FENOC
FirstEnergy Nuclear Operating Company

Beaver Valley Power Station
Route 168
P.O. Box 4
Shippingport, PA 15077-0004

L. William Pearce
Site Vice President

724-682-5234
Fax: 724-643-8069

January 9, 2004
L-04-001

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures

In accordance with 10 CFR Part 50.4, this letter forwards recent revisions of the Beaver Valley Power Station Emergency Preparedness Implementing Procedures to the Nuclear Regulatory Commission. The changes do not decrease the effectiveness of the Plan and the Plan, as changed, continues to meet the requirements of Appendix E of 10 CFR 50. Therefore, 10 CFR Part 50.54(q) requires that these changes be submitted for information only.

There are no regulatory commitments contained in this letter. If there are any questions concerning this submittal, please contact Ms. Susan L. Vicinie, Manager, Emergency Preparedness at 724-682-5767.

Sincerely,

L. William Pearce

Enclosure 1 – Summary of Changes
Enclosure 2 – Plan/Procedure revisions

c: Mr. T. G. Colburn, NRR Senior Project Manager (w/o Enclosure 2)
Mr. P. C. Cataldo, NRC Sr. Resident Inspector (w/o Enclosure 2)
Mr. H. J. Miller, NRC Region I Administrator (2 copies)

A045

Enclosure 1
Summary of Changes

Revisions to
Beaver Valley Power Station
Emergency Preparedness Plan Implementing Procedures

The following is a brief summary of the changes made to the Emergency Preparedness Plan/Implementing Procedures.

EPP Implementing Procedures:

EPP-IP-1.4 TECHNICAL SUPPORT CENTER ACTIVATION, OPERATION AND DEACTIVATION

Revision 20 standardized the format to be consistent with EP procedures. Step 8.3.3 was changed to add a reminder to perform an inventory of the EPP cabinets. Attachment 10 was changed to become forms F01 and F02, associated with this procedure. Likewise, previous Attachments 5, 7 and 8 became forms F03, F04 and F05, respectively. The remaining attachments are now identified as Attachments A through G. All references to attachments and forms, throughout the procedure, were changed to align with the current nomenclature.

EPP-IP-1.5 OPERATIONS SUPPORT ACTIVATION, OPERATION AND DEACTIVATION

Revision 15 standardized the format to be consistent with EP procedures and incorporated organization/position title changes. Step 8.3.4 was changed to add a reminder to perform an inventory of EPP equipment. Attachments 3 through 7 were changed to become forms F01 through F05, associated with this procedure. Additionally, Attachments X, Y and Z of administrative procedure 1/2-ADM-1110 were incorporated as forms F06, F07 and F08, respectively. All references to attachments and forms, throughout the procedure, were changed to align with the current nomenclature.

EPP-IP-1.6 EMERGENCY OPERATIONS FACILITY ACTIVATION, OPERATION AND DEACTIVATION

Revision 17 standardized the format to be consistent with EP procedures. Step 8.3.3 was changed to add a reminder to perform an inventory of EPP equipment. Attachments 1, 3 and 4 were changed to become forms F01 through F03, associated with this procedure. Additionally, Attachments C and T of administrative procedure 1/2-ADM-1110 were incorporated as forms F04 and F05, respectively. Previous Attachment 2 was incorporated as Attachments A through D, and Figure 1 is now included in Attachment A. All references to attachments and forms, throughout the procedure, were changed to align with the current nomenclature.

EPP-IP-1.7 EMERGENCY RESPONSE ORGANIZATION (ERO) TEAMS

Revision 13 revised a step in Attachment A to include a reminder to perform a facility inventory.

EPP-IP-2.6 ENVIRONMENTAL ASSESSMENT AND DOSE PROJECTION CONTROLLING PROCEDURE

Revision 15 standardized the format to be consistent with EP procedures and made various organization/position title and clarification changes. The "EA&DP Equipment Checklist" (Attachment B) now includes a cell phone as item 10, with the remaining items being renumbered. The first two pages of Attachment D were deleted (information is contained in EPP-I-2, 3, 4, and 5) and the remainder was re-titled "Termination of Radioactivity Releases During Emergencies."

EPP-IP-2.6.5 ALTERNATE METEOROLOGICAL PARAMETERS

Revision 11 standardized the format to be consistent with EP procedures and made an organization title and a clarification change.

EPP-IP-2.6.6 DOSE PROJECTION BY HAND CALCULATION KNOWN ISOTOPIC RELEASE

Revision 7 standardized the format to be consistent with EP procedures and added I-135 to the dose factors listed in Worksheet 2.6.6-1 (Attachment A).

EPP-IP-3.5 TRAFFIC AND ACCESS CONTROL

Revision 10 standardized the format to be consistent with EP procedures and clarified Step 6.1.1.

EPP-IP-7.1 EMERGENCY EQUIPMENT INVENTORY AND MAINTENANCE PROCEDURE

Revision 16 added minor clarification changes to Steps 8.1.1.1, 8.1.1.2, 8.1.1.5, 8.2.8.2, 8.2.8.3 and 8.3.1. New Step 8.1.1.2.1 was also added for clarification.

EPP-IP-9.4 ACTIVATION, OPERATION, AND DEACTIVATION OF THE JOINT PUBLIC INFORMATION CENTER (JPIC)

Revision 11 incorporated organization changes into Step 8.1.6 and into the job guidelines for the Information Coordinator in Attachment A. Clarifications were also made to the job guidelines for the Emergency Management Agency (EMA) Contact Representative in Attachment A. Radio station WOVK – 98.7 FM (Wheeling) was added to the Media Monitoring Guidelines in Attachment A.

EPP-IP-ANNEX C MAJOR INJURY INVOLVING RADIOACTIVE CONTAMINATION – THE MEDICAL CENTER, BEAVER

Revision 10 standardized the format to be consistent with EP procedures and made changes to reflect updated hospital policies and equipment.

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX

INSTRUCTIONS

1/2-EPP-I-1a	Recognition and Classification of Emergency Conditions	Revision 4
1/2-EPP-I-1b	Recognition and Classification of Emergency Conditions	Revision 4
1/2-EPP-I-2	Unusual Event	Revision 19
1/2-EPP-I-3	Alert	Revision 18
1/2-EPP-I-4	Site Area Emergency	Revision 18
1/2-EPP-I-5	General Emergency	Revision 19

IMPLEMENTING PROCEDURES

1/2-EPP-IP — 1 Series - Activation

1.1	Notification	Revision 31
1.2	Communications and Dissemination of Information	Revision 18
1.3	Turnover Status Checklist ED/ERM	Revision 9
1.4	Technical Support Center (TSC) Activation, Operation and Deactivation	Revision 20
1.5	Operations Support Center (OSC) Activation, Operation and Deactivation	Revision 15
1.6	Emergency Operations Facility (EOF) Activation, Operation and Deactivation	Revision 17
1.7	Emergency Response Organization (ERO) Teams	Revision 13

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX

1/2-EPP-IP **2 Series - Assessment**

2.1	Emergency Radiological Monitoring	Revision 11
2.2	Onsite Monitoring for Airborne Release	Revision 13
2.3	Offsite Monitoring for Airborne Release	Revision 14
2.4	Offsite Monitoring for Liquid Release	Revision 9
2.5	Emergency Environmental Monitoring	Revision 11
2.6	Environmental Assessment and Dose Projection Controlling Procedure	Revision 15
2.6.1	Dose Projection - Backup Methods	Revision 11
2.6.2	Dose Projection - ARERAS/MIDAS With FSAR Defaults	Revision 13
2.6.3	Dose Projection - ARERAS/MIDAS With Real-Time Inputs	Revision 12
2.6.4	Dose Projection - ARERAS/MIDAS With Manual Inputs	Revision 14
2.6.5	Alternate Meteorological Parameters	Revision 11
2.6.6	Dose Projections By Hand Calculation - Known Isotopic Release	Revision 7
2.6.7	Dose Assessment Based on Field Measurements	Revision 7
2.6.8	Dose Assessment Based on Environmental Measurements and Samples	Revision 6
2.6.9	Integrated Dose Assessment	Revision 6
2.6.10	Ground Contamination Assessment and Protective Action	Revision 7

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX

1/2-EPP-IP	**2 Series - Assessment**	
	2.6.11 Dose Projection - Miscellaneous Data	Revision 11
	2.6.12 Dose Projection -ARERAS/MIDAS With Severe Accident Assessment	Revision 10
2.7	Liquid Release Estimate	Revision 8
	2.7.1 Liquid Release Estimate - Computer Method	Revision 10
1/2-EPP-IP	**3 Series - Onsite Protective Actions**	
3.1	Evacuation	Revision 8
3.2	Site Assembly and Personnel Accountability	Revision 13
3.3	Emergency Contamination Control	Revision 8
3.4	Emergency Respiratory Protection	Revision 9
3.5	Traffic and Access Control	Revision 10
1/2-EPP-IP	**4 Series - Offsite Protective Actions**	
4.1	Offsite Protective Actions	Revision 17
1/2-EPP-IP	**5 Series - Aid to Personnel**	
5.1	Search and Rescue	Revision 8
5.2	RESERVED	
5.3	Emergency Exposure Criteria and Control	Revision 9
5.4	Emergency Personnel Monitoring	Revision 9

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX

1/2-EPP-IP	**6 Series - Re-entry/Recovery**	
6.1	Re-entry to Affected Areas - Criteria and Guidance	Revision 10
6.2	Termination of the Emergency and Recovery	Revision 11
1/2-EPP-IP	**7 Series - Maintaining Emergency Preparedness**	
7.1	Emergency Equipment Inventory and Maintenance Procedure	Revision 16
7.2	Administration of Emergency Preparedness Plan, Drills and Exercises	Revision 9
7.3	Emergency Preparedness Testing	Revision 1
1/2-EPP-IP	**8 Series - Fire Fighting**	
8.1	Fires in Radiologically Controlled Areas	Revision 11
1/2-EPP-IP	**9 Series - Nuclear Communications**	
9.1	Emergency Public Information Emergency Response Organization Controlling Procedure	Revision 12
9.2	Reserved	
9.3	Activation, Operation and Deactivation of the Emergency Public Information Organization Emergency Operations Facility (EOF)	Revision 5
9.4	Activation, Operation and Deactivation of the Joint Public Information Center (JPIC)	Revision 11
9.5	Activation, Operation and Deactivation of the Penn Power Customer Account Services Department	Revision 8
1/2-EPP-IP	**10 Series - Corporate Response**	
10.1	Emergency Response Organization Corporate Support	Revision 3

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX

1/2-EPP-IP	ANNEXES	
Annex A -	Westinghouse Emergency Response Plan	Revision 8
Annex B -	DELETED	
Annex C -	Major Injury Involving Radioactive Contamination For The Medical Center, Beaver	Revision 10
Annex D -	Procedure for Transferring Radiation Casualties to the Radiation Emergency Response Program (UPMC Presbyterian)	Revision 8
Annex E -	Reserved	

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-1.4

Technical Support Center Activation, Operation and Deactivation

Document Owner
Manager, Emergency Preparedness

Revision Number	20
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1
- 3.1 References 1
- 3.2 Commitments 1

4.0 RECORDS AND FORMS 2
- 4.1 Records 2
- 4.2 Forms 2

5.0 RESPONSIBILITIES 2
- 5.1 Technical Support Coordinator 2
- 5.2 Technical Support Center 2

6.0 PRECAUTIONS AND LIMITATIONS 3
- 6.1 Precautions 3
- 6.2 Limitations 3

7.0 PREREQUISITES 3

8.0 PROCEDURE 3
- 8.1 Activation 3
- 8.2 Operation 5
- 8.3 Deactivation 5
- 8.4 Final Conditions 6

ATTACHMENT A ERF EMERGENCY VENTILATION ISOLATION/ACTIVATION 7
ATTACHMENT B ERF EMERGENCY ENTRANCE 11
FIGURE 1 ERF EMERGENCY ENTRANCE LOCATION 15
FIGURE 2 ERF EMERGENCY ENTRANCE 17
ATTACHMENT C ACTIVATION OF IPC, ERFCS AND SPDS COMPUTERS 19
ATTACHMENT D GUIDANCE FOR ERF EVACUATION/INACCESSIBLE 21
FIGURE 3 DIRECTIONS TO ALT. EOF (JPIC) 25
ATTACHMENT E COMPUTER COORDINATOR ACTIVATION CHECKLIST 27
ATTACHMENT F ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM (ERDS) FROM THE TSC 29
ATTACHMENT G NRC/BVPS TECHNICAL INFORMATION FLOW 31

1.0 PURPOSE

1.1 This procedure provides guidance for the Technical Support Center (TSC) staff in the activation, operation and deactivation of the Technical Support Center.

2.0 SCOPE

2.1 None

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.

3.1.2 Beaver Valley Power Station Operating Manual.

3.1.3 Title 10 Code of Federal Regulations Part 50, Appendix E.

3.1.4 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

3.1.5 NRC Inspection Report 50-334 #81-27 (The concept of operations described in this EPP/IP were incorporated in response to finding.)

3.1.6 NUREG-1394 "Emergency Response Data System (ERDS) Implementation."

3.1.7 Condition Report

- 970716
- 00-2202
- 01-3198
- 01-6025
- 02-04166
- 01-1714-07
- 02-03660
- 03-02032-03
- 03-02034-06

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 All forms and paperwork generated as a result of staffing or activation of the TSC are QA records.

4.2 Forms

4.2.1 1/2-EPP-IP-1.4.F01, Unit 1 Trend Group Assignment Summary

4.2.2 1/2-EPP-IP-1.4.F02, Unit 2 Plant Status

4.2.3 1/2-EPP-IP-1.4.F03, Technical Support Coordinator TSC Activation Checklist

4.2.4 1/2-EPP-IP-1.4.F04, Communications and Records Coordinator Assignment Checklist

4.2.5 1/2-EPP-IP-1.4.F05, Radiological Controls Coordinator TSC Support Checklist

4.2.6 1/2-EPP-IP-1.4.F06, TSC Chemistry Activation Checklist

4.2.7 1/2-EPP-IP-1.4.F07, Assistant to the Emergency Director Activation and Task Checklist

5.0 RESPONSIBILITIES

5.1 Technical Support Coordinator

5.1.1 Is responsible for insuring the actions outlined in this procedure are completed. The Emergency Director is responsible for insuring Attachment 4 "Guidance for ERF Evacuation/Inaccessible" is implemented, if applicable. The TSC Computer Coordinator is responsible for ERDS activation per Attachment 9.

5.2 The Technical Support Center

5.2.1 Will provide plant management and technical support to plant operations personnel during emergency conditions.

5.2.2 Will relieve the reactor operators of peripheral duties and communications not directly related to reactor system manipulations.

5.2.3 Will prevent congestion in the Control Room.

5.2.4 Will perform EOF functions for the Alert Emergency class and for the Site Area Emergency class and General Emergency class until the EOF is functional.

5.2.5 Will provide radiological briefings for personnel leaving the ERF during a declared emergency.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

NOTE:	Operability of the TSC and EOF is checked as part of Operations Manual, Chapter 58. Emergency activation of the TSC and EOF will include operability checks in addition to those mentioned above.

6.1.1 To ensure that appropriate and timely attention is paid to the in-plant and offsite aspects of the emergency condition, the Shift Manager should delegate supervision of in-plant activities and assume the responsibilities of the Emergency Director as set forth in the BVPS Emergency Preparedness Plan.

6.1.2 The Shift Manager must ensure that TSC activities and personnel associated with TSC activation do not interfere with operational and assessment actions.

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

NOTE	NUREG-1394 requires activation of the ERDS computer within one (1) hour of the declaration of any Alert or higher classification.

7.1 This procedure should be initiated upon:

7.1.1 The direction of the Shift Manager, assuming the responsibilities of the Emergency Director.

7.1.2 Declaration of an emergency condition equal to or greater than an Alert.

8.0 PROCEDURE

8.1 Activation

NOTE:	The TSC should be activated as soon as possible, but, in all cases, within one (1) hour of an ALERT or higher classification. BVPS will continue to maintain an ERO and notification system, which will have the objective of meeting the 30/60 minute response time criteria specified in NUREG-0654. It is recognized that 100% staff augmentation, within 30 minutes, may not be achievable under all circumstances. The Onsite staff shall be augmented as soon as reasonably achievable.

8.1.1 Upon declaration of an emergency condition equal to or greater than an ALERT or as directed by the Emergency Director (SM), the ERF Emergency Access Station procedure should be implemented (Attachment B)

8.1.1.1 Security and the Technical Support Coordinator shall refer to Attachment A for instructions concerning the ERF ventilation.

8.1.1.2 If personnel are notified that the Site is inaccessible, refer to Attachment D "Guidance For ERF Inaccessible/Evacuation".

8.1.2 Upon notification of an Alert or higher emergency classification, the on-call Emergency Director shall do at least one of the following:

8.1.2.1 Proceed to the Control Room, or

8.1.2.2 Contact the SM/ED via cell phone, direct ringdown phone, or other available communications, and

8.1.2.3 Obtain the information to complete the turnover status checklist with the on-duty SM/Emergency Director.

8.1.3 The Technical Support Coordinator shall inform the Emergency Director of TSC staffing, per 1/2-EPP-IP-1.4.F03.

NOTE:	Obtain the BVERS printout from the FAX machine in the TSC Communications Area.

8.1.3.1 Using the Beaver Valley Emergency Response System (BVERS) printout, determine staffing from personnel currently at the TSC, or via arrival times listed on the BVERS printout.

8.1.4 The Technical Support Coordinator shall inform the Emergency Director of the status of the following:

8.1.4.1 Emergency equipment is energized or operable, per 1/2-EPP-IP-1.4.F03.

8.1.4.2 Security has:

- Secured the Emergency Response Facility.
- Isolated the ERF ventilation, per Attachment A.

8.1.4.3 Radiation Protection has:

- Established Frisking Station (if required).
- Established TLD Issue Area.

8.1.5 Verify that the Radiological Controls Coordinator has initiated habitability surveys, if necessary, per 1/2-EPP-IP-1.4.F05.

NOTE:	Depending on the type of emergency or circumstances, the TSC may be activated without complete staffing or all available communications equipment.

8.1.6 Upon information provided by the Technical Support Coordinator, the Emergency Director, or designee, shall declare the Technical Support Center activated and inform the Shift Manager of the final transfer of responsibilities. A formal activation announcement shall be made over the ERF page, the plant page party system, and the Operations/RadCon Headset Circuits. 1/2-EPP-IP-1.3, "Turnover Status Checklist" should be used during the turnover process to assure accurate information is received.

8.2 Operation

NOTE:	If actions are required in an emergency that are immediately needed to protect the public health and safety and departs from the license condition or Technical Specification, the action shall be approved, as a minimum by a licensed Senior Reactor Operator prior to taking the action, per 10 CFR 50.54 (x) and (y).

8.2.1 The Technical Support Center (TSC) is located in the Emergency Response Facility. Equipment and facilities required for implementation of the BVPS EPP are located in the TSC. This equipment includes; computer systems for both Units, dedicated telephones providing access to Control Room data and the means for conversations with Operations personnel and dedicated headset circuits.

8.2.2 Technical Support Center equipment operation shall be under the guidance set forth in the BVPS 1/2-EPP-IP-1.2, "Communications and Dissemination of Information", or other applicable procedures.

8.2.3 If access to the TSC becomes restricted due to radiological or other conditions, the Emergency Director and designated Emergency Coordinators should relocate per Attachment D. All other TSC personnel will receive reporting instructions as the situation warrants.

8.2.4 The functional responsibilities of the individual TSC personnel (Emergency Coordinators) are identified in Section 5 of the BVPS Emergency Preparedness Plan.

8.3 Deactivation

8.3.1 The Emergency Director may, upon satisfying the criteria of 1/2-EPP-IP-6.2, "Termination of the Emergency and Recovery", declare the TSC deactivated. The Technical Support Coordinator will be directed to coordinate the TSC deactivation. Preparations should be made between the Shift Manager and the Emergency Director to transfer remaining responsibilities to the On-Shift or Recovery organizations.

8.3.2 After shifting responsibilities, inform the Shift Manager that the TSC has been deactivated. A formal announcement should be made to any remaining TSC staff and announced over the Operations and RadCon circuits, as a minimum.

CAUTION: Establish contact with the NRC to obtain approval for ERDS link deactivation.

8.3.3 Upon deactivation, the Technical Support Coordinator should direct available personnel to de-energize and restore emergency equipment, forms and any other items utilized during the emergency response and conduct an inventory of the EPP cabinets (utilizing the forms with 1/2-EPP-IP-7.1).

8.4 Final Conditions

8.4.1 The use of this procedure shall be terminated after the following conditions have been met.

8.4.1.1 All available records generated during the emergency response are forwarded to the Communications and Record Coordinator.

8.4.1.2 All functional equipment/supplies have been restored to preactivation status.

8.4.1.3 The TSC staff has been relieved of all duties associated with the operation of the TSC.

8.4.1.4 Normal operations have been restored or a recovery organization established.

ATTACHMENT A
Page 1 of 3
ERF EMERGENCY VENTILATION ISOLATION/ACTIVATION

RESPONSIBILITY

Upon declaration of an ALERT or higher emergency classification, or at the direction of the Emergency Director, Security shall complete **SECTION A** and the Technical Support Coordinator , or designee, shall complete **SECTION B.**

NOTE:	If Security is unavailable or delayed, the Technical Support Coordinator, or designee, shall also complete SECTION A.

SECTION A, Ventilation Isolation by Security

NOTE:	The ERF Ventilation System is isolated by Security personnel immediately after they have established the ERF Emergency Access Station.

To manually isolate the ventilation system in the Emergency Response Facility, perform either step 1) or 2) of the following:

1) Flip the switch on Control Panel #5 (located in the EOF - Figure 1). The switch is located on the lower right hand side of the HVAC panel and should be placed from the normal position to the Emergency System Mode Switch position (observe instructions posted on the panel).

or

2) Follow the same procedure in the Mechanical Room (Figure 1). The switch and instructions are also located on the HVAC panel on the lower right hand side of the panel.

   The switch closes the automatic dampers and allows for recirculating the air in the ERF. Whether the switch is in the normal or emergency system mode switch position, the air is sent through a series of filters before circulating.

3) Record time Emergency Ventilation switch activated, and **inform Technical Support Coordinator**.

4) If the ventilation system is not isolated/activated, inform Technical Support Coordinator. The Technical Support Coordinator shall discuss the situation with the Engineering Coordinator, Emergency Director and Radiological Control Coordinator as to the need for surveys, sampling or ERF evacuation.

ATTACHMENT A
Page 2 of 3
ERF EMERGENCY VENTILATION ISOLATION/ACTIVATION

SECTION B, Starting Second Ventilation Fan by Tech Support Coord./Designee

The purpose of Section B is to start the second air handling Fan to ensure a positive pressure is maintained in the TSC and EOF during emergency use.

1) Locate the S-1 Air Handling Unit Panel in the Maintenance Area Mechanical Room Figure 1, (Across from the ERF Reproduction Room.)

2) Verify or place the S-1 air handling unit Fan No. 1 in "Manual".

3) Verify or place the S-1 air handling unit Fan No. 2 in "Manual".

NOTE:	If S-1 air handling unit Fan No. 1 is in service, go to step 5, if S-1 air handling unit Fan No. 2 is in service, go to step 4 and skip step 5).

4) Start the S-1 air handling unit fan No. 1 by pushing the start button.

5) Start the S-1 air handling unit fan No. 2 by pushing the start button.

6) Adjust the manual speed controller on the S-1 air handling unit Fan No. 1 to 8.75.

7) Adjust the manual speed controller on the S-1 air handling unit Fan No. 2 to 8.75.

8) Close doors to the TSC (including the Communications Area of the Ombudsman's Office) and EOF (i.e.: do not prop or block doors open).

