEW [signature] DATE 4/1/85

APPROVED BY [signature] DATE 4/2/85

EFFECTIVE DATE 04-09-85

DN-1614A/0794A

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-14C	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
CONTINUING DOSE ASSESSMENT	REVISION 1	Page 1 of 61

DEPT. HEAD Dennis B. Gross DATE 4/1/85

PRB/PRG/TRRG REVIEW [illegible] DATE 4/1/85

APPROVED BY [illegible] DATE 4/1/85

EFFECTIVE DATE 04-09-85

DN-9618A/0867A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-15	
PROTECTIVE ACTION GUIDELINES	REVISION 3	Page 1 of 15

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PVNGS #8-9B

DEPT. HEAD Dennis S. [signature] DATE 6/17/85

PRB/PRG/TRRG REVIEW [signature] DATE 6/24/85

APPROVED BY [signature] DATE 6/25/85

EFFECTIVE DATE 06.21.85

DN-1669A/0196A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-16	
INPLANT SURVEYS AND SAMPLING	REVISION 3	Page 1 of 16

DEPT. HEAD Dennis G. Fox DATE 4/24/85

PRB/PRG/TRRG REVIEW O.J. Zeringue DATE 5/3/85

APPROVED BY O.J. Zeringue DATE 5/3/85

EFFECTIVE DATE 05-10-85

DN-1629A/0190A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-18	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
EMERGENCY EXPOSURE GUIDELINES	REVISION 3	Page 1 of 10

DEPT. HEAD _____ DATE 4/24/85

PRB/PRG/TRRG REVIEW _____ DATE 5/3/85

APPROVED BY _____ DATE 12/2/85 5/3/85

EFFECTIVE DATE 05.10.85

DN-1632A/0190A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-19	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
ONSITE EVACUATION	REVISION 3	Page 1 of 19

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PVNGS : # 8-9B

DEPT. HEAD Dennis D. Dow DATE 4/24/85

PRB/PRG/TRRG REVIEW [signature] DATE 5/3/85

APPROVED BY [signature] 12/2/85 DATE 5/3/85

EFFECTIVE DATE 05.10.85

DN-1586A/0188A

PV216-00DA (8/82)

CONTROLLED DOCUMENT

PVNGS EMERGENCY PREPAREDNESS IMPLEMENTING PROCEDURE

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PVNGS # 8-9B

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

PAGE 1 of 1

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INTENT CHANGE: NO [X]
YES [ ]

1. PROCEDURE TITLE Personnel Assembly and Accountability

2. PROCEDURE NUMBER EPIP-20 REV. 3 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update phone numbers found in Appendix A, Appendix B and Appendix F.

4. EXPIRATION: Next Revision

5. AFFECTED STEPS:

	CHANGE REQUIRED:
Appendix A	Delete Page 16; Insert 16A
Appendix A	Delete Page 17; Insert 17A
Appendix B	Delete Page 19; Insert 19A
Appendix F	Delete Page 26; Insert 26A

6. PREPARED BY:

Harold A. Simicle 9/16/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:

SIGNATURE DATE

7. TEMPORARY APPROVAL:

N/A
SIGNATURE DATE

N/A
SS/Assist. SS DATE

8. DEPT. MANAGER:

SIGNATURE DATE

9. PRB/PRG/TRRG:

SIGNATURE DATE

10. APPROVED BY: ORB 12/2/85

DEPARTMENT MANAGER'S SIGNATURE DATE

9/20/85

11. DATE EFFECTIVE DATE

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-20	
PERSONNEL ASSEMBLY AND ACCOUNTABILITY	REVISION 3	Page 1 of 28

DEPT. HEAD Dennis Gross for R.W. Page DATE 2/28/85

PRB/PRG/TRRG REVIEW [signature] DATE 3/6/85

APPROVED BY [signature] 12/2/81 DATE 3/6/85

EFFECTIVE DATE 03.08.85

DN-1588A/0180A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-21	
SEARCH AND RESCUE	REVISION 3	Page 1 of 13

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PVNGS [illegible] # 8-9B

DEPT. HEAD [signature] DATE 6/3/85

PRB/PRG/TRRG REVIEW [signature] DATE 6/7/85

APPROVED BY [signature] 12/2/85 DATE 6/7/85

EFFECTIVE DATE 06-17-85

DN-1602A/0180A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-22	
PERSONNEL INJURY	REVISION 3	Page 1 of 20

DEPT. HEAD Dennis B. Yow for R.W. Page DATE 2/28/85

PRB/PRG/TRRG REVIEW [signature] DATE 3/6/85

APPROVED BY [signature] 12/2/85 DATE 3/6/85

EFFECTIVE DATE 03-08-85

DN-1634A/0190A

PV216-000A (8/82)

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-23	
FIRE FIGHTING	REVISION 3	Page 1 of 7