9) Inform Emergency Director second ventilation fan has been started to maintain TSC and EOF positive pressure.

10) If the second fan does not start, the Technical Support Coordinator shall discuss the situation with the Engineering Coordinator, Emergency Director and Radiological Control Coordinator as to the need for surveys or sampling.

ATTACHMENT A
Page 3 of 3
ERF EMERGENCY VENTILATION ISOLATION/ACTIVATION

SECTION C, Returning Ventilation System to One Fan (Normal) Service

CAUTION: Ramp down Fan speed prior to stopping second Fan.

1) Stop the S-1 air handling unit Fan No. 2 by pushing the stop button.

2) Place the S-1 air handling Unit Fan No. 2 in auto.

3) Adjust the manual speed controller on the S-1 air handling unit Fan No. 1 to 7.0.

4) Adjust the manual speed controller on the S-1 air handling unit Fan No. 2 to 7.0.

5) Place the ERF Building Normal/Emergency Ventilation switch at panel CP-1 in the Maintenance Area Mechanical Room Figure 1 (across from the ERF Reproduction Room) to the Normal position.

6) Confirm labeled indicators have reversed damper positions.

7) Inform the Engineering Coordinator and the Emergency Director.

INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 4
ERF EMERGENCY ENTRANCE

A. PURPOSE

This attachment provides guidance for emergency support personnel for gaining access to the Emergency Response Facility (ERF).

B. REFERENCES

None

C. RESPONSIBILITIES

The RadCon Coordinator and Security Coordinator are responsible for insuring the actions outlined in this procedure are completed.

D. ACTION LEVELS/PRECAUTIONS

1.0 ACTION LEVELS

1.1 This procedure should be initiated upon any of the following:

1.1.1 At the direction of the Shift Manager assuming the responsibilities of the Emergency Director.

1.1.2 Declaration of an emergency condition equal to or greater than an emergency classification of ALERT.

2.0 PRECAUTIONS

2.1 The ERF Emergency Entrance will provide the following functions:

* Provide a controlled access location into the ERF.

* Provide a location for performing radiological monitoring of personnel entering the ERF (if appropriate).

ATTACHMENT B
Page 2 of 4
ERF EMERGENCY ENTRANCE

E. PROCEDURE

1.0 ACTIVATION

NOTE:	If emergency personnel arrive at the ERF Building prior to Security/Radiation Protection set-up, they shall begin activation of their area. Upon Security/Radiation Protection set-up, announcements should be made on the ERF Page for personnel to obtain dosimetry. Radiation Protection may cross-reference sign-in logs to assure all personnel are signed in and possess dosimetry.

1.1 Security will secure all entrances to the ERF, except the Radiation Protection Check Area entrance at the ERF garage (Figure 1).

1.2 Radiation Protection will establish a Dosimetry Issue Station down the hall from the Radiation Protection Check Area entrance. All personnel entering the ERF Building will be required to wear a TLD (Figure 2).

1.2.1 Dosimetry should not be issued to individuals who have worn their assigned BVPS TLD when entering the ERF. The Security/TLD issue log should be marked accordingly.

1.2.2 A RadCon Coordinator Assistant should make the following announcement on the ERF page system (PAX 7000).

"All emergency workers who have not processed in through Security and Radiation Protection should do so as soon as practical to ensure complete staff accountability and radiation dosimetry issue."

REPEAT THIS ANNOUNCEMENT SEVERAL TIMES DURING THE INFLUX OF THE ERO SUPPORT STAFF.

1.3 Radiation Protection will also establish a radiological monitoring station, if needed, in the Radiation Protection Check Area with appropriate radiological boundaries (Attachment B, Figure 2).

1.4 A RadCon Coordinator or Assistant shall make the following announcement:

"All ERF personnel leaving the ERF must receive a radiological briefing from the TSC RadCon Coordinator in the TSC prior to exiting the ERF".

1.5 After the influx of TSC/EOF support staff, a RadCon Coordinator Assistant should make an accounting of those who normally have assigned dosimetry and who received ERF-EPP TLD's. The normal dosimetry should be pulled from the normal storage locations for return to the ERF Building as soon as practical.

ATTACHMENT B
Page 3 of 4
ERF EMERGENCY ENTRANCE

2.0 OPERATION

2.1 Radiation Protection will determine the necessity of a self-frisk based on Radiation Protection/Operations evaluation of the potential for contamination due to a radiological release.

2.2 All personnel entering the Radiation Protection Check area will remain within the radiological boundaries until monitored, if necessary.

2.3 If contamination is detected, Radiation Protection should be notified. They will evaluate the extent of the contamination, and direct decontamination in the Decontamination Room, if necessary.

NOTE:	The Decontamination Room showers drain to a holding tank buried outside the ERF. Tank level indicator panels are located in the front entrance to the ERF, and the Service Dock Area by the roll-up door.

2.4 If no contamination is detected, personnel may exit the Radiation Protection Check Area at the designated point, by using the card reader on the wall beside the door (BVPS ID required) or contacting one of the phone numbers listed on the wall, and continue to the Sign-in Sheets.

2.5 Personnel who do not have an ID card to access the card reader must call one of the phone numbers listed on the wall to gain access.

2.6 Personnel shall obtain dosimetry from Radiation Protection, or notify Radiation Protection their assigned BVPS TLD is being worn, and then continue to their appropriate emergency response positions.

3.0 DEACTIVATION

3.1 Upon decision by the Emergency Director/Emergency Recovery Manager to terminate the use of the ERF Emergency Entrance, the RadCon Coordinator and Security Coordinator will direct the deactivation process.

3.2 Upon deactivation and prior to the return of normal building access, the RadCon Coordinator will assure that all radiological boundaries and equipment are properly removed, and surveys are conducted to confirm that the Radiation Protection Check Area (and Decontamination Room, if necessary) are below 5000 dpm/100 cm^2. Areas that cannot be readily decontaminated to acceptable levels shall be isolated and access controlled until decontamination efforts are satisfactorily completed.

3.3 Upon deactivation, the Security Coordinator will assure the re-establishment of normal building access.

ATTACHMENT B
Page 4 of 4
ERF EMERGENCY ENTRANCE

F. FINAL CONDITIONS

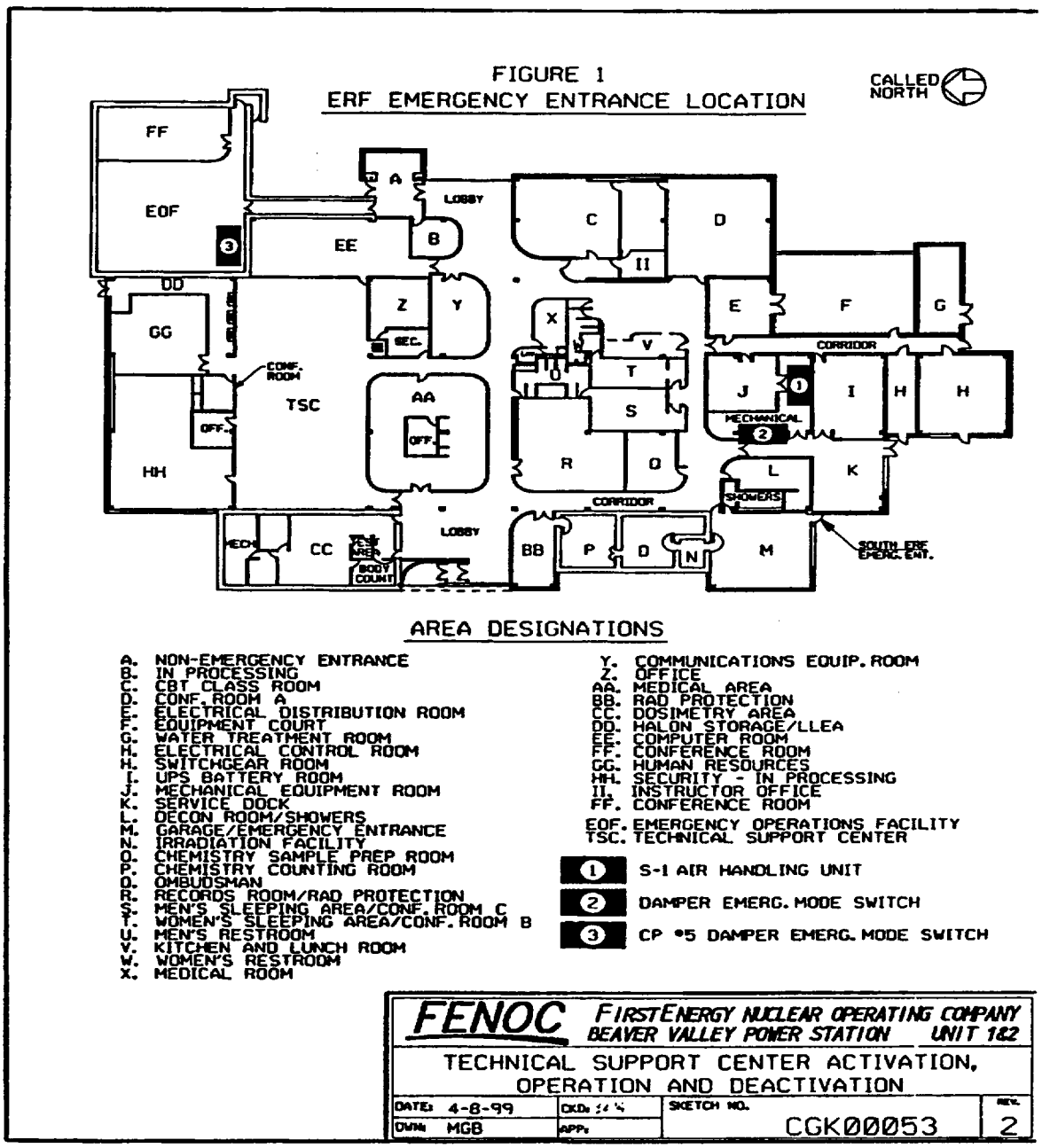
1.0 The use of this attachment shall be terminated after the following conditions have been met:

1.1 All records generated during the emergency response are forwarded to the proper personnel for review and then forwarded to Emergency Preparedness.

1.2 All functional equipment/supplies have been restored to pre-activation status.

1.3 All contaminated waste has been properly packaged and transported to Radiological Waste Disposal.

FIGURE 1
ERF EMERGENCY ENTRANCE LOCATION



AREA DESIGNATIONS

A. NON-EMERGENCY ENTRANCE
B. IN PROCESSING
C. CBT CLASS ROOM
D. CONF. ROOM A
E. ELECTRICAL DISTRIBUTION ROOM
F. EQUIPMENT COURT
G. WATER TREATMENT ROOM
H. ELECTRICAL CONTROL ROOM
H. SWITCHGEAR ROOM
I. UPS BATTERY ROOM
J. MECHANICAL EQUIPMENT ROOM
K. SERVICE DOCK
L. DECON ROOM/SHOWERS
M. GARAGE/EMERGENCY ENTRANCE
N. IRRADIATION FACILITY
O. CHEMISTRY SAMPLE PREP ROOM
P. CHEMISTRY COUNTING ROOM
Q. OMBUDSMAN
R. RECORDS ROOM/RAD PROTECTION
S. MEN'S SLEEPING AREA/CONF. ROOM C
T. WOMEN'S SLEEPING AREA/CONF. ROOM B
U. MEN'S RESTROOM
V. KITCHEN AND LUNCH ROOM
W. WOMEN'S RESTROOM
X. MEDICAL ROOM
Y. COMMUNICATIONS EQUIP. ROOM
Z. OFFICE
AA. MEDICAL AREA
BB. RAD PROTECTION
CC. DOSIMETRY AREA
DD. HALON STORAGE/LLEA
EE. COMPUTER ROOM
FF. CONFERENCE ROOM
GG. HUMAN RESOURCES
HH. SECURITY - IN PROCESSING
II. INSTRUCTOR OFFICE
FF. CONFERENCE ROOM

EOF. EMERGENCY OPERATIONS FACILITY
TSC. TECHNICAL SUPPORT CENTER

1. S-1 AIR HANDLING UNIT
2. DAMPER EMERG. MODE SWITCH
3. CP #5 DAMPER EMERG. MODE SWITCH

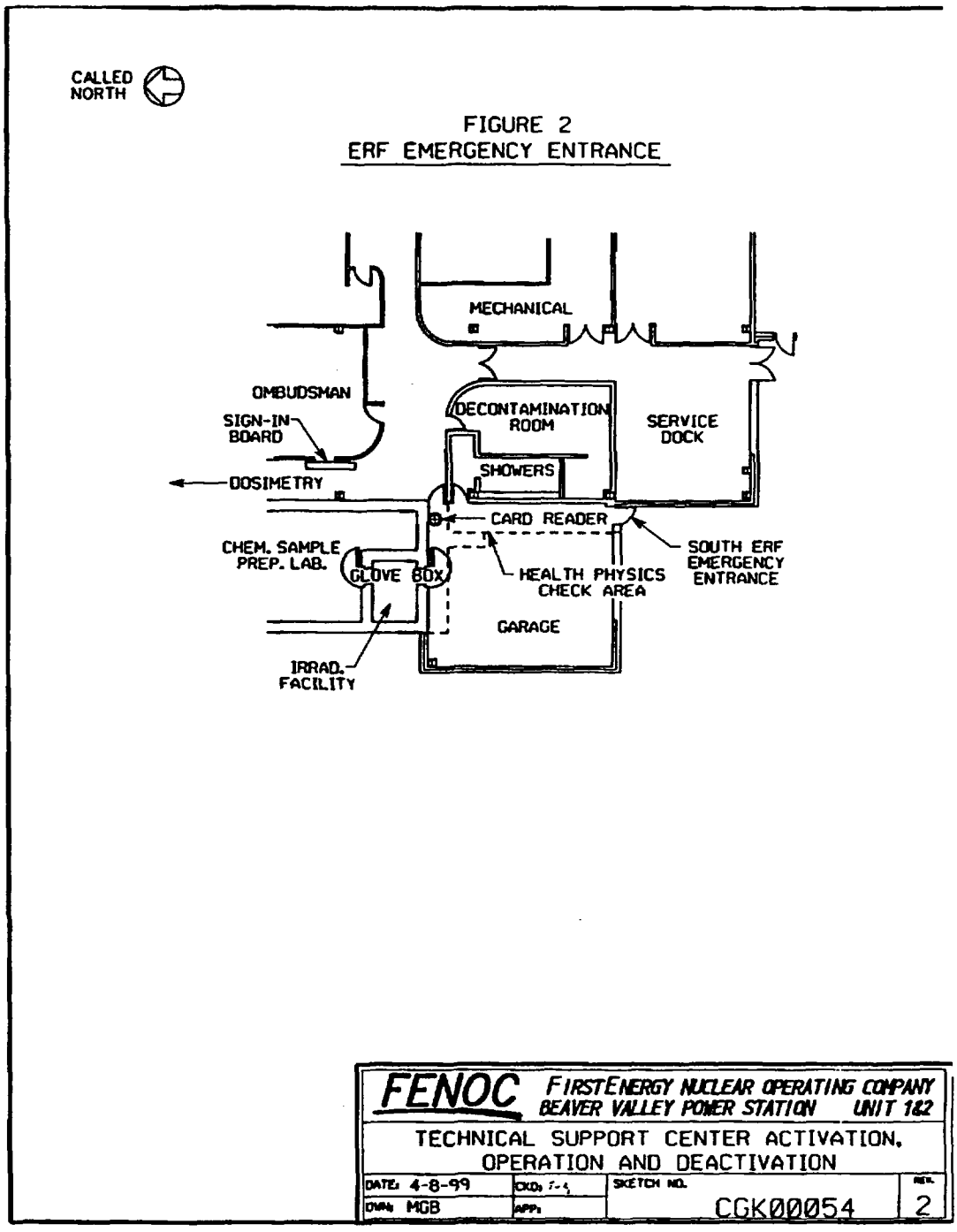
FENOC	FIRSTENERGY NUCLEAR OPERATING COMPANY BEAVER VALLEY POWER STATION UNIT 1&2		
TECHNICAL SUPPORT CENTER ACTIVATION, OPERATION AND DEACTIVATION			
DATE: 4-8-99	CKD: [illegible]	SKETCH NO. CGK00053	REV. 2
DWN: MGB	APP:		

14-JAN-2003 08:54 k:\u3\cgk00053.f01

PREPARED BY THE BPS CHECKED SYSTEM

INTENTIONALLY BLANK

FIGURE 2
ERF EMERGENCY ENTRANCE



INTENTIONALLY BLANK

ATTACHMENT C
Page 1 of 1
ACTIVATION OF IPC, ERFCS AND SPDS COMPUTERS

1. Obtain keys to computer consoles from TSC key box and supplies from TSC cabinet.
2. Convert TSC and EOF consoles to engineer mode.
3. Energize TSC trend pen recorders.
4. Perform system check on IPC and SPDS or ERFCS according to OM Chapter 58 and verify activation on HDSR.
5. Clear computer's OJ, log, and high speed line printer.
6. Identify key groups at direction of computer coordinator.
7. Activate trend pen recorders utilizing representative points from key groups. Identify point names and ranges with grease pencil on recorder faces. (U2 Only)
8. Initiate one standard trend log for each key group and activate and initiate collection.
9. Assign key groups to their respective logs.
10. Display RCS P&ID on IPC/ERFCS utility screen.
11. Display PSSD iconic on SPDS monitor.
12. Monitor group display for point alarms or abnormal trends and values, and alert key personnel.
13. Modify displays, trend pens, standard trend logs, and spare group assignments to support needs of TSC and EOF personnel.
14. Periodically provide logs and appropriate summaries.
15. Upon termination return system to normal operating status, and return console keys to the TSC key cabinet.

INTENTIONALLY BLANK

ATTACHMENT D
Page 1 of 3
GUIDANCE FOR ERF EVACUATION/INACCESSIBLE

NOTE: Although the ERF Building is a radiologically hardened facility, other hazards (fire, toxic gas, flooding, loss of power, loss of internal ventilation control, etc.) may cause evacuation of the ERF, or result in ERF inaccessibility to emergency response personnel.

1.0 The following is guidance for Emergency Response Organization personnel in the event of ERF evacuation or inaccessibility.

TABLE 1

TSC POSITION		IF EVACUATION RELOCATE TO	IF INACCESSIBLE REPORT TO
Emergency Director	*	Control Room	Alternate EOF (JPIC)
TSC Operations Coordinator	*	Control Room	Alternate EOF (JPIC)
RadCon Coordinator	*	Control Room	Alternate EOF (JPIC)
Maintenance Coordinator	*	Control Room	Alternate EOF (JPIC)
Comm & Records Coord.	*	Control Room	Alternate EOF (JPIC)
Chemistry Coordinator		Unit 1 Cold Lab	Alternate EOF (JPIC)
Engineering Coordinator		SEB	Alternate EOF (JPIC)
Technical Support Coordinator		SEB	Alternate EOF (JPIC)
TSC Engineers		SEB	Alternate EOF (JPIC)
Document Support		SEB	Alternate EOF (JPIC)
Security Representative	+	Alternate EOF (JPIC)	Alternate EOF (JPIC)
Computer Coordinator		Alternate EOF (JPIC)	Alternate EOF (JPIC)
Operations Communicator		Alternate EOF (JPIC)	Alternate EOF (JPIC)
Telecommunications		SEB	Alternate EOF (JPIC)
EA&DP Coordinator		Alternate EOF (JPIC)	Alternate EOF (JPIC)

\+ The Security Coordinator will remain in CAS while ERF Security personnel relocate per EPP/IP 1.6.

* These personnel should relocate to the unaffected Unit's SM Office.

ATTACHMENT D
Page 2 of 3
GUIDANCE FOR ERF EVACUATION/INACCESSIBLE

2.0 ERF Evacuation

NOTE:	Upon determination that ERF personnel must be evacuated during an emergency condition, the Emergency Director, in conjunction with the RadCon Coordinator and the TSC Security Coordinator, shall assign appropriate personnel to conduct a search of the building to assure that all personnel are evacuated. EOF personnel shall report to the Alternate EOF per 1/2-EPP-IP-1.6.

2.1 Personnel listed in Table 1 shall turnover their responsibilities to Control Room or OSC personnel and report to their designated locations.

2.2 All other ERF personnel shall relocate to the SEB first floor or relocate to another area (alternate onsite work location or assembly area).

2.2.1 Upon relocation, the Engineering Coordinator, Chemistry Coordinator and EA&DP Coordinator shall call the Emergency Director in the Control Room and relay a phone number where they can be contacted.

2.2.2 Personnel may also be dismissed from the Site, as directed by the appropriate Coordinator.

2.3 The evacuation location may be changed per the Emergency Director, or appropriate Coordinator, dependent on the cause of the evacuation or the loss of specific equipment.

3.0 ERF Inaccessible

NOTE:	This would most likely be a non-daylight work hour event, since during daylight work hours, personnel onsite would be able to access onsite Emergency Facilities.

3.1 Upon notification of an emergency classification with the Site inaccessible, only those TSC positions listed in Table 1 should report to the Alternate EOF and determine the requirements for Site access and the necessity for additional personnel response (assistants, communicators, engineers, etc.).

ATTACHMENT D
Page 3 of 3
GUIDANCE FOR ERF EVACUATION/INACCESSIBLE

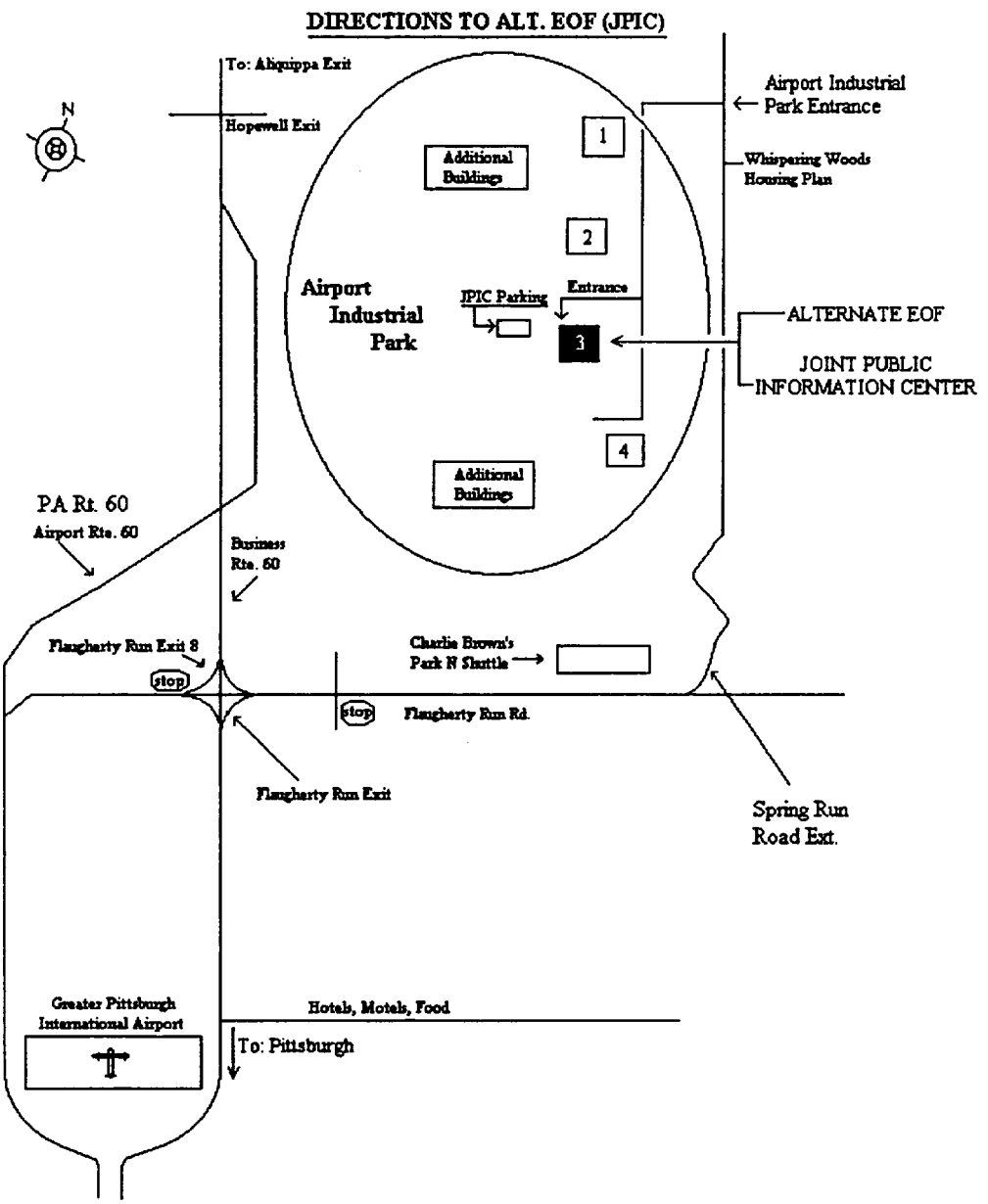
4.0 Site Accessible

4.1 Upon the Site becoming accessible, the Emergency Director/Emergency Recovery Manager shall call the Control Room SM/ED for a turnover, if the emergency has not been terminated.

4.2 Upon completion of the turnover, the TSC Emergency Director/Emergency Recovery Manager shall report to the TSC/EOF, conditions permitting (radiological, toxic gas, etc.). He will then call the Control Room SM for an update, receive a staffing and equipment operability update, and brief the TSC and EOF over the ERF Building page system.

INTENTIONALLY BLANK

FIGURE 3
DIRECTIONS TO ALT. EOF (JPIC)



INTENTIONALLY BLANK

ATTACHMENT E
Page 1 of 1
COMPUTER COORDINATOR ACTIVATION CHECKLIST

NOTE:	This checklist is provided as an aid for the Computer Coordinator in the performance of his/her duties. It is not intended to replace any portion of this IP.

NOTE	NUREG-1394 requires activation of the ERDS computer within one (1) hour of the declaration of any Alert or higher classification.

ERDS Activation:

1. Activate ERDS per Attachment F.

Functional Check of IPC Hardware

1. Turn on monitors in TSC and EOF. Check for current date and time in upper right-hand corner.
2. Check that time is updating.
3. Check High Speed Printer (#4) has adequate paper.

System Activation

1. Get Key from break/glass box in TSC.
2. Open TSC emergency cabinet (Key #1) get the following supplies:
   a. Speed Memos & status charts
   b. Arm bands/Badges
   c. Pens, paper, etc. (misc. supplies)
3. At IPC Console (some duties can be shared by EOF Operator)
   a. Call up a point summary
   b. Select points & ranges (operations assistance)
   c. Activate standard trend logs
4. System Surveillance
   a. Alarms-acknowledge & generate speed memo's or inform Operation Coordinator.
   b. Displays-view for changes in critical parameters (SPDS also)
   c. Analog trends-watch for and rate changes

INTENTIONALLY BLANK

ATTACHMENT F
Page 1 of 2
ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM (ERDS) FROM THE TSC

NOTE: If the ERDS Computer cannot be activated for any reason, contact the BVPS Computer Maintenance Section for corrective action. Inform the Emergency Director the ERDS data link is out of service and backup phone communications with the NRC should be established.

1. Obtain keys to TSC cabinet #1 (if not already open), enter cabinet and obtain "username" and "password" from envelope on inside of cabinet door.

NOTE: Before attempting to power on the equipment, verify that the unit is powered off -- not just in the screen saver mode. The NCD19C X terminal has a built-in screen saver facility. This screen saver facility will dim the display screen monitor if the keyboard or mouse has not been used for an extended period of time. If the X terminal is in screen saver mode, moving the mouse or pressing any key on the keyboard will cause the display monitor to be refreshed. If the display monitor remains blank after moving the mouse, then the NCD19C X terminal is either broken or powered off.

2. If not already powered on, turn on the NCD19C X terminal using the power switch located on the rear of the NCD19C base unit.

NOTE: If the DECwindows logon message does not appear after approximately 30 seconds, then the unit is broken; has been disconnected from the network; or the MicroVAX 3100 computer is not operational. Contact the BVPS Computer Maintenance Section to take corrective action.

3. If not already powered on, turn on the RP LaserJet IIIP laser printer using the power switch located on the right side of the unit.

   After turning on power to the RP LaserJet IIIP, the printer will perform a series of power-on self tests. If the power-on self tests successfully completes, all indicator lights on the operator panel will be off except the ONLINE indicator, and the status display will read "00 READY LETTER". If any other indication is present on the printer, then the power-on self tests were not successfully completed and you will be unable to make hard copies of the screen displays. In either case, proceed with the activation procedure.

4. Select the "Username" window, enter information from card in TSC Cabinet #1 and press <RETURN>.

ATTACHMENT F
Page 2 of 2
ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM (ERDS) FROM THE TSC

5. Select the "Password" window, enter the current password from the card in TSC Cabinet #1 and press <RETURN>.

   CORRECT USER NAME/PASSWORD ENTERED: If the correct Username and password were entered, then the logon message will automatically be removed from the display screen. The R*TIME/X MMI application will be started and the initialized MMI display window with the "TOP MENU", "SCREEN UP", "SCREEN DOWN", and "PREV SCREEN" function buttons will be displayed on the NCD19C X terminal (approximately 1 minute).

6. Move the pointer to the dash in the upper left corner of the control menu box of the MMI display menu. Using the mouse, click once and select "lower" from the pop-up menu.

NOTE: Do Not close "Session Manager" icon. This will terminate the ERDS link. Minimize the icon, if necessary, and put in lower portion of screen.

7. Position pointer to the lower left hand corner, double click on the "BVERDS" icon.

8. Position pointer to "Applications" from the pop-up Session Manager menu. Click on "Applications" and select "DECterm" from the pop-up menu.

9. Type in "ERD", leave a space and "1" or "2" depending on the affected unit. Hit return and follow screen prompted instructions to activate link.

10. While link is activating "Link Status" will change from "Offline" to "Attempting Connection" to "Modem Connected" to "Online". Additionally, Link Status will change from "Offline" to "Connect Modem" to "Connect ERDS" to "Sending Data" or "Waiting".

11. Position pointer to the dash in the upper left corner of the control menu box of the DECterm window. Using the mouse, click once and select "Minimize" from the pop-up menu.

NOTE: If both ERDS links need to be activated due to a site emergency declaration or Alert or higher, repeat steps 8 thru 11 for the opposite unit.

ATTACHMENT G
Page 1 of 3
NRC/BVPS TECHNICAL INFORMATION FLOW

A5.715DV

A. PURPOSE

This attachment will define NRC/BVPS information flow responsibilities and provide technical information sheets to be utilized during emergency situations.

NOTE:	This Attachment is to be utilized in the event that the Emergency Response Data System (ERDS) is not operational.

B. RESPONSIBILITIES

The overall responsibility for this attachment rests with the Emergency Director (Shift Manager until the TSC is activated). Individual responsibilities are determined by the location of the NRC dedicated line and the type of information required. These individual responsibilities are listed below:

* Control Room-NRC/ENS phone - Personnel will be used from the unaffected Unit's supervisory personnel or an assigned designee, until properly relieved by the appropriate TSC Personnel.

* TSC/EOF-NRC/ENS phone - Designated personnel from the Operations Communicators emergency response group. This will terminate Control Room personnel's responsibility.

* TSC/EOF-NRC/HPN line - Designated personnel from RadCon and EA & DP.

NOTE:	Unless warranted by the initiating condition or requested by the NRC, the NRC/HPN line will not be manned at the Unusual Event. If required, personnel will be assigned by the RP Operations Center Coordinator.

C. ACTION LEVELS/PRECAUTIONS

NOTE:	The Shift Manager (Emergency Director) will determine if these data sheets are applicable at the Unusual Event Classification. The data sheets shall be completed for all Alert and above declarations if the ERDS is not operational.

1.0 Preliminary information from the licensee (before establishment of the NRC/HPN) is provided via the NRC/ENS and includes both reactor safety and radiation protection data.

ATTACHMENT G
Page 2 of 3
A5.715DV
NRC/BVPS TECHNICAL INFORMATION FLOW

2.0 Once the NRC/HPN is established, the HPN is the primary means of communicating radiological data, and the ENS is the primary means of communicating reactor safety related information to NRC.

D. PROCEDURE

1.0 Technical Data Sheets

1.1 Information sheets concerning plant parameters and Control Room status will be utilized by those personnel manning the NRC/ENS lines.

1.1.1 For Unit #1 actual events, 1/2-EPP-IP-1.4.F01 may be completed using the IPC Trend Functions and request support from Computer Coordinator.

1.1.1.1 Type GRPPRN to activate group print function.

1.1.1.2 Enter Group Name NRC Infor 1 (Group 1) or NRCINFO2 (Group 2) followed by a <cr>.

1.1.1.3 Select appropriate function key (F1 through F4) to select printer location.

1.1.1.4 Obtain printout from appropriate printer to relay to NRC.

1.1.2 For Unit #2, 1/2-EPP-IP-1.4.F02 may be completed using the ERFCS group pushbuttons 71 and 72 (GPO71, GPO72), request support from Computer Coordinator. These pushbuttons mimic the attachments for operational data. Data may be acquired commencing with the Group 71 pushbutton and using the page down feature prior to using the Group 72 pushbutton and its associated page down feature.

NOTE:	1/2-EPP-IP-1.4.F01 and 1/2-EPP-IP-1.4.F02 (as applicable) should be completed once per hour (1/Hr.) unless requested differently by the NRC.

1.2 Information sheets concerning dose projections, in-plant surveys, offsite surveys and protective action recommendations (1/2-EPP-IP-1.4.F01 and ½-EPP-IP-1.4.F02) will be utilized by those personnel manning the NRC/HPN line.

ATTACHMENT G
Page 3 of 3
A5.715DV
NRC/BVPS TECHNICAL INFORMATION FLOW

2.0 Maintaining the ENS and HPN

2.1 The ENS and HPN lines are tested monthly with any deficiencies noted and reported to the appropriate parties.

2.2 The ENS system is exercised each morning by the Headquarters Operation Officer's placement of a call to BVPS to collect status information.

E. FINAL CONDITIONS

Use of this attachment is to be terminated at the direction of the NRC Operations Center.

INTENTIONALLY BLANK

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-1.5

Operations Support Center (OSC) Activation, Operation and Deactivation

Document Owner
Manager, Emergency Preparedness

Revision Number	15
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 1

4.1 Records 1
4.2 Forms 1

5.0 RESPONSIBILITIES 2

5.1 Operations Support Center Coordinator 2

6.0 PRECAUTIONS AND LIMITATIONS 2

6.1 Precautions 2
6.2 Limitations 2

7.0 PREREQUISITES 3

8.0 PROCEDURE 3

8.1 Activation 3
8.2 Operation 4
8.3 Deactivation 4

ATTACHMENT A OSC FLOOR PLAN 7
ATTACHMENT B ALTERNATE OSC FLOOR PLAN - (692' UNIT 1) 9
ATTACHMENT C EMERGENCY RESPONSE FACILITIES AND ASSEMBLY AREA RADIOLOGICAL HABITABILITY CRITERIA 11

1.0 PURPOSE

1.1 This procedure provides guidance for the Operations Support Center staff in the activation, operation and deactivation of the Operations Support Center.

2.0 SCOPE

2.1 The OSC provides a central location for designated Maintenance, Radiation Protection and Operations personnel to assemble for coordinating related activities and technicians within the site.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.

3.1.2 Beaver Valley Power Station Operating Manual.

3.1.3 Title 10 Code of Federal Regulations Part 50, Appendix E.

3.1.4 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

3.1.5 Condition Reports

- 00-2202
- 01-3762
- 01-3198
- 03-02034-06

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 All Forms and paperwork generated, as a result of staffing or activation of the OSC are QA records.

4.2 Forms

4.2.1 1/2-EPP-IP-1.5.F01, OSC Activation Checklist

4.2.2 1/2-EPP-IP-1.5.F02, OSC Health Physics Activation Checklist

4.2.3 1/2-EPP-IP-1.5.F03, OSC Evacuation Checklist

4.2.4 1/2-EPP-IP-1.5.F04, OSC Deactivation Checklist

4.2.5 1/2-EPP-IP-1.5.F05, Checklist for Operations Support Center Updates

4.2.6 1/2-EPP-IP-1.5.F06, OSC/EPP Assignment Sheet

4.2.7 1/2-EPP-IP-1.5.F07, Task/Job Description Sheet

4.2.8 1/2-EPP-IP-1.5.F08, OSC/EPP Personnel Assignment Log

5.0 RESPONSIBILITIES

5.1 Operations Support Center Coordinator

5.1.1 Is responsible for activation, operation and deactivation process for the Operations Support Center as outlined in this procedure.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 The Technical Support Center (TSC) (primarily the Emergency Director) shall establish priorities for repair tasks assigned to OSC Teams. The priority assigned a given task should be clearly communicated to the OSC by the Maintenance Coordinator and RadCon Coordinator in the TSC. Should the TSC fail to provide guidance, it is incumbent upon the OSC to request that priorities be assigned.

6.1.1.1 Priorities should be clearly identified on the TSC job priority status board.

NOTE:	Tasks should not be considered without checking with Radiological Controls regarding conditions in the area. Federal guidelines for emergency exposure can not be exceeded. See 1/2-EPP-IP-5.3 for details on limits.

6.2 Limitations

6.2.1 Location – the BV 1/2 Operations Support Center (OSC) is located in the Outage Central Complex above the BV 1 and 2 Control Rooms. Monitoring equipment, ARERAS capable computer, HIS-20 computer and other material to support Radiation Protection activities are available in the OSC and pre-staged areas.

6.2.2 The BV 1/2 Alternate Operations Support Center (OSC) is in the Process Instrumentation and Rod Position Instrumentation Area located below the BV-1 Control Room.

6.2.3 The Operations Support Center is equipped with a variety of communication systems including PAX phones for inside and outside the plant communications, Fax, Page Party (both units), radio frequencies, Emergency Telephone System (ETS) phone to contact the NRC/HPN, and the Operations and RadCon Headset and Ringdown circuits.

6.2.4 The Alternate Operations Support Center is equipped with a variety of communication systems including: Commercial phone lines, PAX lines, FAX, Page Party and Station Alarm Systems, Radio frequencies and the Operations and RadCon Headset and Ringdown Circuits.

6.2.5 An Operations Support Center Coordinator has been assigned to direct this center. This individual will report to the Emergency Director via the Maintenance Coordinator. Included in the OSC Coordinator's functions are: Direction of activities of the in-plant supplemental emergency team, assignment of personnel from the onsite pool of available persons in response to requests from the Emergency Director and the maintaining of accountability of personnel assigned to the OSC.

6.2.6 The OSC-HP Coordinator in the OSC coordinates Health Physics activities with the OSC Coordinator on support activities and reports to the Radiological Controls Coordinator on Radiological Controls issues in the TSC.

7.0 PREREQUISITES

7.1 An emergency condition corresponding to an ALERT or higher emergency classification has been declared at Beaver Valley Power Station as provided in the BVPS Emergency Preparedness Plan.

7.2 The Emergency Director has deemed it necessary to activate or staff this facility.

8.0 PROCEDURE

8.1 Activation

8.1.1 Upon occurrence of an emergency condition which has been classified as an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY or upon direction of the Emergency Director, the OSC shall begin activation. (See 1/2-EPP-IP-1.5.F01.)

8.1.2 The Operations Support Center (OSC) shall be activated upon notification by the Control room to Maintenance and Radiation Protection personnel that an emergency exists. Additional personnel shall be activated according to normal emergency response call-out procedures.

8.1.2.1 Personnel needed immediately SHOULD be contacted by OSC personnel.

8.1.2.2 Personnel needed for longer term relief (12-hour shift), SHOULD be coordinated with the Support Services Manager in the Emergency Operations Facility (EOF), if activated.

8.1.2.3 The OSC and OSC-HP Coordinators shall ensure all facility personnel have been verified to meet Fitness For Duty requirements.

8.2 Operation

NOTE:	If the Site is inaccessible, the OSC and OSC-Health Physics (OSC-HP) Coordinators shall report to the Alternate EOF. Other OSC support personnel should be notified later upon determination of Site access conditions. Should the OSC become uninhabitable, or access to the OSC restricted, OSC personnel will relocate to the Alternate OSC, Unit 1 Process Rack area.

8.2.1 The OSC Coordinator, as requested by the Emergency Director, shall direct the activities of the emergency repair teams that have been formed to augment the Shift Emergency Squad.

8.2.2 Under the direction of the OSC-HP Coordinator, the OSC provides onsite radiation control personnel for in-plant, onsite and offsite monitoring teams. This function will be consistent with maintaining appropriate radiation controls in-plant.

8.2.3 Accountability of personnel in the OSC and those deployed in emergency teams will be the responsibility of the OSC Coordinator. (Reference 1/2-EPP-IP-3.2)

8.2.4 Accountability for personnel assigned to onsite monitoring teams will be the responsibility of the OSC-HP Coordinator. (Reference 1/2-EPP-IP-3.2)

8.2.5 Periodic briefings will be conducted to keep OSC personnel apprised of plant status including Radiation Protection activities. The briefing will be conducted using form 1/2-EPP-IP-1.5.F05, Checklist for Operations Support Center Updates as guidance.

8.2.6 The OSC will coordinate Assembly Area and Emergency Response Facilities radiological habitability. Criteria for habitability are located in Attachment C.

8.2.7 The OSC-HP Coordinator will inform and coordinate with the TSC RadCon Coordinator as to appropriate protective actions for these areas.

8.2.8 Any records generated or conducted communications shall be consistent with the BVPS Implementing Procedures, and Radiological Controls Manual procedures.

8.3 Deactivation - See Form 1/2-EPP-IP-1.5.F04

8.3.1 The Emergency Director, via the Maintenance Coordinator or Radiological Controls Coordinator, will inform the OSC when deactivation shall occur. This decision will be based on plant conditions, monitor readings or accident termination. The OSC and OSC HP Coordinators will direct these activities, per 1/2-EPP-IP-1.5.F04.

8.3.2 All records generated during operation shall be forwarded to Emergency Preparedness upon deactivation.

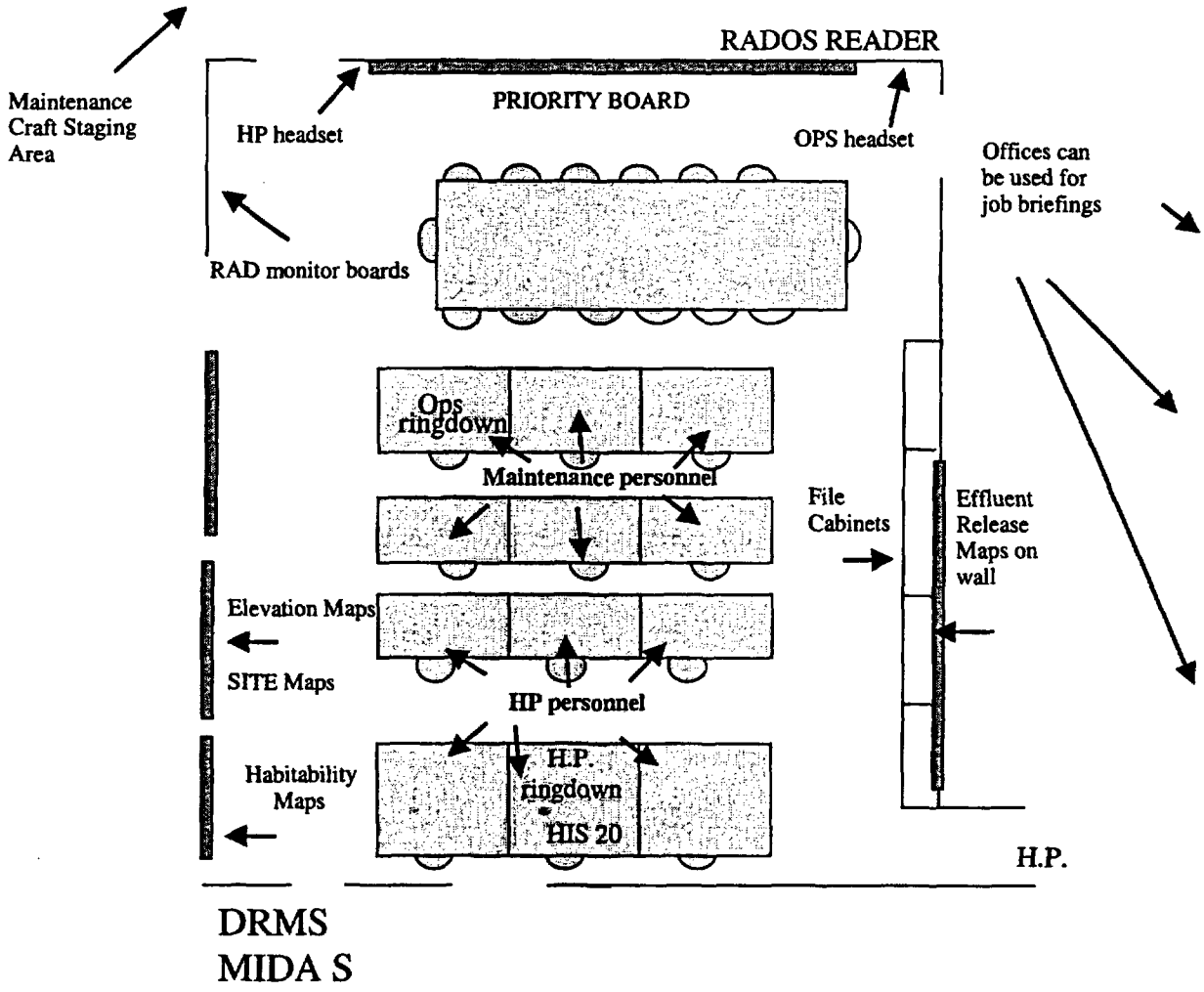
8.3.3 Upon deactivation, de-energize and restore emergency equipment and supplies to preactivation conditions.