DEPT. HEAD Dennis S. [signature] DATE 4/22/85

PRB/PRG/TRRG REVIEW [signature] DATE 5/8/85

APPROVED BY [signature] DATE 5/9/85

EFFECTIVE DATE ~~05-10-85~~ 05-17-85 5/10/85

DN-1671A/0196A

CONTROLLED DOCUMENT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-24	PVNGS EMERGENCY IMPLEMENTING PROCE
SECURITY	REVISION 3	Page 1 of 12

DEPT. HEAD [signature] DATE 9/4/85

PRB/PRG/TRRG REVIEW [signature] DATE 9/4/85

APPROVED BY [signature] 12/2/85 DATE 9/4/85

EFFECTIVE DATE 09-12-85

DN-1590A/0180A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-25	
REENTRY FOR EMERGENCY OPERATIONS	REVISION 3	Page 1 of 11

DEPT. HEAD [signature] DATE 6/17/85

PRB/PRG/TRRG REVIEW [signature] DATE 6/24/85

APPROVED BY [signature] DATE 6/25/85

EFFECTIVE DATE 06-21-85

DN-1621A/0188A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-26	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
POTASSIUM IODIDE (KI) ADMINISTRATION	REVISION 3	Page 1 of 11

DEPT. HEAD Dennis G. [illegible] DATE 6/3/85

PRB/PRG/TRRG REVIEW [illegible] DATE 6/7/85

APPROVED BY [illegible] DATE 6/7/85

EFFECTIVE DATE 06-11-85

DN-1622A/0188A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-27	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
POST ACCIDENT SAMPLING AND ANALYSIS	REVISION 4	Page 1 of 21

DEPT. HEAD [signature] DATE 8/10

PRB/PRG/TRRG REVIEW [signature] DATE 8/10

APPROVED BY [signature] DATE 8/10/95

EFFECTIVE DATE 08-10-95

DN-1668A/0200A

PV216-000A (8/92)

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-31	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
RECOVERY	REVISION 3	Page 1 of 12

DEPT. HEAD Dennis B. Gross DATE 4/2/85

PRB/PRG/TRRG REVIEW [illegible] DATE 4/10/85

APPROVED BY [illegible] DATE 4/10/85

EFFECTIVE DATE 04-10-85

DN-1667A/0196A

PALO VERDE NUCLEAR GENERATING STATION

PROCEDURE CHANGE NOTICE

INTENT CHANGE: NO | YES |

1. PROCEDURE TITLE Offsite Assistance

2. PROCEDURE NUMBER EPIP-33 REV. 3 PCN 1

2a. Manager concurrence to exceed 5 PCNs N/A DATE

3. REASON FOR PCN: To update phone numbers listed in Appendix A

4. EXPIRATION: Next Revision

5. AFFECTED STEPS:

	CHANGE REQUIRED:
Appendix A	Delete Page 6; Insert 6A
Appendix A	Delete Page 7; Insert 7A
Appendix A	Delete Page 8; Insert 8A

6. PREPARED BY:

Gerald A. Jones 9/16/85
SIGNATURE DATE

ENTERED IN PROCEDURE BY:

SIGNATURE DAT

7. TEMPORARY APPROVAL:

N/A
SIGNATURE DATE

N/A
SS/Assist. SS DAT

8. DEPT. MANAGER:

SIGNATURE 9/19/85 DATE

9. PRB/PRG/TRRG:

SIGNATURE 9/20/85 DAT

10. APPROVED BY: 12/2/85 9/16/85
DEPARTMENT MANAGER'S SIGNATURE 9/16/85

11. DATE EFFECTIVE DAT

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-33	
OFFSITE ASSISTANCE	REVISION 3	Page 1 of 9

DEPT. HEAD _____ DATE 9/9/85

PRB/PRG/TRRG REVIEW _____ DATE 9/9/85

APPROVED BY _____ DATE 12/4/85

EFFECTIVE DATE ~~12-11-85~~ 09-12-85

DN-1625A/0180A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-38	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
EMERGENCY EQUIPMENT AND SUPPLIES INVENTORY	REVISION 7	Page 1 of 40

DEPT. HEAD Dennis S. Haws DATE 9/14/85

PRB/PRG/TRRG REVIEW [signature] DATE 9/24/85

APPROVED BY [signature] DATE 9/26/85

EFFECTIVE DATE 09-30-85

DN-1670A/0196A

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-56	PVNGS EMERGEN... IMPLEMENTING PROCE...
ULTIMATE HEAT SINK EMERGENCY WATER SUPPLY	REVISION 2	Page 1 of 11

DEPT. HEAD Dennis B Gross DATE 10/23/85

PRB/PRG REVIEW [illegible] DATE 10/31/85

APPROVED BY [illegible] DATE 10/31/85

EFFECTIVE DATE 11-05-85

DN-2050V/0470V

PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE	PROCEDURE NO. EPIP-57	PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURE
CORPORATE EMERGENCY RESPONSE	REVISION 1	Page 1 of 7

DEPT. HEAD _____ DATE 9/4/85

PRB/PRG/TRRG REVIEW _____ DATE 9/4/85

APPROVED BY _____ DATE 12/4/85 8

EFFECTIVE DATE ~~09-11-85~~ 09-12-85

DN-2205V/0520V