8.3.4 Conduct an inventory of all EPP equipment using the appropriate forms from 1/2-EPP-IP-7.1.

8.3.5 Any remaining responsibilities will be transferred to the TSC or Forced Outage Team.

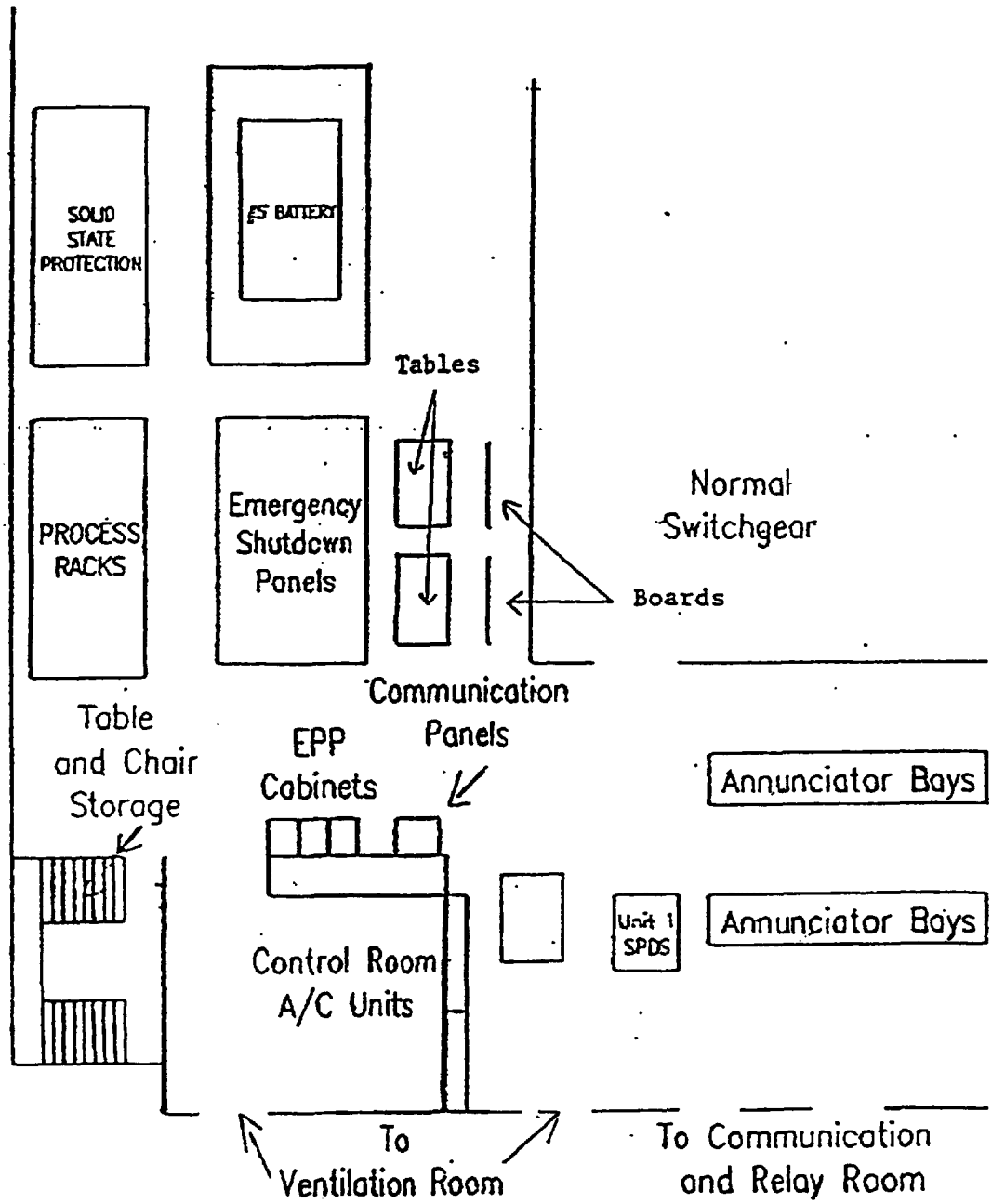
INTENTIONALLY BLANK

ATTACHMENT A
Page 1 of 1
OSC FLOOR PLAN



INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 1
ALTERNATE OSC FLOOR PLAN - (692' UNIT 1)



INTENTIONALLY BLANK

ATTACHMENT C
Page 1 of 1
EMERGENCY RESPONSE FACILITIES AND ASSEMBLY AREA RADIOLOGICAL HABITABILITY CRITERIA

1.0 Emergency Response Facilities Habitability -- Other Than CR (OSC, TSC, EOF)

NOTE:	Declared pregnant workers and minor should be evacuated under the habitability criteria established for assembly areas.

IF the results of surveys at emergency response facilities other than the Control Room indicate levels of:

- >15.0 mrem/hr DDE or a projected dose in 30 days in excess of 5 rem DDE, and/or,
- Gross airborne activity (less noble gases) in excess of 5 DAC, or projected exposure in a week in excess of 40 DAC-hours for isotopic mix less noble gases, and/or,
- Gross airborne activity (less noble gases) that are projected to cause thyroid exposures in excess of 30 rem within 30 days.

THEN evacuate personnel in excess of minimum staffing requirements. Implement stay time controls (based on emergency exposure criteria as necessary in accordance with EPP/IP 5.3) for personnel remaining at the facility. Implement respiratory protection if the gross airborne activity (less noble gases) is in excess of 10 DAC, or if projected exposure in a week will be in excess of 80 DAC-hours for isotopic mix less noble gases. Make preparations for the activation of alternate facilities. Activate these facilities as soon as possible, but not so that they will have an adverse impact on the emergency response.

2.0 Assembly Areas Habitability:

IF the results of surveys at the designated areas indicate levels of:

- >5.0 mrem/hr DDE or a projected dose in seven days in excess of 100 mrem DDE, and/or,
- Gross airborne activity (less noble gases) in excess of 0.3 DAC, or projected exposure in seven days in excess of 12 DAC-hours for isotopic mix less noble gases, and/or,
- Gross airborne activity (including noble gases) in excess of 1.0 DAC; or projected exposure in seven days in excess of 40 DAC-hours for isotopic mix including noble gases,

THEN relocate personnel to another assembly area, or if necessary, request initiation of a site evacuation. Personnel, especially declared pregnant workers, minors or those not required to wear personal dosimetry devices within the BVPS Security PROTECTED AREA (e.g., clerical personnel in SOSB), should be relocated from assembly areas within the PROTECTED AREA as soon as possible. Consider potential exposures that would be incurred enroute when considering relocation and implement the action that will result in the lowest exposure.

INTENTIONALLY BLANK

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-1.6

Emergency Operations Facility Activation, Operation and Deactivation

Document Owner
Manager, Emergency Preparedness

Revision Number	17
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1
- 3.1 References 1
- 3.2 Commitments 1

4.0 RECORDS AND FORMS 1
- 4.1 Records 1
- 4.2 Forms 2

5.0 RESPONSIBILITIES 2
- 5.1 Emergency/Recovery Manager 2
- 5.2 Assistant To E/RM or EOF Operations Coordinator 2
- 5.3 Support Services Manager 2
- 5.4 Offsite Agency Liaison 2

6.0 PRECAUTIONS AND LIMITATION 3
- 6.1 Precautions 3
- 6.2 Limitations 3

7.0 PREREQUISITES 3

8.0 PROCEDURE 4
- 8.1 Activation 4
- 8.2 Operation 5
- 8.3 Deactivation 5
- 8.4 Final Conditions 5

ATTACHMENT A ALTERNATE EMERGENCY OPERATIONS FACILITY 7

ATTACHMENT B AEOF EQUIPMENT ACTIVATION CHECKLIST 13

ATTACHMENT C AEOF ARERAS ACTIVATION/DEACTIVATION PROCEDURE 15

ATTACHMENT D ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM FROM THE AEOF 17

1.0 PURPOSE

1.1 This procedure provides guidance for the Emergency Operations Facility (EOF) staff in the activation, operation and deactivation of the Emergency Operations Facility and the Alternate EOF.

2.0 SCOPE

2.1 The Emergency Operations Facility (EOF) must be activated should an emergency condition be classified as a Site Area or General Emergency. However, the EOF may be activated upon the direction of the Emergency/Recovery Manager in conjunction with the Emergency Director. This activation may occur at any classification providing the minimum requirements of this IP are met.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.

3.1.2 Beaver Valley Power Station Operating Manual.

3.1.3 Title 10 Code of Federal Regulations Part 50, Appendix E.

3.1.4 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

3.1.5 NUREG-1394 "Emergency Response Data System (ERDS) Implementation".

3.1.6 Condition Reports

- 00-2202
- 01-3759
- 02-04166
- 02-07562
- 03-02034-06

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 All forms and paperwork generated, as a result of staffing or activation of the EOF are QA records.

4.2 Forms

4.2.1 1/2-EPP-IP-1.6.F01, Contractor/Vendor Augmentation Personnel Assignment

4.2.2 1/2-EPP-IP-1.6.F02, EOF Staffing Checklist

4.2.3 1/2-EPP-IP-1.6.F03, Offsite Agency Liaison Activation Checklist

4.2.4 1/2-EPP-IP-1.6.F04, ERM Assistant Guidelines

4.2.5 1/2-EPP-IP-1.6.F05, Environmental Assessment & Dose Projection Coordinator – EOF Action Item Checklist

5.0 RESPONSIBILITIES

5.1 Emergency/Recovery Manager

5.1.1 Is responsible for activation and operation of the EOF.

5.2 Assistant To E/RM or EOF Operations Coordinator

5.2.1 Under the direction of the E/RM, is responsible for the actions outlined in form 1/2-EPP-IP-1.6.F02, EOF Staffing Checklist.

5.3 Support Services Manager

5.3.1 Is responsible for the completion of form 1/2-EPP-IP-1.6.F01, Contractor/Vendor Augmentation Personnel Assignment. This attachment shall be completed for each contractor/vendor arriving onsite during an emergency response.

5.4 Offsite Agency Liaison

5.4.1 Is responsible for the actions outlined in form 1/2-EPP-IP-1.6.F03, Offsite Agency Liaison – Activation Checklist and Attachment A, if applicable.

6.0 PRECAUTIONS AND LIMITATION

6.1 Precautions

NOTE:	If this procedure is being implemented from the AEOF, ensure the ERDS link(s) to the NRC have been activated per Attachment A of this procedure. NUREG-1394 requires activation of the ERDS link(s) within one (1) hour of the declaration of an Alert or higher classification.

NOTE:	Operability of the TSC and EOF is checked as part of Operations Manual, Chapter 58. Emergency activation of the TSC and EOF will include operability checks in addition to those mentioned above.

6.1.1 The Emergency Operations Facility will provide the following functions:

6.1.1.1 Overall management of licensee resources in response to an emergency having actual or potential environmental consequences.

6.1.1.2 Additional support to the TSC and reactor operators in the Control Room.

NOTE:	Upon EOF activation, EA&DP functions being performed by the TSC will become EOF responsibilities.

6.1.2 During a declared emergency, all personnel shall receive a radiological briefing from the TSC RadCon Coordinator or assigned RadCon personnel prior to exiting the ERF.

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 An emergency condition classified as Site Area or General Emergency has been declared at Beaver Valley Power Station Unit 1, Unit 2 or as requested by the Emergency Director or determined by the E/RM.

8.0 PROCEDURE

NOTE:	The EOF should be activated as soon as possible, but, in all cases, within one (1) hour of a SITE AREA EMERGENCY or higher classification. BVPS will continue to maintain an ERO and notification system which will have the objective of meeting the 30/60 minute response time criteria specified in NUREG-0654. It is recognized that 100% staff augmentation, within 30 minutes, may not be achievable under all circumstances. The Onsite staff shall be augmented as soon as reasonably achievable.

8.1 Activation

8.1.1 Upon declaration of an ALERT or higher emergency, the Emergency/Recovery Manager (E/RM) SHALL:

8.1.1.1 Inform the Emergency Director the EOF is ready for activation when sufficient staffing is available and the necessary emergency equipment is energized or operable.

8.1.1.1.1 The E/RM and the EA&DP Coordinator SHALL determine that the necessary emergency equipment and communications systems are available for minimum staffing.

8.1.1.1.2 The Assistant to the E/RM or the EOF Operations Coordinator (if they are present) MAY use form 1/2-EPP-IP-1.6.F02, EOF Staffing Checklist to determine that sufficient staffing is available.

8.1.1.1.3 The Offsite Agency Liaison, in conjunction with the EOF Computer Operator, if present, MAY use form 1/2-EPP-IP-1.6.F03, Offsite Agency Liaison – Activation Checklist to determine that the necessary emergency equipment is energized or operational.

8.1.1.2 Report to the Technical Support Center (TSC) and receive a briefing/turnover from the Emergency Director (using 1/2-EPP-IP 1.3, "Turnover Status Checklist", if necessary).

8.1.2 The Emergency/Recovery Manager, or designee SHALL declare the EOF operational and inform the TSC Emergency Director.

8.1.2.1 Announce the formal activation of the EOF over the following:

8.1.2.1.1 ERF Building Page

8.1.2.1.2 Operations and RadCon headset circuits.

8.1.2.1.3 Plant Page Party System

8.2 Operation

NOTE:	If access to the EOF is restricted due to radiological or other conditions, the EOF personnel shall relocate to the Alternate EOF (Attachment 2 of this procedure) until such time as access is available. The AEOF is provided with emergency equipment and materials to support initial response. If problems are EOF specific, EOF personnel may co-locate with TSC personnel (in the TSC or other locations within the ERF Building) and not report to the AEOF. If the TSC is inaccessible, TSC personnel will relocate per 1/2-EPP-IP-1.4, Attachment D, "Guidance For ERF Evacuation/Inaccessible".

8.2.1 The Emergency Operations Facility is located in the Emergency Response Facility. Equipment and facilities required for the implementation of the BVPS EPP are located in the EOF, including dedicated communication circuits.

8.2.2 Some of the EOF equipment will fall under the guidance of 1/2-EPP-IP-1.4 "Technical Support Center Activation, Operation and Deactivation" and 1/2-EPP-IP-1.2 "Communication and Dissemination of Information".

8.2.3 The functional responsibilities of the individual EOF personnel are identified in Section 5 of the BVPS Emergency Preparedness Plan.

8.3 Deactivation

8.3.1 Upon joint concurrence from the Emergency Director and the Emergency/Recovery Manager, the EOF shall be deactivated.

8.3.2 Provisions shall be made with the Emergency Director to transfer responsibilities back to the TSC or a Recovery Organization per 1/2-EPP-IP-6.2 "Termination of the Emergency and Recovery".

8.3.3 Emergency equipment/supplies shall be deactivated and restored to preactivation status, by performing an inventory of the equipment using the appropriate forms from 1/2-EPP-IP-7.1.

8.4 Final Conditions

8.4.1 This procedure shall be terminated after the following conditions have been met.

8.4.1.1 All records generated during the response have been provided to the Offsite Agency Liaison who will forward the records to Emergency Preparedness.

8.4.1.2 All functional equipment/supplies have been restored to preactivation status.

8.4.1.3 The EOF staff has been relieved of all duties associated with the operation of the EOF.

8.4.1.4 When normal operations are restored, or a recovery organization has been established.

ATTACHMENT A
Page 1 of 6
ALTERNATE EMERGENCY OPERATIONS FACILITY

A. PURPOSE

The purpose of this attachment is to describe the activation of the Alternate Emergency Operations Facility (AEOF). Instructions will be provided for activation of the Alternate EOF during day-light working hours, for activation during non-day-light hours, and when the Joint Public Information Center (JPIC) is activated. Additionally, this procedure addresses activation of the ERDS Computer from the AEOF.

B. REFERENCES

NUREG 0696 - "Functional Criteria for Emergency Response Facilities"
NUREG 1396 - "Emergency Response Data System (ERDS)" Implementation"

C. RESPONSIBILITIES

The Offsite Agency Liaison, or designee, under the direction of the Emergency/Recovery Manager is responsible for activating the Alternate EOF.

D. ACTION LEVEL/PRECAUTION

1.0 Action Level

1.1 A situation exists at the Beaver Valley Power Station which requires relocation of the EOF staff due to radiological or plant conditions.

or

Access to the Emergency Operations Facility is blocked due to radiological or other restrictive conditions.

ATTACHMENT A
Page 2 of 6
ALTERNATE EMERGENCY OPERATIONS FACILITY

E. PROCEDURE

1.0 Alternate EOF activation (ERF Building activated/JPIC not activated).

NOTE:	The TSC and EOF are already staffed and activated. (EOF Evacuation)

NOTE:	NUREG-1394 requires activation of the ERDS Computer within one (1) hour of the declaration of an Alert or higher classification.

1.1 Upon direction by the Emergency/Recovery Manager (in conjunction with the Emergency Director), EOF personnel shall transfer appropriate responsibilities to the TSC, OSC, or Control Room, (overall command and control, dose projections, etc.) prior to proceeding to the AEOF. Mangers, Coordinators, Liaisons, Offsite Agencies, etc. shall proceed to the AEOF. Assistants will report to Assembly Areas, or home as instructed by their respective Emergency Coordinators.

1.2 Proceed to the AEOF per Figure 1.

NOTE:

Designated personnel have been authorized by BVPS Security, notified and provided access to the JPIC Bldg.

1.3 Emergency/Recovery Managers and Offsite Agency Liaisons are pre-designated personnel possessing key-card access and shall enter the JPIC via the key-card door south entrance.

NOTE:	There are two key-card readers outside the JPIC door. One card reader unlocks the door and the other card reader deactivates the alarm.

1.4 Personnel shall place their key-card onto the "Alarm" card reader first to deactivate the alarm system (green light). Then, place key-card on "Door" card reader and open door. (Additional instructions are on outside and inside of the door.)

1.5 Proceed to the AEOF. Using the key from the Break-glass Box by the AEOF door, unlock the door across from the Media Workroom (not the door in the Media Presentation Area).

ATTACHMENT A
Page 3 of 6
ALTERNATE EMERGENCY OPERATIONS FACILITY

1.6 Go the end of the hall and open the door to the north entrance and place the magnetic "Entrance" sign on the outside of the door. All personnel shall enter via this door.

1.7 All AEOF personnel shall park in the area shown in Figure 1.

1.8 All AEOF personnel shall show their BVPS ID card to Security at the AEOF door (same format as the ERF).

1.9 Use Attachment B "AEOF Equipment Activation Checklist", to activate facility lighting and communications, if necessary.

1.10 Contact the Emergency Director (and other applicable personnel at the appropriate locations) and transfer designated responsibilities back to AEOF personnel.

2.0 Alternate EOF activation (JPIC activated).

NOTE:	The TSC and EOF are already staffed and activated (EOF Evacuation).

2.1 Upon direction by the Emergency/Recovery Manager (in conjunction with the Emergency Director), EOF personnel shall transfer appropriate responsibilities to the TSC, OSC, or Control Room, (overall command and control, dose projections, etc.) prior to proceeding to the AEOF. Mangers, Coordinators, Liaisons, Offsite Agencies, etc. shall proceed to the AEOF. Assistants will report to Assembly Areas, or home per their respective Emergency Coordinators.

2.2 AEOF personnel shall park in the area shown in Figure 1.

2.3 Personnel shall enter the door labeled "Entrance" and present their BVPS ID card to Security at the building entrance.

2.4 Upon entering, proceed down the hall to the AEOF and present your BVPS ID card to BVPS Security at the Alt. EOF door (same format as the ERF).

2.5 Use Attachment B, "AEOF Equipment Activation Checklist", to activate facility lighting and communications, if necessary.

2.6 Activate ERDS per Attachment D.

ATTACHMENT A
Page 4 of 6
ALTERNATE EMERGENCY OPERATIONS FACILITY

2.7 Contact the Emergency Director (and other applicable personnel at the appropriate locations) and transfer designated responsibilities to Alt. EOF personnel.

3.0 Alternate EOF activation (ERF Building not activated/JPIC not activated).

NOTE:	The TSC and EOF are not staffed or activated. This may occur during off-hours or upon immediate declaration of an Alert (or greater classification) if the EOF is inaccessible or can not perform its function.

NOTE:	BVPS Security will dispatch personnel to the AEOF instead of the ERF Building. BVPS Security personnel will be posted inside the JPIC Building, but remain outside the AEOF door for access control. Security personnel will continue to use the "ERF Building EPP Security and Dosimetry Issuance Log" to allow personnel access to the AEOF.

3.1 Upon notification that the Site is inaccessible and to report to the Alternate Emergency Facility via beepers, plant page or by phone, EOF On-Call Beeper Holders shall report to the AEOF per Figure 1 and determine the requirements for additional personnel.

NOTE:	Designated personnel have been authorized and notified by Nuclear Communications and provided access to the JPIC Bldg..

3.2 Emergency/Recovery Manager and Offsite Agency Liaisons are pre-designated personnel possessing key-card access shall enter the JPIC via the key-card door south entrance.

NOTE:	There are two key-card readers outside the JPIC door. One card reader unlocks the door and the other card reader deactivates the alarm.

3.3 Personnel shall place their key-card onto the "Alarm" card reader first to deactivate the alarm system (green light). Then, place key-card on "Door" card reader and open door. (Additional instructions are on outside and inside of the door.)

ATTACHMENT A
Page 5 of 6
ALTERNATE EMERGENCY OPERATIONS FACILITY

3.4 Proceed to AEOF using the key from the Break-glass Box by the AEOF door, unlock door across from the Media Workroom (not the door in the Media Presentation Area).

3.5 Go the end of the hall and open the door to the north entrance and place the magnetic "AEOF Entrance" sign on the outside of the door. All personnel shall enter via the north door by the parking area.

3.6 All AEOF personnel shall park in the area shown in Figure 1.

3.7 All AEOF personnel shall show their BVPS ID card to Security at the AEOF door (same format as the ERF).

3.8 Use Attachment B, "AEOF Equipment Activation Checklist", to activate facility lighting and communications, if necessary.

3.9 Activate ERDS per Attachment D.

3.10 Contact the Emergency Director (and other applicable personnel at the appropriate locations) and transfer designated responsibilities to AEOF personnel.

4.0 Deactivation

4.1 The AEOF shall be deactivated upon the direction of the Emergency/Recovery Manager and provisions should be made to transfer responsibilities back to the ERF or Control Room.

4.2 Emergency equipment/supplies shall be deactivated and restored to preactivation status.

4.3 All records generated during the response have been provided to the Offsite Agency Liaison who will forward the records to Emergency Preparedness.

F. FINAL CONDITIONS

1.0 Radiological and/or plant conditions have been returned to normal.

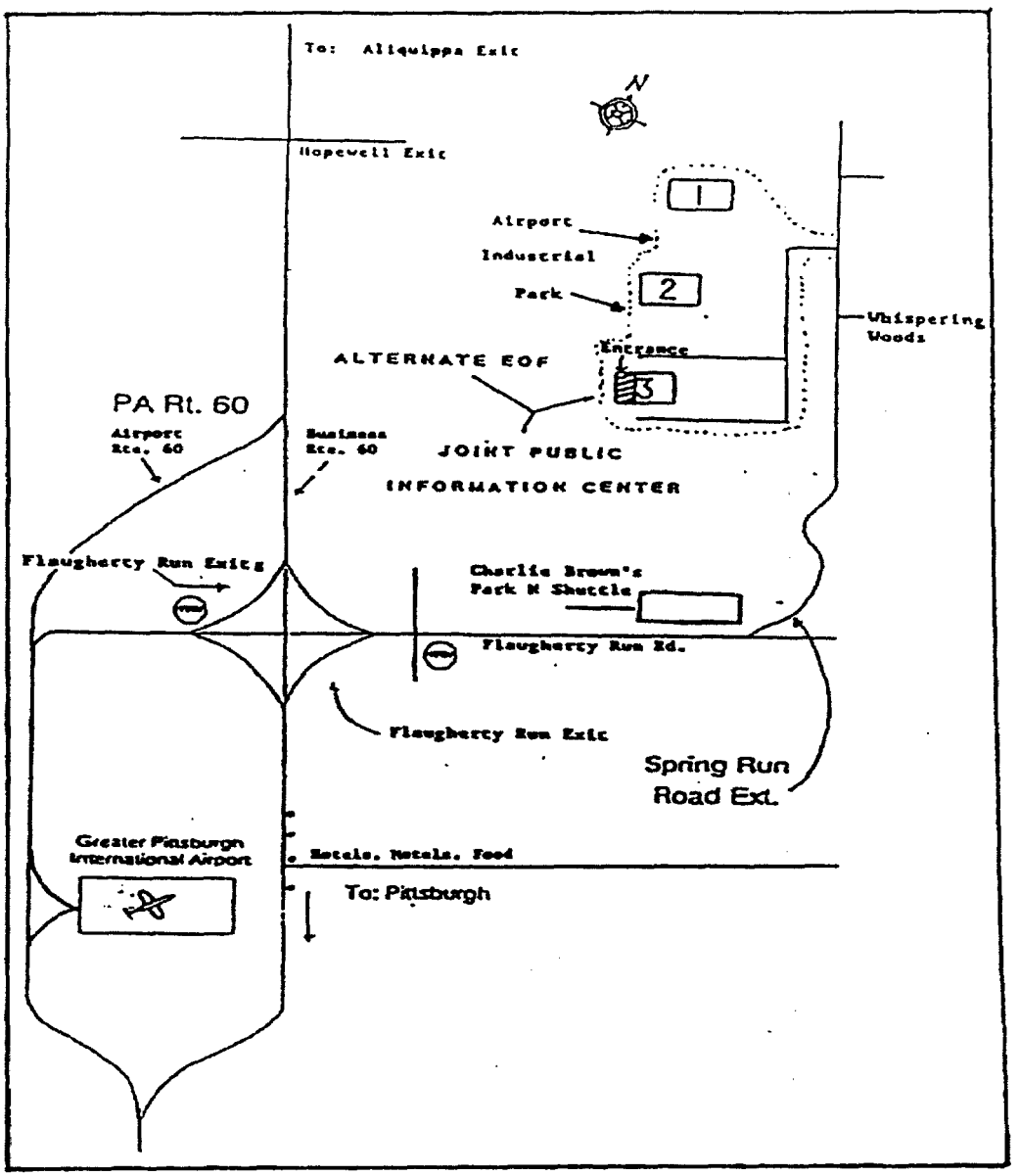
2.0 The EOF has become habitable and a recovery organization established, if needed.

3.0 The last individual to exit the JPIC Building should re-activate the alarm system per instructions by the alarm box.

ATTACHMENT A
Page 6 of 6
ALTERNATE EMERGENCY OPERATIONS FACILITY

Figure 1

DIRECTIONS TO ALT. EOF



ATTACHMENT B
Page 1 of 1
AEOF EQUIPMENT ACTIVATION CHECKLIST

- **JPIC BUILDING LIGHTING**

If there is inadequate lighting in the JPIC or AEOF area, go to the Loading Dock area. On the wall opposite the entrance to the Loading Dock are the breaker panels. Open the last breaker box panel on the right and turn on appropriate breakers (breakers are labeled).

- **CHECK PAX PHONES**

If some PAX phones do **not** work, go to the TELECOMMUNICATIONS ROOM (the AEOF key will open this door) and throw the switch labeled AEOF "ON/OFF". This switch is located on the right wall approximately 10' from the door and approximately 6' off the ground. Some PAX phones are transferred from the EOF to the AEOF by this switch. If all PAX phones are operational, the switch is already "ON".

- **ACTIVATE THE OPERATIONS AND RADCON RINGDOWN PHONES AND HEADSET CIRCUITS.**

NOTE:

The OPERATIONS RINGDOWN PHONE will ONLY contact the Control Room. The RADCON RINGDOWN PHONE will ONLY contact the OSC via the EA&DP RSO line and the U1 and U2 Rad Monitor panels. No communications are possible with the ERF Building via the RINGDOWN lines.

- **ACTIVATE ERDS** (IF NOT ALREADY DONE).

Activate ERDS per 1/2-EPP/IP-1.6, EMERGENCY OPERATIONS FACILITY ACTIVATION, OPERATION AND DEACTIVATION, Attachment A.

INTENTIONALLY BLANK

ATTACHMENT C
Page 1 of 1
AEOF ARERAS ACTIVATION/DEACTIVATION PROCEDURE

ACTIVATION

1) Turn on ARERAS capable computer, if not already on.

2) Double click Dose Projection icon.

3) At the prompt type:

ATDT 5090, or
ATDT 5573, or
ATDT 5657, or
ATDT 5659

(the specific PAX Phone number for accessing ARERAS from the AEOF).

4) When the word "**Connect**" appears on the screen, strike the Return key two times quickly.

5) This completes the LOGON process for ARERAS from the AEOF. Follow normal procedures (e.g.: EPP/IP 2.6.2 FSAR Defaults, EPP/IP 2.6.3 Real-Time Inputs, EPP/IP 2.6.4 Manual Inputs or EPP/IP 2.6.12 Severe Accident Assessment)

DEACTIVATION

1) Exit the ARERAS program normally.

2) When the words "**No Carrier**" appear on the screen, the modem connection has been terminated.

3) Shut down the computer.

4) Turn off the computer.

INTENTIONALLY BLANK

ATTACHMENT D
Page 1 of 3
ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM FROM THE AEOF

NOTE:	If the ERDS Link(s) cannot be activated for any reason, inform the Emergency/Recovery Manager that the ERDS Link(s) are out of service and backup phone communications using 1/2-EPP-IP-1.4 as guidance with the NRC should be established.

1.0 Obtain the necessary logon information (Username and password) from the envelope in the file cabinet containing the EPP/IP's. The information is maintained in an envelope on the inside of the top drawer.

NOTE:	Before attempting to power on the equipment, verify that the unit is powered off by pressing any key--not just in the screen saver mode. The NCD19C X terminal has a built-in screen saver facility. This screen saver facility will dim the display screen monitor if the keyboard or mouse has not been used for an extended period of time. If the X terminal is in screen saver mode, moving the mouse or pressing any key on the keyboard will cause the display monitor to be refreshed. If the display monitor remains blank after moving the mouse or depressing a key, then the NCD19C X terminal is either broken or powered off.

1.1 If not already powered on, power on the NCD19C X terminal using the power switch located on the rear of the NCD19C base unit.

1.2 If not already powered on, turn on the HP LaserJet IIIP laser printer using the power switch located on the right side of the unit.

After turning on power to the HP LaserJet IIIP, the printer will perform a series of power-on self tests. If the power on self test successfully completes, all indicator lights on the operator panel will be off except the ONLINE indicator, and the status display will read "00 READY LETTER". If any other indication is present on the printer, then power-on self tests were not successfully completed and you will be unable to make hard copies of the screen displays. In either case, proceed with the activation procedure.

1.3 If not already powered on, turn on both of the Telebit T3000 modems using the power switch located on the left rear of each unit.

ATTACHMENT D
Page 2 of 3
ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM FROM THE AEOF

1.4 After completing the power on self tests, the modems will automatically connect with the corresponding modems located in the ERF Computer Room.

While attempting this connection process, you will be able to hear the modem "training" sequence. When a successful connection has been established, the modem speaker will be turned off and the modem will operate silently.

If a connection is successfully established, then the following status indicators on the front panel of the modem should be illuminated:

* MR * OH * CD * DTR * RTS * CTS

Under normal phone line conditions, the HS and EC lights should also be lit. Under poor phone line conditions, these two lights may not be illuminated.

1.5 The NCD19C is configured to automatically display a serial terminal session on the NCD19C X terminal after boot up. Press <RETURN> until the VMS logon prompt appears on the display screen.

1.6 Enter the appropriate information from the card and press <RETURN> in response to the "Username:" prompt.

1.7 Enter the current password from the card and press <RETURN> in response to the "Password" prompt.

If the correct user name and password were entered, then the VMS system prompt ($) will appear on the display screen.

1.8 Enter "XINITREMOTE" to initiate the XRemote X windows server. After two or three minutes, the initialized MMI display window with the "TOP MENU", "SCREEN UP", "SCREEN DOWN" and "PREV. SCREEN" function buttons will be displayed on the NCD19C X terminal.

NOTE:	If either of the phone lines between the AEOF and the ERF Computer Room are inadvertently lost, depress and release the T/D button located on the front panel of the Telebit T3000 modem and return to Step 1.4 and repeat the necessary steps.

1.9 Move the pointer to the dash in the upper left corner of the control menu box of the MMI display menu. Using the mouse, click once and select "Lower" from the pop-up menu.

ATTACHMENT D
Page 3 of 3
ACTIVATION OF THE EMERGENCY RESPONSE DATA SYSTEM FROM THE AEOF

1.10 Position the pointer to the lower left hand corner, double click on the "BVERDS" icon.

1.11 Position the pointer to "Applications" from the pop-up Session Manager menu. Click on "Applications" and select "DECterm" from the pop-up menu.

1.12 Type in "ERD", leave a space and "1" or "2" depending on the affected unit. Hit return and follow screen prompted instructions to activate link.

1.13 While link is activating, "Link Status" will change from "Offline" to "Attempting Connection" to "Modem Connected" to "Online". Additionally, Link Status will change from "Offline" to "Connect Modem" to "Connect ERDS" to "Sending Data" or "Waiting".

1.14 Position the pointer to the dash in the upper left corner of the control menu box of the DECterm window. Using the mouse, click once and select "minimize" from the pop-up menu.

NOTE:	If both ERDS Links need to be activated due to an Alert declaration or higher, repeat steps 1.11 thru 1.14 for the opposite unit.

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-1.7

EMERGENCY RESPONSE ORGANIZATION (ERO) TEAMS

Document Owner
Manager, Emergency Preparedness

Revision Number	13
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 2

4.1 Records 2
4.2 Forms 2

5.0 RESPONSIBILITIES 2

5.1 Manager, Emergency Preparedness 2
5.2 ERO Members 2
5.3 BVPS Emergency Response Organization 2
5.4 Emergency Preparedness Personnel 3

6.0 PRECAUTIONS AND LIMITATIONS 3

6.1 Precautions 3
6.2 Limitations 3

7.0 PREREQUISITES 3

8.0 PROCEDURE 3

8.1 ERO Team Response Assignments/Responsibilities 3
8.2 Beeper/Responsibility Assignments and Transfers 4
8.3 ERO Activation 5
8.4 ERO Response During Working and Non-working Hours 8

ATTACHMENT A ERO EXPECTATIONS 11

1.0 PURPOSE

1.1 This procedure provides the guidance for maintaining the Beaver Valley Power Station Emergency Response Organization (ERO) and ERO augmentation.

2.0 SCOPE

2.1 This procedure describes the Beaver Valley Power Station (BVPS) Emergency Response Organization (ERO) Teams including: designations, assignments, responsibility, transfers, overall coordination and ERO expectations.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Emergency Preparedness Plan.

3.1.2 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

3.1.3 Title 10, Code of Federal Regulations Part 50, Appendix E.

3.1.4 NOP-LP-1002 "Fitness-For-Duty".

3.1.5 Condition Reports

- 00-4309
- 01-6025
- 02-00444-6
- 02-10225-1
- 03-02032-06
- 03-02103-03
- 03-02034-03
- 03-02034-10
- 03-02103-02
- 03-02034-07

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 1/2-EPP-IP-1.7.F01, On-Call ERO Response Team Transfer Form

5.0 RESPONSIBILITIES

5.1 Manager, Emergency Preparedness

5.1.1 Is responsible for the overall coordination of the ERO Teams and the associated Call-List.

5.2 ERO Members (assigned to a dedicated response team (Red, White, Blue) or ERO Pool personnel (Green))

5.2.1 Are responsible for the actions described in this procedure.

5.3 BVPS Emergency Response Organization

5.3.1 Will consist of three (3) dedicated response teams, each with required designated Primary and Secondary responders, supplemented by designated support (call-tree) personnel. The teams will be identified by colors (i.e., Red, White, Blue).

5.3.1.1 Primary Responders

5.3.1.1.1 Shall report to their emergency facility as soon as possible, and in all instances, within one (1) hour of notification of an Alert, or higher, emergency classification.

5.3.1.2 Secondary Responders

5.3.1.2.1 Shall report to their emergency facility as soon as possible, and in all instances, within two (2) hours of notification of an Alert, or higher, emergency classification.

5.3.1.3 Designated Support (call-tree) Personnel

5.3.1.3.1 Are to report to their emergency facilities as soon as possible following notification.

5.3.1.4 ERO Personnel Not Assigned to One of the Three (3) Dedicated Response Teams

5.3.1.4.1 Will be assigned to the ERO Team Pool, and shall report as soon as possible following notification. The Team Pool will also be identified by color (Green).

5.4 Emergency Preparedness Personnel

5.4.1 Initial team assignments will be determined by Emergency Preparedness personnel. ERO response team transfers shall be approved by the Manager, EP. Temporary transfers are described in Section E.3 of this procedure.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 None

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 This IP remains in effect at all times to ensure a full state of readiness is maintained.

7.2 All ERO personnel shall be aware of the requirements stipulated in this procedure.

7.3 Transfers of ERO personnel responsibility shall follow the guidance provided in this procedure.

8.0 PROCEDURE

8.1 ERO Team Response Assignments/Responsibilities

8.1.1 Dedicated Response Teams will rotate between the following response categories: On-Call, Stand-By and Back-Up.

8.1.1.1 On-Call responders are those personnel who shall respond immediately when notified. An On-Call team shall consist of Primary Responders, Secondary Responders, and designated support personnel.

8.1.1.2 Stand-By responders have no response responsibility for the week that they are designated as Stand-By. A Stand-By team shall consist of Primary Responders, Secondary Responders, and designated support personnel.

8.1.1.3 Back-Up responders are the designated relief personnel (12-hour shifts) for the On-Call responders. A Back-Up team shall consist of Primary Responders, Secondary Responders, and designated support personnel.

8.1.2 ERO Response Teams shall rotate weekly.

8.1.2.1 Rotation assignments shall be as follows (ERO Rotation Calendar available on BVWeb, EPP Web Page):

- On-Call to Stand-By
- Stand-By to Back-Up
- Back-Up to On-Call

8.1.2.2 Rotation shall occur every Monday at 0800 hours.

8.1.3 On-Call Team Fitness For Duty (FFD) requirements.

8.1.3.1 Personnel designated "On-Call" Primary and Secondary Responders shall adhere to Fitness For Duty (FFD) requirements per NOP-LP-1002.

8.1.3.2 Personnel conducting a call-out must ask the individual "If they have consumed alcohol within the last 5 hours."

8.1.3.2.1 Personnel responding to a call-out must meet FFD requirements.

8.1.3.3 If deemed necessary, FFD testing shall be conducted prior to beginning ERO duties.

8.1.4 ERO personnel shall adhere to the ERO Expectations (Attachment A).

8.2 Beeper/Responsibility Assignments and Transfers

8.2.1 All personnel assigned to an ERO position as either a Primary or Secondary responder shall be assigned a beeper unless otherwise noted.

8.2.2 On Call personnel arranging transfer of ERO responsibility shall notify Emergency Preparedness per Form 1/2-EPP-IP-1.7.F01.

8.2.3 Transfer of assignment responsibility for On-Call Team Responders shall fall into three (3) categories.

NOTE:	Individuals shall consult the ERO Call-List to determine the identity of qualified personnel for their ERO position for On Call transfer of responsibility. The ERO Call-List is distributed in paper format and is also available on the Emergency Preparedness Web page (most current list).

NOTE: If personnel in the On-Call category will not be available for any portion of their one week rotation, they shall arrange for a qualified replacement from the GREEN or Stand-by Team prior to requesting a replacement from the Back-up Team.

8.2.3.1 On-Call Team personnel who will be unavailable to respond for a period of less than 24 hours shall do the following:

NOTE: Emergency Preparedness DOES NOT need to be informed when a transfer of responsibilities for less than 24 hours occurs.

8.2.3.1.1 Ensure their position is covered by another qualified individual for that ERO position

8.2.3.2 On-Call Team personnel who will be unavailable to respond for a period of greater than 24 hours shall do the following:

8.2.3.2.1 Ensure their position is covered by another qualified individual for that ERO position by completing form 1/2-EPP-IP-1.7.F01, "On-Call ERO Response Team Transfer Form"

8.2.3.2.2 Mail (or FAX @ PAX 5777) form 1/2-EPP-IP-1.7.F01, to the Manager, Emergency Preparedness. If during off-normal working hours, contact Emergency Preparedness and provide the information on 1/2-EPP-IP-1.7.F01. Mail (or FAX) a completed document to the Manager, Emergency Preparedness.

8.2.3.2.3 On-Call Team personnel who will be unavailable to respond due to sudden illness (NOI&I) or personal emergency should attempt to locate a replacement. If a replacement can not be located, contact Emergency Preparedness.

8.2.4 All personnel assigned beepers are responsible for maintaining operability of that beeper (i.e., changing batteries when necessary). Personnel shall keep their beepers "on" at all times (and in the audible mode when appropriate) and respond accordingly to ALL beeper activations.

8.3 ERO Activation

8.3.1 Beaver Valley Emergency Response System (BVERS) Notification

NOTE: BVERS is a computer aided Voice Mail system that will be used to activate the ERO Beepers and accept personnel call backs.

8.3.1.1 Beepers will be activated for ERO notifications with the following Actual Event – On-Call ERO Team phone: 724-643-4370 (or 330-315-4380).

8.3.1.1.1 **Only On-Call ERO Team personnel shall call back into BVERS by dialing 724-643-4370/330-315-4380, as required.**

8.3.1.2 Beeper Holder Response

8.3.1.2.1 Upon calling into BVERS, you will be prompted to enter your SAP I.D. number (e.g.: 0123). *Data entry requires a touch tone phone.* BVERS will then ask you to verify the number by pressing "9" (yes) or "6" (no).

8.3.1.2.2 A message will be provided at this time stating the Unit, time and emergency classification declared and the basis for the declaration.

NOTE: BVERS will have information on all qualified ERO personnel programmed into its data base, and will know who you are and for which ERO position you are currently qualified by your SAP I.D. entry. Personnel calling into BVERS will either access the system immediately, or receive a busy signal. Personnel calling back should be able to access the system within a few minutes.

8.3.1.2.3 BVERS will ask the following questions:

* BVERS will ask if you understand the message by pressing "9" (yes) or "6" (no).
* BVERS will ask if you are Fit For Duty and ask you to acknowledge by pressing "9" (yes) or "6" (no).
* BVERS will ask if you are able to respond and ask you to acknowledge by pressing "9" (yes) or "6" (no).
* BVERS will ask you to enter your Estimated Time of Arrival in minutes (enter your travel time from your location to your emergency facility).
* BVERS will then terminate the connection.

8.3.1.2.4 BVERS will print out reports for the Control Room, Emergency Response Facility, and Joint Public Information Center identifying those personnel who have called in.

8.3.1.2.5 The ERO Team designated as Back-Up does not need to call-in but shall report 12-hours after emergency declaration, unless otherwise notified.

8.3.1.3 If BVERS determines that a specific ERO position has not been staffed, it will activate the individual Beepers for all personnel in that specific ERO position with the following display: **724-643-4370 or 330-315-4380**

8.3.1.3.1 **Any ERO Beeper Holder receiving a Beeper Code of 724-643-4370 or 330-315-4380 SHALL call into BVERS**, answer the questions requested and report to their designated emergency facility. *(This assumes that the On-Call individual is unable to respond.)*

8.3.1.3.1.1 If the ERO position has been filled, any other personnel calling in to respond to the position will be informed that there are no positions available.

8.3.1.3.1.2 If the On-Call individual becomes available, he/she shall call into BVERS and report to their emergency facility.

8.3.1.4 If BVERS determines that a specific ERO position has still not called in, BVERS will perform the following notifications for personnel in that specific ERO position:

* Call the individual PAX phone numbers of personnel in that specific position,
* Call the individual Home phone numbers of personnel in that specific position, and
* Again, activate the individual Beepers for personnel in that specific ERO position.
* This will continue until the ERO position is filled.

8.3.2 ERO Voice Mail System (ERO-VMS) Notification

NOTE:	The ERO-VMS is a typical voice mail system that is used to activate the ERO Beepers and accept personnel call backs **in the event that the primary BVERS system is unavailable.** The ERO-VMS utilizes the ERF switch and has remote accessing features. There is only one beeper call back number for ERO-VMS.

8.3.2.1 Beepers will be activated for ERO notifications with the following Beeper Codes:

* Actual events "9999995080"
* Actual events - Site Inaccessible "0000005080"

8.3.2.1.1 **Only On-Call ERO Team personnel shall call back into the ERO-VMS by dialing 724-682-5080 (PAX 5080).**

8.3.2.1.2 ERO-VMS call-back number is listed on the ERO Call-List.

8.3.2.2 Beeper Holder Response

8.3.2.2.1 The ERO-VMS will inform you that an emergency has been declared and ask that you provide the following information. If you have not consumed alcohol in the last 5 hours, (personnel must verbally provide this information at the sound of the tone):

* Your name (please spell last name)
* ERO position
* Estimated time of arrival (Time of Day, i.e., 2145 Hrs., 0115 Hrs.)

8.3.2.2.2 If you have consumed alcohol in the last 5 hours, contact an alternate for your emergency position.

NOTE:	ERO-VMS has a maximum of 4 incoming lines. As a line becomes available, the next call received will be answered. If no lines are available, a busy signal will be received.

8.4 ERO Response During Working and Non-working Hours

8.4.1 Response During Working Hours

8.4.1.1 "On-Call" ERO Personnel (Primary, Secondary and designated Support (Call-Tree) personnel SHALL respond as follows:

8.4.1.1.1 Primary and Secondary responders SHALL call the Beaver Valley Emergency Response System (BVERS) prior to responding to their emergency location (This includes personnel onsite).

8.4.1.1.2 ALL "On-Call" ERO personnel SHALL respond to their emergency facility.

8.4.1.1.3 Determine manpower needs and supplement, as necessary.

8.4.1.2 All Other ERO Personnel

8.4.1.2.1 SHALL report to their emergency facility.

8.4.1.2.2 Take direction from the "On-Call" ERO personnel.

8.4.2 Response During Non-Working Hours

8.4.2.1 "On-Call" ERO Personnel

8.4.2.1.1 Beeper Holders SHALL call the Beaver Valley Emergency Response System (BVERS) and respond to their emergency location.

8.4.2.1.2 Determine manpower needs and "call-out" additional personnel, if necessary.

8.4.2.2 All Other ERO Personnel

8.4.2.2.1 Beeper Holders SHALL remain alert for further instructions (call-out, shift rotation, etc.).

8.4.2.2.2 All other ERO personnel will be called-out, if necessary.

INTENTIONALLY BLANK

ATTACHMENT A
Page 1 of 4
ERO EXPECTATIONS

Duty Expectations/Pager Response Expectations

- All ERO personnel shall understand, and adhere to, the requirements of procedure 1/2-EPP-IP-1.7, Emergency Response Organization (ERO) Teams.

- All ERO personnel assigned ERO Pagers are expected to wear their Pagers at all times when within the Pager Service Area (located on the EPP Webpage/ERO Info) and respond appropriately to messages. The following are some unacceptable responses for NOT responding to Pager messages:

  - Pager left in vibrate when not being worn
  - Pager left in other location too far to hear audible alarm (i.e.: bathroom, shower, etc.)
  - Weak/dead battery

- All ERO notifications initiated by BVERS shall display one of the following messages:

  1) "Actual Event-On-Call ERO Team call 724-682-4730", or,
  2) "This is a Drill-On-Call ERO Team call 724-682-4730"
     (*An alternate phone number that may be displayed for BVERS is 330-315-4380*)

     - <u>When the above messages are displayed, ALWAYS call the number provided.</u>
     - These are the ONLY two alpha messages initiated by BVERS that require ERO response (other alpha messages are for information, or non-ERO response).

- Only On-Call ERO personnel are to initially call-in to BVERS.

- If only the BVERS phone number (724-682-4730 or *330-315-4380*) is displayed (BVERS searching to fill a specific ERO position), then any individual receiving this message shall call-in, respond and upon being accepted, report for your position as required.

- For an <u>actual event</u>, or Drill/Exercise, a BVERS Pager message shall be followed by a LOTUS NOTES alpha-numeric message describing the event and emergency declaration time.

- Upon notification, On-Call ERO personnel shall report to their ERO positions as soon as possible, but no later than their assigned response times from the time of the emergency declaration (this includes allowing for Facility activation time).

ATTACHMENT A
Page 2 of 4
ERO EXPECTATIONS

Duty Expectations/Pager Response Expectations (cont.)

- On-Call ERO personnel are expected to maintain response times to their respective emergency response facilities (1 or 2 hours from the time of event declaration, not the time of Pager activation).
- For actual events, personnel are to respond appropriately when notified by Pager (via BVERS/Lotus Notes), Plant Page Party System, phone or BVERS phone call. (i.e.: take cover, report to emergency facilities, report to alternate facilities, etc.).
- For Drills or Exercises, personnel are to respond appropriately when notified by Pager (BVERS/Lotus Notes), Plant Page Party System, phone or BVERS phone call (i.e.: take cover, report to emergency facilities, report to alternate facilities, call-in Drill/OST only).
- In the event alphanumeric messaging is not available, ERO Pagers will be activated with one of these message codes:
  1) 9999995080 (Actual Event/Site Accessible), On-Call ERO personnel report to their assigned emergency facilities.
  2) 0000005080 (Actual Event/Site Inaccessible), On-Call ERO Managers/Coordinators report to the Alternate EOF per procedure.
     - The ERO call-back phone number for this response is 724-682-5080.
- ERO personnel On-Call are expected to maintain fitness-for-duty per 10CFR26.
- For actual events occurring when personnel are at the Site, all ERO personnel are expected to report to their appropriate emergency facility to support the On-Call Team (only On-Call ERO personnel call-in to BVERS).
- ERO personnel are not to call the Control Room upon notification of an emergency, unless specifically requested.
- On-Call ERO personnel are expected to have their FirstEnergy ID Badge and Dosimetry when reporting to their respective facilities.
- If an On-Call ERO member becomes incapable of performing their ERO duties, they are to contact another qualified person for that position and transfer On-Call responsibility. (Notification to EPP personnel of the transfer is per 1/2-EPP-IP-1.7.).

Duty Expectations/Pager Response Expectations (cont.)

- Emergency Facility Leads should define their expectations for their Team while remaining cognizant of Facility activation timing requirements (i.e.: delegate activities, maintain overview of events, involve the Team in response, etc.).

- ERO personnel must provide information, not just data points, to each other and the Facility Lead, i.e.:

  - Explain the meaning of a data point provided to the Team (i.e.: D/G #1 tripped off vs. D/G #1 tripped off and was the only remain power supply)

- ERO communications shall use three-way communications and noun descriptors.

- Following Actual Events, Drills/Exercises or staffing of Emergency Facilities to provide plant support, each Emergency Facility SHALL conduct and document a critique.

  - The critique will be lead by the Facility Lead.
  - A Condition Report will be written for each Delta (Area For Improvement) as deemed necessary by the Facility Lead.
  - The person presenting the comment warranting the Condition Report SHALL write the Condition Report.
  - Each Delta presented, whether a Condition Report was warranted or not, SHALL have the presenters name written beside the comment.
  - Emergency Preparedness will be notified of each Condition Report written.

- Facility equipment, procedure or supply challenges that occur during Actual Events, Drills or Exercises SHOULD have a resolution attempted during the Actual Event, Drill or Exercise, not simply commented upon during the critique.

ATTACHMENT A
Page 4 of 4
ERO EXPECTATIONS

ERO Training and Drill Participation Expectations

- Attend appropriate Initial ERO Classroom Training for assigned position.
- Attend appropriate Continuing ERO Classroom Training for assigned position.
- Attend assigned ERO Team Drills/Exercises (Drill participation for key ERO positions is tracked as a NRC Performance Indicator.)
- Managers and supervisors shall ensure that each ERO member under their supervision remains fully qualified at all times to respond to an emergency.
- Ensure ERO participation in training and Drills is documented.
- Participate in Drill/Exercise critiques and identify areas for improvement and strengths so appropriate corrective actions can be taken.
- ERO personnel shall initiate Condition Reports, and notify EPP, as necessary.
- ERO personnel shall respond to, or assist EPP personnel, with the response to Condition Reports.
- Ensure their emergency response facility is in a state of readiness prior to leaving the facility by conducting a facility inventory using the appropriate forms for 1/2-EPP-IP-7.1.

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-2.6

ENVIRONMENTAL ASSESSMENT AND DOSE PROJECTION CONTROLLING PROCEDURE

Document Owner
Manager, Emergency Preparedness

Revision Number	15
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 1

4.1 Records 1
4.2 Forms 1

5.0 RESPONSIBILITIES 1

5.1 Shift Radiation Protection Technician 1
5.2 EA & DP Team 2

6.0 PRECAUTIONS AND LIMITATIONS 2

6.1 Precautions 2
6.2 Limitations 2

7.0 PREREQUISITES 2

8.0 PROCEDURE 3

ATTACHMENT A EA & DP TEAM MEMBERS 21
ATTACHMENT B EA & DP EQUIPMENT CHECKLIST 23
ATTACHMENT C ASSESSMENT METHOD SELECTION CHART 25
ATTACHMENT D TERMINATION OF RADIOACTIVITY RELEASES DURING EMERGENCIES 27

A5.715ED

1.0 PURPOSE

1.1 This procedure provides instructions to Environmental Assessment and Dose Projection (EA & DP) personnel for the performance of emergency response tasks associated with the EA & DP function. This controlling procedure is the entry point of all other EPP/IP's related to EA & DP functions.

2.0 SCOPE

2.1 None

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Unit 1 Technical Specification Amendment 205.

3.1.2 Unit 2 Technical Specification Amendment 101.

3.1.3 Condition Reports

- 00-2202
- 03-07964

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 None

5.0 RESPONSIBILITIES

5.1 Shift Radiation Protection Technician

5.1.1 Perform Steps 8.1 through 8.7 of this procedure to perform EA & DP activities in the event of an emergency.

5.2 EA & DP Team A5.715ED

5.2.1 Once applicable prerequisites (e.g., personnel staffing, equipment and communications capability, etc.) are met, the responsibility for performance of EA&DP functions shall transfer to the EA & DP team. This transfer of responsibility may occur prior to activation of the TSC/EOF.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 Use caution when reporting radioactivity releases, or the termination of such releases, to offsite agencies or other emergency response organizations. Generally, PLANNED RELEASES are NOT reported.

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 This procedure shall be performed whenever the following action levels are present.

7.1.1 An abnormal radioactivity release has occurred and the results of assessments performed in accordance with 1/2-HPP-3.06.012, 1/2-HPP-3.06.013 (EAGER), 1/2-EPP-IP-2.7, or 1/2-EPP-IP-2.7.1 (ALIAS) indicate that the release has exceeded 200 times Technical Specification/Offsite Dose Calculation Manual limits (i.e., an Alert emergency),

- OR -

7.1.2 An Unusual Event emergency has been declared AND an UNPLANNED RELEASE to the environment has occurred, is ongoing, or is imminent.

- OR -

7.1.3 An Alert, or higher classification, emergency has been declared and TSC/EOF activation has been initiated,

- OR -

7.1.4 As requested by the Emergency Director or Emergency/Recovery Manager.

8.0 PROCEDURE

NOTE:	Shift Radiation Protection (RP) Technicians perform Steps 8.1 through 8.7. EA & DP personnel enter this procedure in Step 8.8.

8.1 Obtain Dose Projection Worksheet Book from the OSC and proceed to Control Room of affected Unit to obtain direction and supporting data from SM.

8.2 Consult with Operations and determine the type of radioactive release.

8.2.1 IF an UNPLANNED liquid release, THEN proceed to Step 8.3.

8.2.2 IF an UNPLANNED airborne release, THEN proceed to Step 8.4.

8.3 Assess liquid release. Report Results to SM.

8.3.1 IF ARERAS is available, AND the release was monitored or sample data are available, THEN assess the release using ALIAS as described in 1/2-EPP-IP-2.7.1.

NOTE:	IF the liquid release was unmonitored, a release rate may be estimated using the guidance of Attachments F or K of 1/2-EPP-IP-2.7, and entered into the ALIAS code as described in 1/2-EPP-IP-2.7.1.

8.3.2 IF ARERAS is NOT available, THEN perform 1/2-EPP-IP-2.7.

NOTE:	Information regarding a Protective Action Recommendation due to a radioactive liquid release is located in 1/2-EPP-IP-4.1.

8.3.3 Proceed to Step 8.38.

8.4 Perform needed radiological assessment, based on the current emergency classification and report results to the SM.

8.4.1 IF any of the following conditions are true, THEN proceed to Step 8.5.

8.4.1.1 Alert, Site Area, of General Emergency has been declared.

8.4.1.2 Radioactivity release has NOT started, or is unmonitored.

8.4.1.3 Radiation monitor reading exceeds EAL INDICATOR for Site Area or General Emergency.

8.4.2 IF ARERAS is available, THEN assess the release using EAGER as described in 1/2-HPP-3.06.012.

8.4.3 IF ARERAS is NOT available, THEN perform 1/2-HPP-3.06.013.

8.4.4 IF the results indicated that an Alert Emergency has occurred, THEN proceed to Step 8.5.

8.4.5 Proceed to Step 8.38.

8.5 Assess offsite doses for airborne release. Report results to SM.

NOTE: The dose assessment method selection steps below are illustrated on Attachment C. Once the method is selected and performed, proceed to Step 8.6.

8.5.1 IF ARERAS is available, THEN perform the specified procedure(s) and proceed to Step 8.6.

8.5.1.1 IF meteorological data are NOT available, THEN perform 1/2-EPP-IP-2.6.5 and THEN perform 1/2-EPP-IP-2.6.4 (manual entry of Met and Rad).

8.5.1.2 IF the release is unmonitored OR has NOT started, THEN perform 1/2-EPP-IP-2.6.2 (FSAR default case).

8.5.1.3 IF the release is monitored AND ongoing:

NOTE: The intent of using GETRAD is to ensure that the current 15 minute average data represents the current release rate. IF the release started midway during an averaging period, the average for that period would underestimate the release.

8.5.1.3.1 Call up a display of the current radiation monitor data using the GETRAD task ("GR" from MIDAS menu).

8.5.1.3.2 Note the differences between the instantaneous readings and the average readings.

8.5.1.3.3 IF the average readings are comparable to the instantaneous readings, THEN perform 1/2-EPP-IP-2.6.3 (Real Time Inputs).

8.5.1.3.4 IF the average readings are significantly less than the instantaneous values, THEN perform 1/2-EPP-IP-2.6.4 (Manual entry of Met and Rad).

8.5.1.4 IF the release has already been terminated, THEN perform 1/2-EPP-IP-2.6.4 (Manual entry of Met and Rad).

8.5.2 IF ARERAS is NOT available, THEN perform the specified procedure(s) and proceed to Step 8.6.

8.5.2.1 IF meteorological data are NOT available, THEN perform 1/2-EPP-IP-2.6.5 and proceed to the next Step (8.5.2.2).

8.5.2.2 IF the release is unmonitored OR has NOT started, THEN perform 1/2-EPP-IP-2.6.2 (FSAR default case).

8.5.2.3 IF the release is (was) monitored, THEN perform 1/2-EPP-IP-2.6.1 (monitored worksheet).

8.6 Perform other assessments, as requested by SM.

8.7 Turnover assessment role to EA & DP **OR** proceed to Step 8.38.

8.8 TSC/EOF EA & DP entry point.

NOTE:	This procedure is intended to address the significant EA & DP activities associated with a reasonable number of foreseeable emergency response situations. However, an actual situation may take a course different from those envisioned when this procedure was written. This could result in a situation in which the instructions prevent the necessary actions from being performed, or are otherwise inadequate. In these cases, the EA & DP Coordinators shall take reasonable action(s) necessary when immediate action is required to protect the public health and safety and no means of equivalent protection are immediately apparent.

NOTE:	The steps in this procedure should be generally performed in the order written. However, steps may be omitted, performed out-of-sequence, or performed simultaneously, at the discretion of the lead EA & DP Coordinator. As emergency conditions change, it may be necessary to re-perform selected steps. Designated EA & DP personnel have, by virtue of training and experience, sufficient technical knowledge and judgment capabilities to address these situations.

8.9 Initiate Procedure

8.9.1 Log start date of procedure: _____

8.9.2 Log start time of procedure: _____

8.10 Prepare to assume assessment duties from the onshift RP Technician

8.10.1 Obtain key to EA & DP emergency cabinet from the key cabinet located in the TSC or EOF.

8.10.2 Unlock cabinet and take EA & DP manuals and supplies to the EA & DP area.

8.10.3 Ensure that as additional EA & DP personnel arrive, they have completed the following:

8.10.3.1 Have identification badges on.

8.10.3.2 Have personal dosimetry.

8.10.4 Setup, energize, and determine operability of equipment listed on Attachment B.

8.10.5 Via the Radcon circuit, determine whether shift Radiation Protection (RP) personnel are currently in the process of performing a dose assessment.

NOTE: If the shift RP personnel indicate that they are currently performing a dose assessment, the lead EA & DP Coordinator shall coordinate the transfer of responsibility from shift personnel to the EA & DP Team so as to prevent delays in completing the projection and/or necessary protective action recommendations, and to minimize repetitive work.

NOTE: The current radiological activities for the following outside tanks are maintained in the Shift RP Logs:

- BR-TK-6A,
- BR-TK-6B,
- LW-TK-7A
- LW-TK-7B
- QS-TK-1 (Unit 1 Reactor Water Storage Tank)
- 2QSS-TK-21 (Unit 2 Reactor Water Storage Tank)
- Temporary Outside Storage Tank(s)

During turnover from Shift RP technician to EA/DP, request tank activities from the Shift RP technician when appropriate, (i.e., rupture of outside tank causing release to storm sewers).

8.10.6 Obtain a briefing from shift RP personnel.

8.10.7 As additional personnel arrive, assign to the positions tabulated on Attachment A.

8.10.8 As additional EA & DP personnel arrive, brief on the reason for activation, the status of any radioactivity releases, the status of the plant, pending requests for assessments, and the status of any protective action recommendations.

8.10.9 If needed, call out additional EA&DP team members.

8.11 Assume dose assessment duties

NOTE:	If the EA & DP Team assumes responsibility for dose assessments prior to activation of the TSC, the team operates as an extension of the onshift organization and reports to the SM, in his role as interim ED/ERM.

8.11.1 If the minimum equipment and personnel are available, notify the following that EA & DP has assumed responsibility for dose assessment activities.

8.11.1.1 Shift RP Date/Time _____ By _____

8.11.1.2 ED/ERM Date/Time _____ By _____

8.11.1.3 OSC Date/Time _____ By _____

8.11.1.4 TSC RCC Date/Time _____ By _____

8.11.2 IF the minimum required complement of equipment and personnel can NOT be met, THEN take reasonable, timely and appropriate actions to satisfy the unmet needs.

8.12 Determine need for assessment

8.12.1 IF a release of radioactivity is imminent, is in progress, or has occurred, THEN continue with this procedure.

8.12.2 IF a release has NOT occurred and is NOT imminent, THEN continue to monitor radiological and meteorological data and maintain communications until the TSC/EOF is deactivated, or until the status changes. Reduce EA & DP staffing to minimum complement, placing remaining personnel on a stand-by status.

8.13 If Liquid release has occurred, assess magnitude of release

8.13.1 IF ARERAS is available, THEN perform 1/2-EPP-IP-2.7.1 (ALIAS).

8.13.2 IF ARERAS is NOT available, THEN perform 1/2-EPP-IP-2.7.

8.13.3 Proceed to Step 8.16.

8.14 If Airborne release has occurred, assess magnitude of release A5.715ED

8.14.1 IF a SITE AREA or GENERAL EMERGENCY has been declared, THEN proceed to Step 8.15.

8.14.2 IF the magnitude of the release is expected to be comparable to an UNUSUAL EVENT or an ALERT, THEN:

8.14.2.1 IF ARERAS is available, THEN perform 1/2-HPP-3.06.012 (EAGER).

8.14.2.2 IF ARERAS is NOT available, THEN perform 1/2-HPP-3.06.013.

8.14.2.3 IF the results from the analysis indicates that the release constituted an UNUSUAL EVENT, THEN proceed to Step 8.16.

8.15 If imminent, ongoing, or terminated airborne release greater than Alert EAL, perform dose assessment

NOTE: The dose assessment method selection steps below are illustrated on Attachment C.

8.15.1 IF ARERAS is available, THEN perform the specified procedure(s) and proceed to Step 8.16.

8.15.1.1 IF meteorological data are NOT available, THEN perform 1/2-EPP-IP-2.6.5 and THEN perform 1/2-EPP-IP-2.6.4 (manual entry of Met and Rad).

8.15.1.2 IF isotopic data are available, THEN perform 1/2-EPP-IP-2.6.4 (manual entry of isotopic data).

8.15.1.3 IF the release is unmonitored OR has NOT started, THEN perform 1/2-EPP-IP-2.6.2 (FSAR default case).

8.15.1.4 IF the release is monitored AND ongoing, THEN:

NOTE: The intent of using GETRAD is to ensure that the current 15 minute average data represents the current release rate. IF the release started midway during an averaging period, the average for that period would underestimate the release.

8.15.1.4.1 Call up a display of the current radiation monitor data using the GETRAD task ("GR" from MIDAS menu).

8.15.1.4.2 Note the differences between the instantaneous readings and the average readings.

8.15.1.4.3 IF the average readings are comparable to the instantaneous readings, THEN perform 1/2-EPP-IP-2.6.3 (real-time Met and Rad).

8.15.1.4.4 IF the average readings are significantly less than the instantaneous values, THEN perform 1/2-EPP-IP-2.6.4 (Manual entry of Met and Rad).

8.15.1.5 IF the release has already been terminated, THEN perform 1/2-EPP-IP-2.6.4 (Manual entry of Met and Rad).

8.15.2 IF ARERAS is NOT available, THEN perform the specified procedure(s) and proceed to Step 8.16.

8.15.2.1 IF meteorological data are NOT available, THEN perform 1/2-EPP-IP-2.6.5 and proceed to the next Step (8.15.2.2).

8.15.2.2 IF isotopic data are available, THEN perform 1/2-EPP-IP-2.6.6.

8.15.2.3 IF the release is unmonitored OR has NOT started, THEN perform 1/2-EPP-IP-2.6.1 (FSAR default case).

8.15.2.4 IF the release is (was) monitored, THEN perform 1/2-EPP-IP-2.6.1 (monitored worksheet).

8.16 Determine need for emergency classification change

8.16.1 Compare the results of assessments against 1/2-EPP-I-1.

8.16.2 IF warranted, recommend classification escalation to ED/ERM.

Class: _____ Date/Time: _____ By: ____

Class: _____ Date/Time: _____ By: ____

8.17 Determine Protective Action Recommendations (PAR)

8.17.1 Compare the results of the dose assessments against the criteria of 1/2-EPP-IP-4.1.

8.17.2 Establish affected area(s) and initial PAR as provided in 1/2-EPP-IP-4.1.

PAR: _____

Rational: _____

Lead EA & DP Coordinator: _____ Date/Time: _____

NOTE:	The PAR provided by the EA & DP team shall be based on the results of dose assessments. The TSC provides a PAR based on plant condition. Nonetheless, it is appropriate for the EA & DP Coordinator(s) to participate in joint PAR discussions and to factor this discussion into the PAR developed by EA & DP.

8.17.3 Notify the ED/ERM of the necessary protective action.

8.18 Determine the need for and implement, as necessary, onsite and offsite monitoring

8.18.1 Compare the results of assessments, plant status and prognosis, and effluent monitor readings against the requirements of 1/2-EPP-IP-2.1.

8.18.2 IF required, THEN implement onsite and offsite monitoring as specified in 1/2-EPP-IP-2.1.

8.19 Request sampling and isotopic analysis

8.19.1 IF the release is ongoing, THEN issue a request to the TSC for sampling and isotopic analysis of release streams.

8.19.2 IF the release has been terminated or is imminent, THEN issue a request to the TSC for analysis data for the release source (e.g., RCS, SGTR, containment air, etc.).

8.19.2.1 IF analysis data are not available, THEN request sampling and isotopic analysis of the release source.

8.20 Communicate assessment results with Offsite Agencies

NOTE:	The communications addressed in this step supplement, rather than replace, the notifications made by the Communications and Records Coordinators. While the Follow-up Notifications Form in 1/2-EPP-IP-1.1.F03 should be used as a guide, the content of the communications may be tailored for the most efficient and accurate relay of data meeting the needs of the event.

NOTE:	When providing information to State representatives present in the EOF, ensure that they will be relaying the information back to their respective agencies. This precaution is particularly important with regard to messages related to start or stop of a release, or classification escalations.

NOTE:	Use Caution when reporting radioactivity releases, or the termination of such releases, to offsite agencies or other emergency response organizations. Generally, PLANNED RELEASES are NOT reported.

8.20.1 Gather additional assessment data for relay. Information should include, as appropriate:

8.20.1.1 Start and stop times of releases.

8.20.1.2 Bases and results of significant dose assessments.

8.20.1.3 Field monitoring results.

8.20.1.4 Emergency classification and reason.

8.20.1.5 Release stream data.

8.20.1.6 Incident history, current status, prognosis.

8.20.1.7 Meteorological data, including forecasts.

8.20.1.8 Current EA & DP actions.

8.20.2 Relay the information to the following agencies, either by telephone or by face-to-face communications in the EOF:

NOTE:	Current agency phone numbers can be found in Form 1/2-EPP/IP-1.1.F02.

8.20.2.1 DEP/Bureau of Radiation Protection, PA

8.20.2.2 Ohio Department of Health, OH

8.20.2.3 West Virginia Department of Health, WV

8.20.3 Log all communications in the EA & DP logbook. Include date, time, person contacted, in the log entries.

8.20.4 Continue communications for the duration of the response, reporting all significant changes in the data tabulated in steps 8.20.1.1 - 8.20.1.8.

8.20.4.1 Communications shall be made, at a minimum, every 30-40 minutes, regardless of the change in status. This frequency may be reduced as conditions stabilize.

8.21 If requested by the NRC, establish HPN communication link A5.715ED

NOTE:	Although 1/2-EPP-IP-1.4 provides NRC notification forms, these forms are intended to be illustrative, rather than mandatory. All communications on the HPN are initiated by the NRC. EA & DP provides data only upon specific request.

8.21.1 IF requested by the NRC, THEN perform the following:

8.21.1.1 Assign an EA & DP Coordinator to man the HPN link.

8.21.1.2 Implement the NRC/BVPS Technical Information Flow Attachment of 1/2-EPP-IP-1.4

8.21.1.3 Maintain the link open until directed otherwise by the NRC.

8.22 Obtain Meteorological Forecast

8.22.1 Call the GPIA National Weather Service Forecast office. (See Form 1/2-EPP-IP-1.1.F02 for telephone number).

8.22.2 Request a forecast for the next 24 hours.

Date/Time: _____ Forecast: _____

_____

_____

8.23 Compare dose assessments with field monitoring data

8.23.1 IF field monitoring data are not available, THEN bypass this step and return when data are available.

8.23.2 Compare the results from dose projections with the results obtained by the field monitoring teams.

NOTE:	Differences are expected between dose assessments and field monitoring data due to uncertainties in the dose assessment process. However, large differences should be evaluated and resolved, particularly if an upgrade in the PAR is indicated. Judgment is required as no reasonable quantitative criteria can be given.

8.23.3 Resolve any large discrepancies. Consider the following parameters:

8.23.3.1 Changes in meteorology parameters

8.23.3.2 Localized weather patterns A5.715ED

8.23.3.3 Error in source terms

8.23.3.4 Location of survey location versus plume centerline

8.23.3.5 Elevated release held aloft

8.23.4 IF differences between field monitoring and dose assessments indicate a consistent trend, THEN perform 1/2-EPP-IP-2.6.7.

8.24 Evaluate need for ground contamination assessments

8.24.1 IF any of the following conditions exist, THEN perform 1/2-EPP-IP-2.6.10:

8.24.1.1 Source of release is a fuel handling accident with rupture of fuel rods AND bypass of SLCRS filter banks.

8.24.1.2 SGTR with break above the water level, with S/G flooded (to steam lines), or with S/G dry.

8.24.1.3 Accident sequence results in core uncovery and breach or bypass of containment.

8.24.1.4 Projected noble gas release is sufficient to indicate offsite protective actions.

8.24.1.5 Field monitoring results indicate that the whole body dose rate at any location offsite (measured at waist height) due to ground contamination exceeds 0.02 millirem/hour (twice normal background).

8.24.1.6 Field airborne sample analyses indicate iodine concentrations greater than 1.0E-6 uCi/cc.

8.25 Perform Class B Model Assessment

8.25.1 IF EA & DP assessment workload permits AND IF the release is comparable to a General Emergency, THEN perform a "Class B Model, dose projection".

8.26 Evaluate need to upgrade PARS

NOTE:	The PAR provided by the EA & DP team shall be based on the results of dose assessments. The TSC provides a PAR based on plant condition. Nonetheless, it is appropriate for the EA & DP Coordinator(s) to participate in joint PAR discussions and to factor this discussion into the EA & DP PAR.

8.26.1 Compare the results of the dose assessments, field monitoring results, and ground contamination assessments, as applicable, against the criteria of 1/2-EPP-IP-4.1 and 1/2-EPP-IP-2.6.10.

8.26.2 IF a projected dose based on **field measurement** data is determined to be greater than 1 REM TEDE or 5 REM CDE at 10 miles, or beyond, THEN do the following:

8.26.2.1 Consult with NRC, DOE (as available) and appropriate State dose assessment personnel to determine if their models obtain similar dose projections.

8.26.2.2 Review the dose projections with State personnel.

8.26.2.3 If necessary, the evacuation area should be expanded in 5 mile increments such that the EPA PAG's are not expected to be exceeded outside the recommended radius (e.g., if PAG's are expected to be reached at 17 miles, the PAR would include 20 miles).

8.26.3 Identify those areas for which a PAR was not made, or for which the PAR does not provide an adequate level of protection.

Upgraded PAR: _____

_____

Rational: _____

Lead EA & DP Coordinator: _____ Date/Time: _____

Upgraded PAR: _____

_____

Lead EA & DP Coordinator: _____ Date/Time: _____

8.26.4 Notify the ED/ERM of the necessary upgraded protective action.

8.27 Identify the need for onsite personnel PARS

8.27.1 Compare dose assessment results against Habitability criteria for emergency facilities and Assembly Areas in 1/2-EPP-IP-1.5.

8.27.1.1 Notify the Radiological Controls Coordinator (RCC) in the TSC of the results.

8.27.1.2 Discuss with the RCC, the need for onsite protective actions.

8.28 Participate in briefings called by ED/ERM A5.715ED

8.28.1 When requested by ED/ERM, provide briefings to the TSC or EOF. Include the following in briefings:

8.28.1.1 Status of, or potential for, releases.

8.28.1.2 Results of significant dose assessments.

8.28.1.3 Field monitoring results.

8.28.1.4 Meteorological data, including forecasts.

8.28.1.5 Current and future EA & DP activities.

8.28.1.6 Unmet needs (e.g., equipment, data, personnel).

8.28.2 Remain alert to briefings and announcements made by others for possible impact to EA & DP activities.

8.29 Maintain status boards and logs

8.29.1 The Radcon circuit/dose assessor should continuously monitor the Radcon Circuit and log all reports significant to the EA & DP functions.

8.29.2 As MET and dose assessment data become available, or are updated, post in the designated location.

8.30 Provide liaison to Federal Radiological Monitoring and Assessment Center (FRMAC)

8.30.1 IF a General Emergency has been declared AND the FRMAC has been established THEN:

8.30.1.1 Request that the ED/ERM discuss, with the NRC's Director of Site Operations, the placement of an EA & DP liaison at the FRMAC.

8.30.1.2 IF the EA & DP liaison has been placed THEN:

8.30.1.2.1 Include the liaison in all communications required by Step 8.20.

8.30.1.2.2 Keep the liaison briefed with regard to EA & DP action, ongoing and planned.

8.30.1.2.3 Request that the liaison report significant actions and significant assessment results obtained by other groups represented at the FRMAC, (e.g., EPA, NRC, DER/BRP, etc.).

8.30.1.2.4 Direct the liaison to remain alert for the possibility for coordinating BVPS monitoring activities with those of other agencies and, if feasible, to serve as the link between the Monitoring Team Coordinator at the ERF and the FRMAC.

8.31 Establish shift organization

NOTE:	The lead EA & DP Coordinator must remain alert of the potential for a long term response, and when such a response is likely, to make provisions for around-the-clock coverage. This will generally mean that the EA & DP Coordinator should start to reduce the number of EA & DP personnel as soon as possible once the response is underway and when the incident prognosis provides a time window for doing so.

8.31.1 In conjunction with the Support Services Manager, develop a shift schedule for EA & DP personnel. Ensure adequate experience level and minimum complement on each shift.

8.31.2 In conjunction with the OSC, develop shift rotation schedules for field monitoring teams.

8.32 Perform turnover

8.32.1 At the end of each shift in a longer term response:

8.32.1.1 Each person in the EA & DP team shall brief their oncoming relief with the following information, as appropriate:

8.32.1.1.1 Status of, or potential for, releases.

8.32.1.1.2 Results of any significant dose assessments performed during the shift.

8.32.1.1.3 Significant field monitoring results obtained during the shift.

8.32.1.1.4 Current meteorological data and forecasts, and a summary of meteorological data during shift.

8.32.1.1.5 Significant EA & DP actions during the shift.

8.32.1.1.6 Any plant evolutions planned for the oncoming shift that may require EA & DP response.

8.32.1.1.7 Any unmet needs (e.g., equipment, data, personnel).

8.32.1.1.8 Any other special instructions deemed applicable. A5.715ED

8.32.1.2 The oncoming Environmental Coordinator shall ensure that the monitoring teams have been relieved and shall provide an initial briefing to the oncoming monitoring teams.

8.32.1.3 The lead EA & DP Coordinator shall notify the State liaisons present in the ERF of the shift change.

8.32.1.4 The lead EA & DP Coordinator shall report completion of turnover activities to the ED/ERM.

8.33 Re-evaluate need for BVPS field monitoring teams

NOTE:	The primary objective of the deployment of the BVPS Field Monitoring Teams is to obtain data that support the PAR decision process during that period prior to deployment of State and Federal Monitoring Teams. Once State and Federal monitoring teams and resources are deployed, the objective of the BVPS Monitoring Teams is to gather sufficient data for use in performing post-incident consequence assessments.

8.33.1 IF radioactivity releases have been terminated AND the plume has cleared the plume exposure EPZ (10 miles) AND the potential for additional releases exceeding technical specifications is low THEN:

8.33.1.1 Evaluate whether or not the field monitoring data collected are adequate to meet the objectives of field monitoring specified above.

8.33.1.2 Discuss with the ED/ERM the justification for ceasing BVPS field monitoring.

8.33.1.3 Discuss with the State liaisons, and with the NRC Director of Site Operations, if present, the proposed termination of BVPS field monitoring activities.

8.33.1.4 IF all parties are in agreement, THEN:

8.33.1.4.1 Direct the Field Monitoring Teams to return to the Site.

8.33.1.4.2 Relieve EA & DP team members associated with monitoring team activities.

8.34 Establish Emergency Environmental Program

8.34.1 IF there has been a release of radioactivity exceeding Alert Emergency EAL levels AND if the plant condition has been stabilized THEN:

8.34.1.1 Arrange for the designated Environmental Coordinator(s) to be relieved from their EA & DP assignments.

8.34.1.2 Direct these individuals to establish and implement an environmental monitoring plan using 1/2-EPP-IP-2.5.

NOTE:	Pending personnel availability, the Environmental Coordinator should assume the role of FRMAC liaison as the emergency response shifts from response phase to recovery/assessment phase.

8.34.1.3 Notify the ED/ERM that the organization change has taken place.

8.35 Assess dose based on environmental samples

8.35.1 As deemed appropriate or necessary, implement 1/2-EPP-IP-2.6.8.

8.36 Perform dose integration

NOTE:	Dose Integration is not considered to be an emergency response activity, and will likely not be performed until much later during the recovery phase.

8.36.1 IF there has been a release of radioactivity exceeding Alert Emergency EAL levels and releases have been terminated AND the potential for subsequent releases are small THEN:

8.36.1.1 Gather data relevant to the release (e.g., source term, duration, start and stop, flow rate, etc.).

8.36.2 IF ARERAS is available, THEN request Effluent Controls personnel prepare for and perform an analysis of the release consequences using:

NOTE:	It would be appropriate to modify the site adaptation database for the following codes to place emphasis on receptors within the plume footprint. Since this may be time consuming, initial evaluations should be population, rather than individual receptor, assessments.

8.36.2.1 GASPRI/GASPRO for gaseous releases.

8.36.2.2 DOSLI for liquid releases.

8.36.3 IF ARERAS is NOT available, THEN request Effluent Controls personnel perform an assessment using the ODCM methodology.

8.36.4 IF, in the judgment of the lead EA & DP Coordinator and the Environmental Coordinator, the results of environmental samples indicates a potential underestimation of dose by GASPRI/GASPRO/DOSLI, implement 1/2-EPP-IP-2.6.8 and 1/2-EPP-IP-2.6.9.

8.37 Deactivate the EA & DP Team

NOTE:	In any emergency response involving a significant radioactivity release, EA & DP functions may be performed over several days or weeks. In these cases, the EA & DP Team may be reduced in size as necessary functions come to closure, and when it is determined that no discrete de-activation may occur.

8.37.1 IF the ED/ERM has terminated the emergency, THEN proceed to Step 8.38.

8.38 Final Conditions

8.38.1 All EA & DP equipment/material has been returned to the emergency cabinets.

8.38.2 All worksheets, logs, completed procedures, etc., have been forwarded to the Communications and Records Coordinator.

8.38.3 Corrective actions have been initiated for failed equipment.

8.38.4 Procedure Complete:

8.38.4.1 Lead EA & DP Coordinator: _____

8.38.4.2 Date: _____

8.38.4.3 Time: _____

INTENTIONALLY BLANK

ATTACHMENT A
Page 1 of 1
EA & DP TEAM MEMBERS

A5.715EF

NOTE:	Functional positions are filled as needed and with the protection of public health and safety the foremost consideration. As personnel arrive during the first two hours of an event, those functions which most directly support the ED/ERM in making PAR decisions will receive priority. Minimum resources include a qualified individual have access to plant conditions/radiological data, the means to estimate off-site radiation dose and a communications link to the ED/ERM. Other functional positions listed are filled (or performed) as additional EA & DP personnel arrive (or as able) without interfering with PAR support.

Radcon Circuit/Dose Assessor

Normally filled by the first EA & DP individual arriving in the EOF. If a designated Coordinator, he/she should be relieved by the first arriving Assistant. *Primary function: Monitor plant radiological conditions, perform dose assessment. Assist ED/ERM in PAR decision until a Lead Coordinator is available.*

EA & DP Coordinator

Normally filled upon arrival of the second EA & DP individual. This position will be filled by the designated Coordinator after being relieved of Radcon Circuit/Dose Assessor duty (if he/she was the first to arrive), or upon his/her arrival (if an assistant arrived first and is performing Radcon Circuit/Dose Assessor duty.) *Primary function: Assist ED/ERM in PAR decision and coordinate EA & DP team efforts.*

Environmental Coordinator

This function is normally taken from the Control room by the third arriving individual. This position is necessary only if off-site monitoring teams are dispatched in accordance with 1/2-EPP-IP-2.1, "Emergency Radiological Monitoring". *Primary function: Direct and advise the off-site monitoring teams and provide results to the EA&DP Coordinator for use in PAR advisement.*

EA & DP Communicator

Normally filled by the fourth arriving individual. *Primary Function: Communicate with other on-site and off-site organizations. This individual may also man the Emergency Telephone System phones for contacting the NRC/HPN if requested by the NRC.*

Other individuals from the EA & DP organization may be contacted and requested to report to the EOF, as deemed necessary by the Lead Coordinator. The Lead Coordinator should ensure that an adequate number of personnel are available for relief should emergency conditions exist for an extended period.

INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 2
EA & DP EQUIPMENT CHECKLIST

A5.715EG

* 1. _____ Radcon Circuit

1.1 Operable if communication check (at minimum to the Control Room) is ok.

* 2. _____ Hand calculators (at least 1)

* 3. _____ Copy of E-Plan and Implementing Procedures

* 4. _____ Binders of blank EA & DP Forms

5. _____ At least one PAX line with outside dialing.

5.1 Operable if dial-tone available after pressing 9 and 1.

6. _____ Ring-down phone to OSC

6.1 Operable if communications (with at least the OSC) is available.

(1) 7. _____ ARERAS capable computer

7.1 Energize computer login to EADP.
7.2 Operability is ability to login.
7.3 Notify ARERAS System Manager if inoperable.

8. _____ ARERAS Printer

8.1 Energize printer.
8.2 Operability is ability to provide readable copies of computer screen.
8.3 Notify ARERAS System Manager if inoperable.

(2) 9. _____ Industrial Radio

9.1 Energize and place into PL3.
9.2 Verify operability during radio checks with Field Monitoring Teams.

ATTACHMENT B
Page 2 of 2
A5.715EG
EA & DP EQUIPMENT CHECKLIST

(2) 10. _____ Cell Phone

10.1 Verify availability of at least two.
10.2 Verify operability with FMT prior to FMT leaving site.

11. _____ NRC HPN Phone

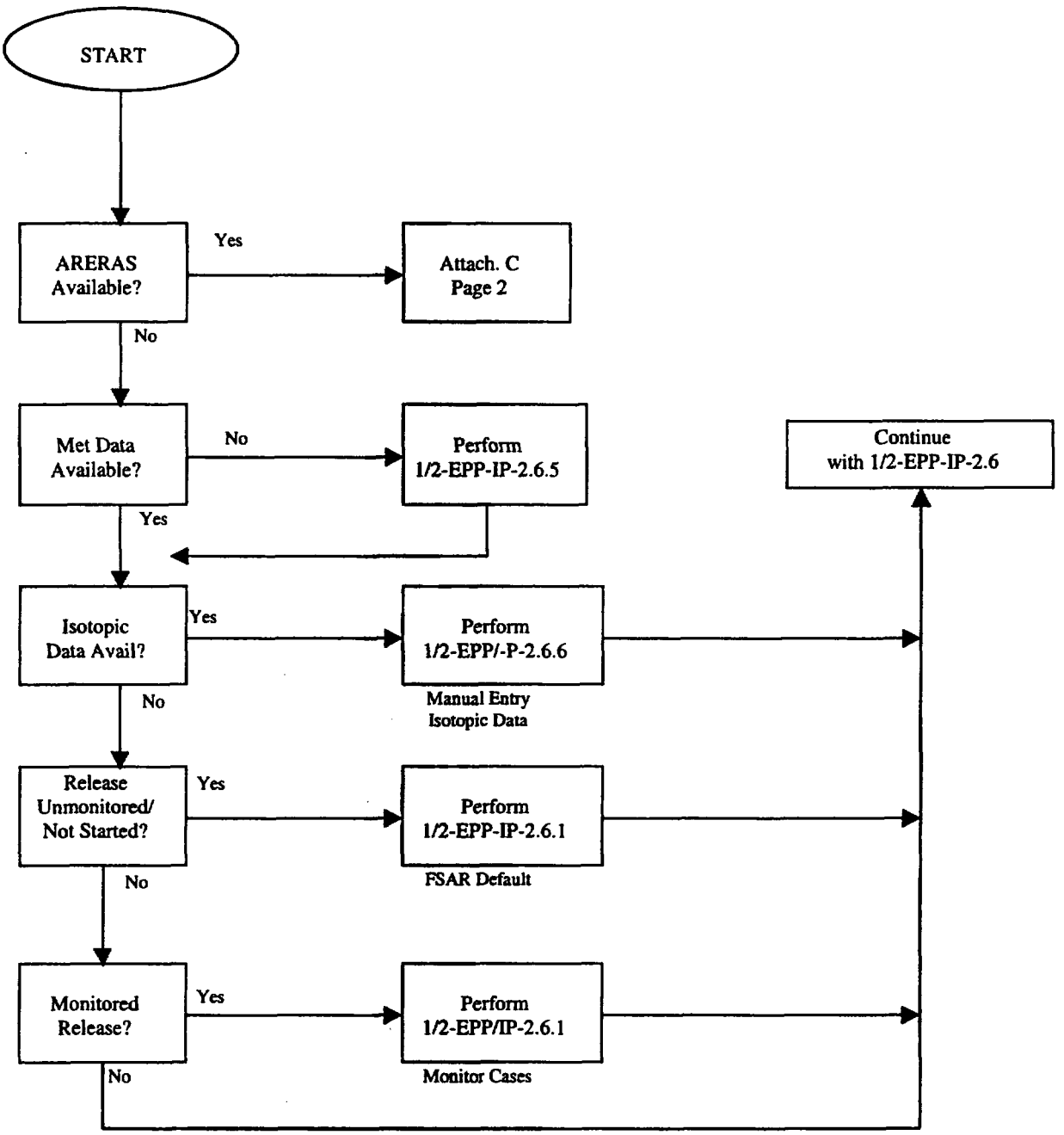
11.1 Install headset on phone.
11.2 Operable IF dial-tone available.
11.3 Leave phone on-hook until activation is requested by NRC.

12. _____ Miscellaneous office supplies

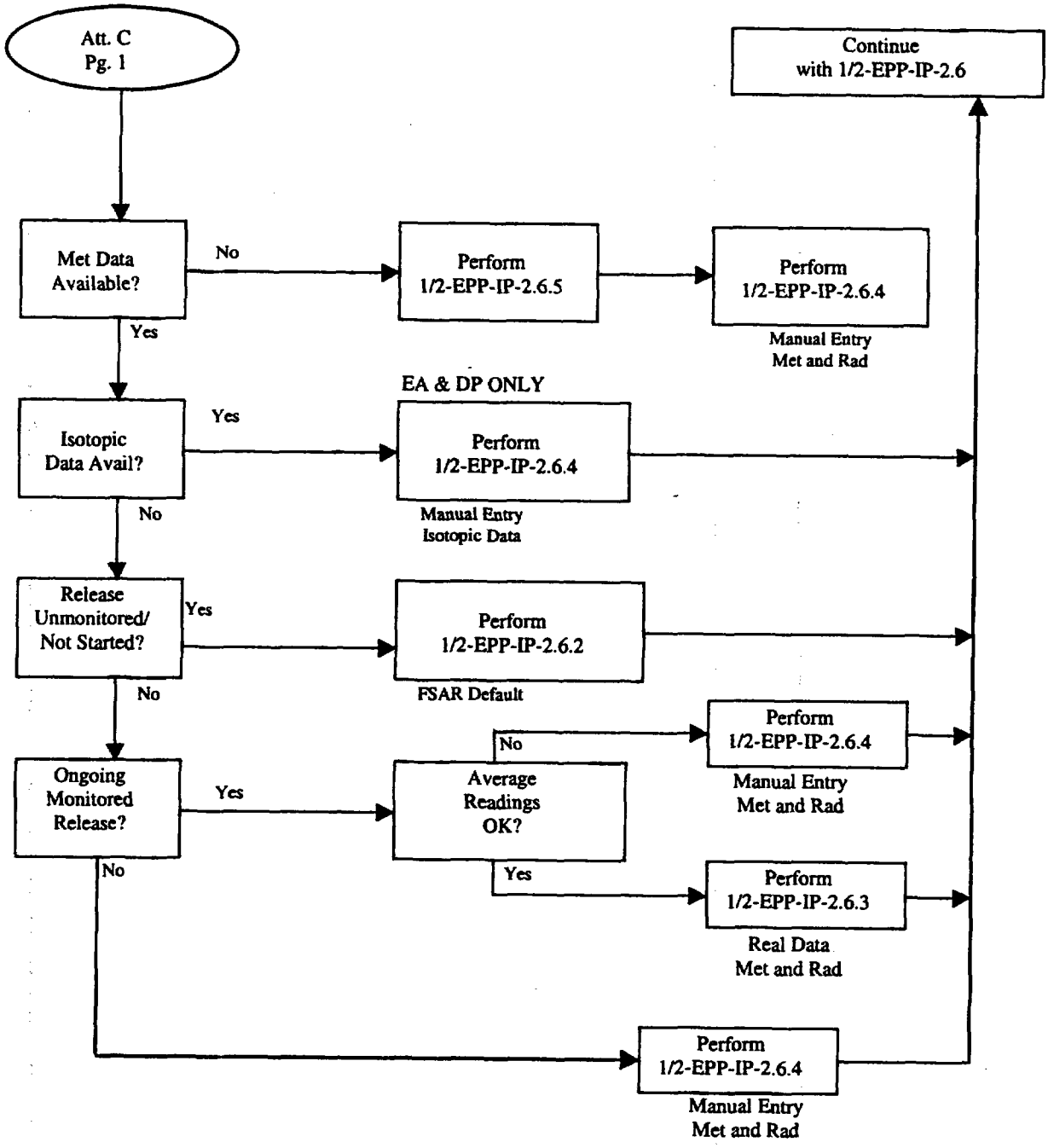
* = Minimum Required
(1) = If the Control Room RP technician has an operable ARERAS capable computer AND there is no operable computer in the EOF, the technician should perform all dose projections with EA&DP guidance.

(2) = Required if radioactivity release is imminent, ongoing, or terminated and prior to EA & DP taking control of the off-site monitoring teams from the Control Room.

ATTACHMENT C
Page 1 of 2
ASSESSMENT METHOD SELECTION CHART



ATTACHMENT C
Page 2 of 2
ASSESSMENT METHOD SELECTION CHART



ATTACHMENT D
Page 1 of 1
TERMINATION OF RADIOACTIVITY RELEASES DURING EMERGENCIES

TERMINATION OF UNPLANNED RELEASES

Generally, an UNPLANNED RELEASE is considered terminated when the conditions that caused it to be declared as a release, cease to exist.

a. For monitored UNPLANNED RELEASES, effluent monitor alarms have cleared AND the valid readings have returned to levels consistent with pre-event readings, or,

b. For UNPLANNED RELEASES from the containment (1) containment pressure has returned to subatmospheric, OR (2) containment isolation has been restored with pressures near or below atmospheric. Equalization of containment pressure with atmospheric pressure without isolation DOES NOT terminate the release, or,

c. For UNPLANNED RELEASES from main steam relief valves during SGTRS, the release can be considered terminated if (1) the valves are shut, AND (2) RCS pressure is stable, trending downward, and is less than lowest valve setting (1075 psi), or,

d. When the radioactivity inventory in the release source has been dissipated, or,

e. When there is no longer a viable release path (i.e., release isolated), or driving force for the release.

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-2.6.5

ALTERNATE METEOROLOGICAL PARAMETERS

Document Owner
Manager, Emergency Preparedness

Revision Number	11
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 1

4.1 Records 1
4.2 Forms 2

5.0 RESPONSIBILITIES 2

5.1 Radiation Protection (RP) Technician/EA&DP Personnel 2

6.0 PRECAUTIONS AND LIMITATIONS 2

6.1 Precautions 2
6.2 Limitations 2

7.0 PREREQUISITES 2

8.0 PROCEDURE 2

ATTACHMENT A PLUME WIDTH VS DISTANCE 9
ATTACHMENT B PLUME HEIGHT VS DISTANCE 11
ATTACHMENT C TRANSIT TIME VS WIND SPEED 13
ATTACHMENT D WIND DIRECTION VS TIME OF DAY 15
ATTACHMENT E STABILITY CLASS VS HOUR 17
ATTACHMENT F WIND SPEED VS HOUR 19
ATTACHMENT G TEMPERATURE VS MONTH 21

1.0 PURPOSE

1.1 This procedure provides instruction for obtaining and adapting alternate meteorological data for dose projection and protective action purposes in the event that these data are not available through ARERAS.

2.0 SCOPE

2.1 This procedure shall be performed whenever the following conditions are present:

2.1.1 Dose projections are required to be performed in accordance with one or more dose projection procedures, AND,

2.1.2 Meteorological data are not available on ARERAS.

2.2 The graphs attached to this procedure may be used in conjunction with any dose projections performed using hand procedures in order to obtain estimates of plume transit time, plume width, or plume height.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Ms. T.R. Drake, National Weather Service Forecast Office, Pittsburgh, PA, private communication documented in LTR ND3SHP:996.

3.1.2 USNRC, Meteorological Measurements Program for Nuclear Power Plants, RG 1.23, Revision 0 1972

3.1.3 DLC, Derivation of Numeric Data Used in EPP/IP-2.6.5. ERS-SFL-90-025, Revision 0, 1990.

3.1.4 Condition Reports

- 982130.

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 None

5.0 RESPONSIBILITIES

5.1 Radiation Protection (RP) Technicians/EA&DP Personnel

5.1.1 This procedure is to be performed by designated shift Radiation Protection (RP) Technicians prior to activation of the TSC, and by designated Environmental Assessment and Dose Projection (EA & DP) personnel upon activation of the TSC.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 The wind direction is always specified in terms of the direction FROM which the wind is coming (upwind), unless otherwise indicated.

6.1.2 All calculations performed in this procedure shall be checked by another person prior to use in dose projections or protective action recommendations.

6.1.3 This procedure is organized to utilize the most readily available data sources first. These sources are not necessarily the most representative sources. Once initial dose projections have been completed and necessary protective action recommendations have been made, efforts shall be made to obtain the better data and to update the early dose projections.

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 Dose projections are required in accordance with one or more dose projection procedures AND meteorological data is not available on ARERAS.

8.0 PROCEDURE

8.1 IF meteorological data are not available from ARERAS due to a failure of a particular ARERAS capable computer, THEN proceed to another ARERAS capable computer and attempt to obtain meteorological data and perform dose projections.

8.1.1 IF successful, THEN terminate this procedure.

8.1.2 IF unsuccessful, THEN continue with this procedure.

8.2 Complete the following information:

8.2.1 Procedure Start Date: _____

8.2.2 Procedure Start Time: _____

8.3 IF initial dose projections have been made OR if initial protective actions have been implemented, THEN proceed to Step 8.9.

8.4 Call the National Weather Service Forecast Office at 1-412-262-1882.

8.4.1 IF the National Weather Service cannot be contacted, THEN proceed to Step 8.7.

8.4.2 Request the most recent observations of the following data:

8.4.2.1 Surface (ground level) wind speed: _____ mph.

8.4.2.2 Surface (ground level wind direction: _____ deg.

8.4.2.3 Surface (ambient) temperature: _____ deg.F

8.4.2.4 Time of observation: _____

8.4.2.5 Name of NWS contact: _____

8.5 Circle the stability class, delta-T, and wind speed correction appropriate for the time of day from the selections below:

NOTE:	The sky observations specified below are intended to be approximate and if intensive efforts, or exposure to the plume would be required, assume D stability.

8.5.1 IF time is between 0700 - 1900 AND the sky is clear or partly cloudy THEN:

Stability Class	=	ABC
Delta-T	=	-1.2
Wind Speed Corr.	=	0.5

8.5.2 IF time is between 0700 - 1900 AND the sky is overcast; or observations cannot be made THEN:

Stability Class	=	D
Delta-T	=	-0.8
Wind Speed Corr.	=	0.4

8.5.3 IF time is between 1900 - 0700 THEN:

Stability Class	=	FG
Delta-T	=	1.1
Wind Speed Corr.	=	0.3

8.6 Adjust the NWS wind speed data as follows:

8.6.1 The wind speed reported by the NWS can be used without correction in MIDAS as the elevated wind speed (release point 3 in Unit 1). Enter the wind speed obtained in Step 8.4.2.1 in the block below:

Elevated Wind Speed: [mph]

8.6.2 Multiply the wind speed above by the wind speed correction appropriate for the stability class determined in Step 8.5. The result is the ground level wind speed.

Stability	WS Corr
ABC	0.5
D	0.4
E, FG	0.3

X [mph] = [GROUND LEVEL WS mph]

NOTE: If data are to be manually input to MIDAS and more than one release point is active, the user may be prompted for meteorological data more than once. For initial dose projections, assume that the data derived above are applicable to all release points.

8.7 IF the National Weather Service cannot be readily contacted, THEN perform the following:

8.7.1 For delta-T and stability class, use the default data in Step 8.5.

8.7.2 For wind speed, use 4.0 mph during daylight (0700-1900) and 2.0 mph at other times.

8.7.3 For wind direction, use any value.

NOTE: Protective Action Recommendations under these circumstances shall involve all radial sectors until such time as actual wind direction data are available.

8.7.4 Add a remark on all worksheets to indicate that the data are based on default values.

8.8 Complete Step 8.14, Final Conditions, in this procedure and perform 1/2-EPP-IP-2.6.1 or 1/2-EPP-IP-2.6.4, as appropriate.

8.9 IF some, but NOT all, meteorological data are available on ARERAS, THEN proceed to Step 8.12.

8.10 Attempt to obtain meteorological data from the meteorological shelter.

NOTE: Under the various conditions, meteorological data collection may be temporarily halted and then automatically restored at the start of the next averaging period. If the data outage has been less than one 15-minute averaging period, this situation may be occurring. New 15-minute average data are available at approximately 10, 25, 40, and 55 minutes after the hour.

8.10.1 Report the condition to RP.

8.10.2 If offsite radiological conditions permit, dispatch an individual to the meteorological shelter to determine the status of meteorological instrumentation and to relay meteorological data back to the TSC.

8.10.2.1 Arrange for shelter access with Security.

8.10.3 If meteorological data are available at the shelter, periodically request the data from the shelter (PAX #5977).

8.10.3.1 Complete Step 8.14, Final Conditions, in this procedure once normal meteorological data are restored OR if the emergency is terminated.

8.10.4 IF some, but not all, meteorological data are available at the shelter, THEN proceed to Step 8.12.

8.10.5 IF the individual reports that the shelter instrumentation is not working, THEN notify the TSC and request I&C support. Continue with this procedure.

8.11 IF the Nuclear Regulatory Commission Site Team is onsite, THEN have the Emergency/Recovery Manager request the assistance of the NRC Director of Site Operations (DSO) in obtaining National Weather Service support in obtaining meteorological measurements onsite.

8.12 IF some of the ARERAS meteorological parameters are available, OR IF data from other sources becomes available, THEN the following steps may be useful in obtaining sufficient data for performing dose projections. Perform only those steps necessary.

8.12.1 IF the wind speed at 150' or 500' is available, but the ground wind speed is not, THEN a representative value can be obtained using the following:

_____ WS 150	X	Stability	WS Corr	=	GROUND LEVEL WS _____ mph
		ABC	0.7		
		D	0.6		
		E, FG	0.5		

_____ / WS 500 X

Stability	WS Corr
ABC	0.5
D	0.4
E, FG	0.3

= GROUND LEVEL WS _____ mph

8.12.2 IF the wind speed at 35' or 150' is available, but the elevated wind speed is not, THEN a representative value can be obtained using the following:

_____ / WS 35 X

Stability	WS Corr
ABC	1.9
D	2.4
E, FG	3.8

= GROUND LEVEL WS _____ mph

_____ / WS 150 X

Stability	WS Corr
ABC	1.3
D	1.5
E, FG	1.8

= GROUND LEVEL WS _____ mph

8.12.3 IF a value of wind speed is obtained from an offsite source, it can be adjusted (based on its mean sea elevation in feet) to represent either the ground level or elevated wind speed at BVPS using the following formula:

Ground Level Wind Speed =

(765/Measurement Altitude) ^{P} x (Speed at Measurement Altitude)

Where: The exponent "p" is as stated in the procedure, the altitude is referenced to sea level, and the speeds are in units of miles per hour.

Stability	EXPONENT "p"
ABC	0.25
D	0.33
E, FG	0.50

8.12.3.1 If the value of the elevated wind speed is desired instead, substitute 1230' for 765 in the expression above, and solve as before.

8.12.4 IF one or both Delta-T values are unavailable, THEN the stability class can be determined using the other Delta-T parameter, if available, or from wind direction standard deviation data using the conversion table below.

8.12.4.1 The wind direction standard deviation can be obtained from ARERAS using the METDATA routine, or by calling the GM task from the MIDAS menu. Historical data can be obtained using the MA task from the MIDAS menu.

Stability Class	Delta-T1 (150-35) DegF/115'	Delta-T2 (500-35) DegF/465'	Wind Dir. Std Dev Deg	Generic DegC/100m
A	<-1.20	<-4.85	>22.5	<-1.9
B	<-1.07	<-4.34	>17.5	<-1.7
C	<-0.95	<-3.83	>12.5	<-1.5
D	<-0.32	<-1.27	>7.5	<-0.5
E	<+0.95	<+3.83>	3.75	<+1.5
F	<+2.52	<+10.20	>2.1	<+4.0
G	>+2.52	>+10.20	<2.1	>+4.0

NOTE: Attachments D through G provide plots of meteorological parameters versus time based on data collected at BVPS in 1988 and 1989.

8.13 Complete Step 8.14, Final Conditions, in this procedure once normal meteorological data are restored OR if the emergency is terminated.

8.14 Final Conditions

8.14.1 The emergency has been terminated or normal site meteorological data is restored.

- OR -

Another copy of this procedure is initiated in order to obtain and/or adapt an additional set of data.

8.14.2 The original copy of this completed procedure shall be forwarded to the EA & DP Coordinator in the TSC/EOF, and then upon termination of the emergency, to the Communications and Records Coordinator.

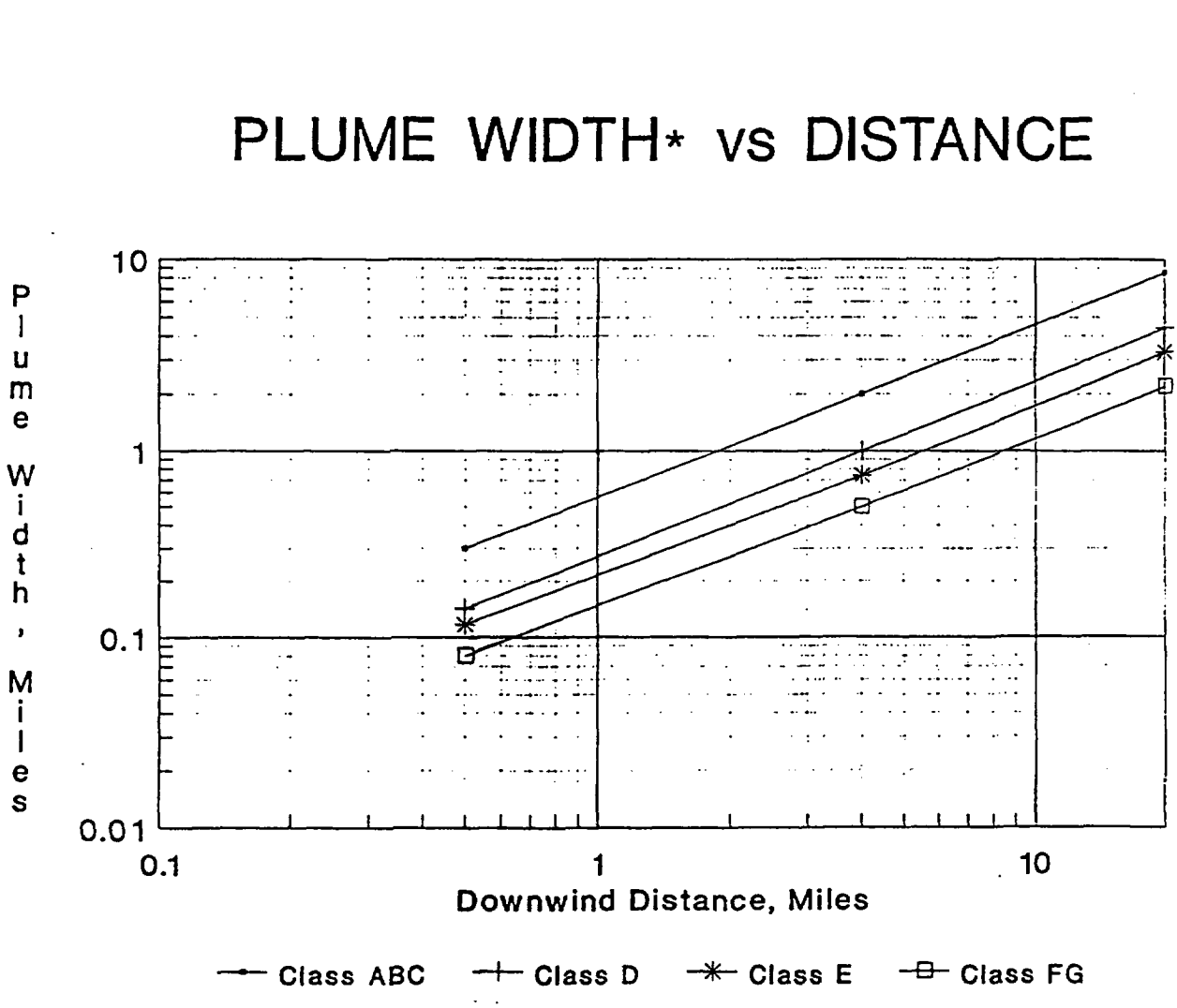
8.14.3 Procedure Complete

8.14.3.1 Date/Time: _____

8.14.3.2 By: _____

INTENTIONALLY BLANK

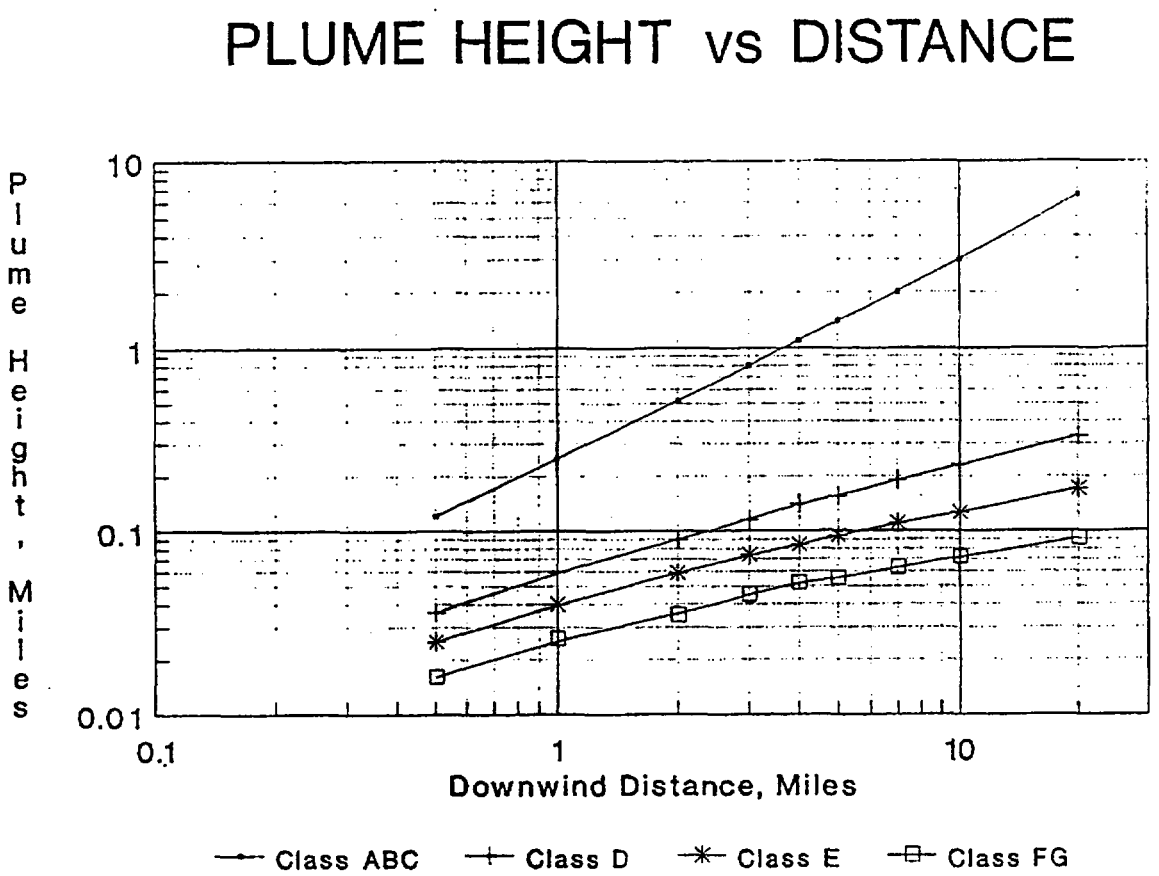
ATTACHMENT A
Page 1 of 1
PLUME WIDTH VS DISTANCE



*Full width

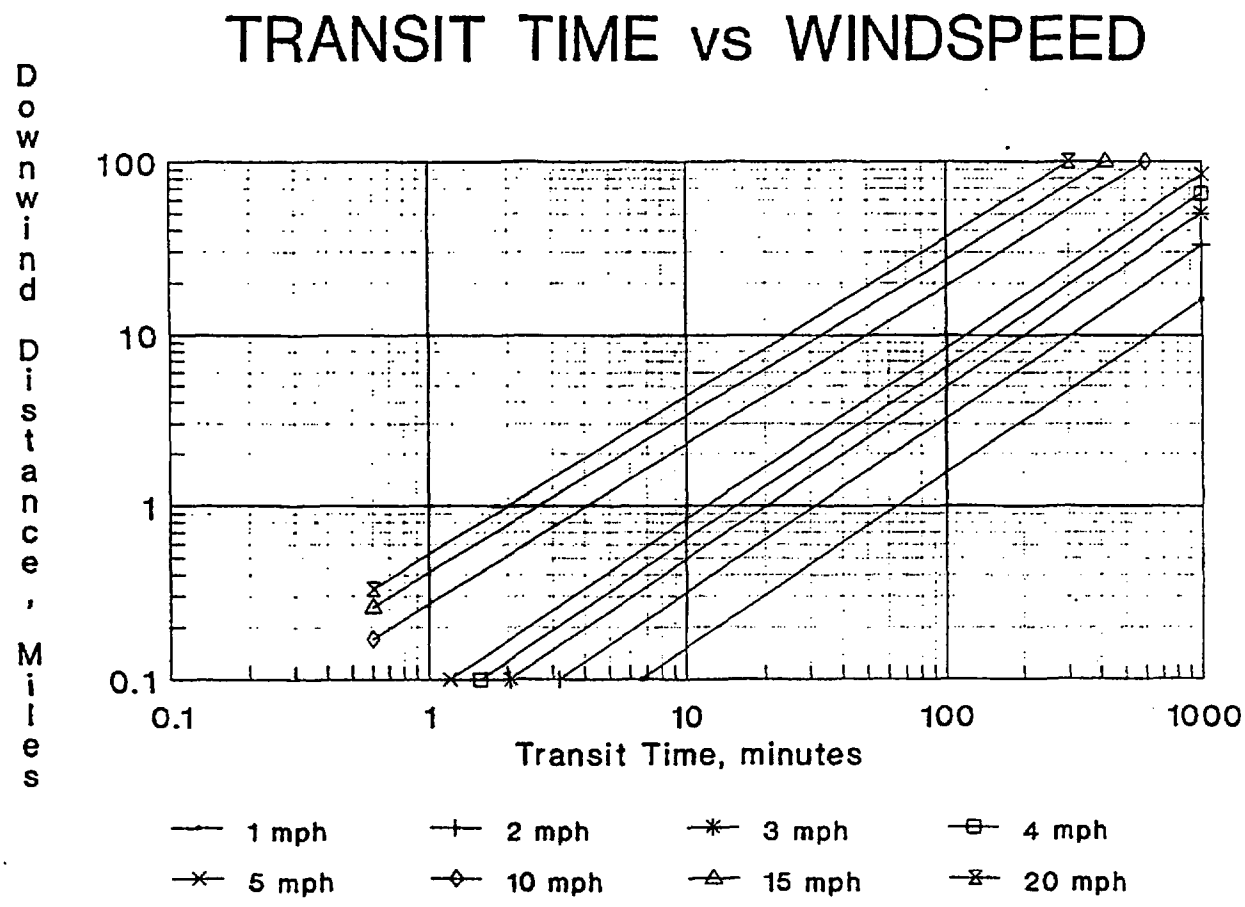
INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 1
PLUME HEIGHT VS DISTANCE



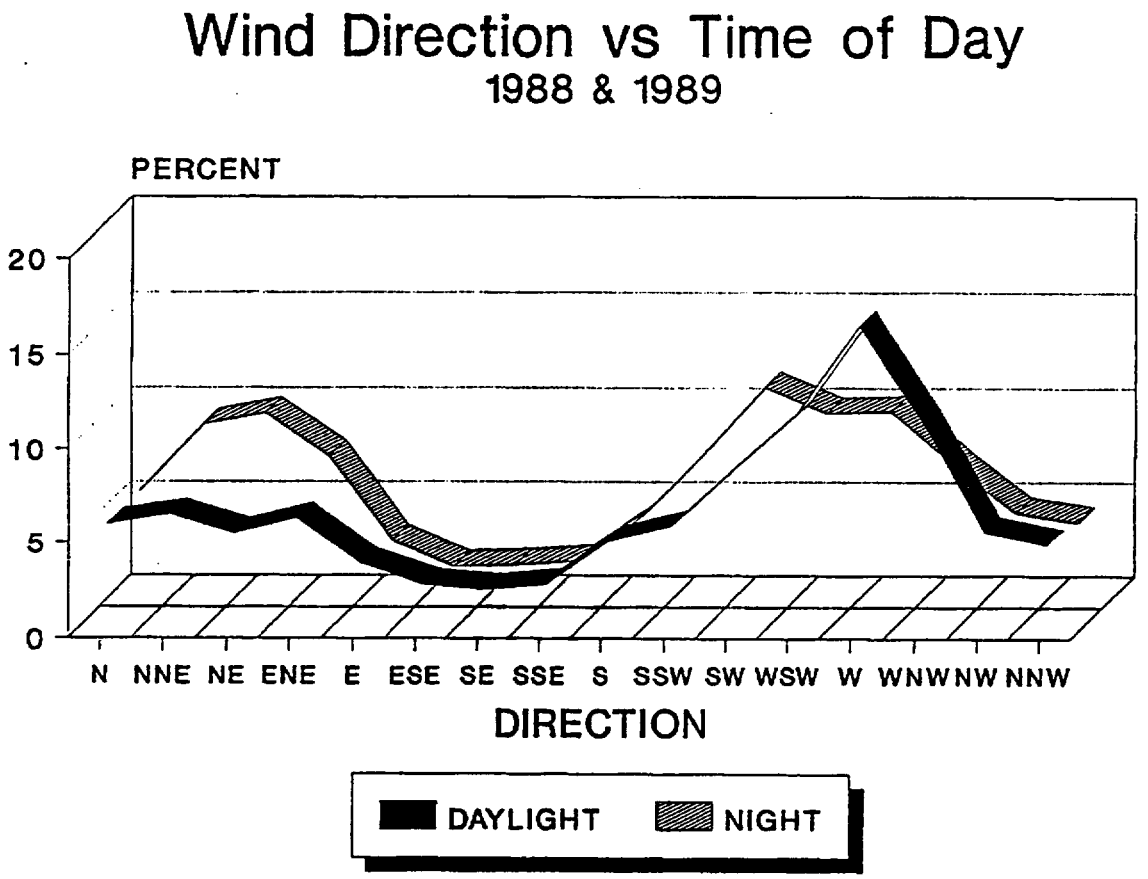
INTENTIONALLY BLANK

ATTACHMENT C
Page 1 of 1
TRANSIT TIME VS WIND SPEED



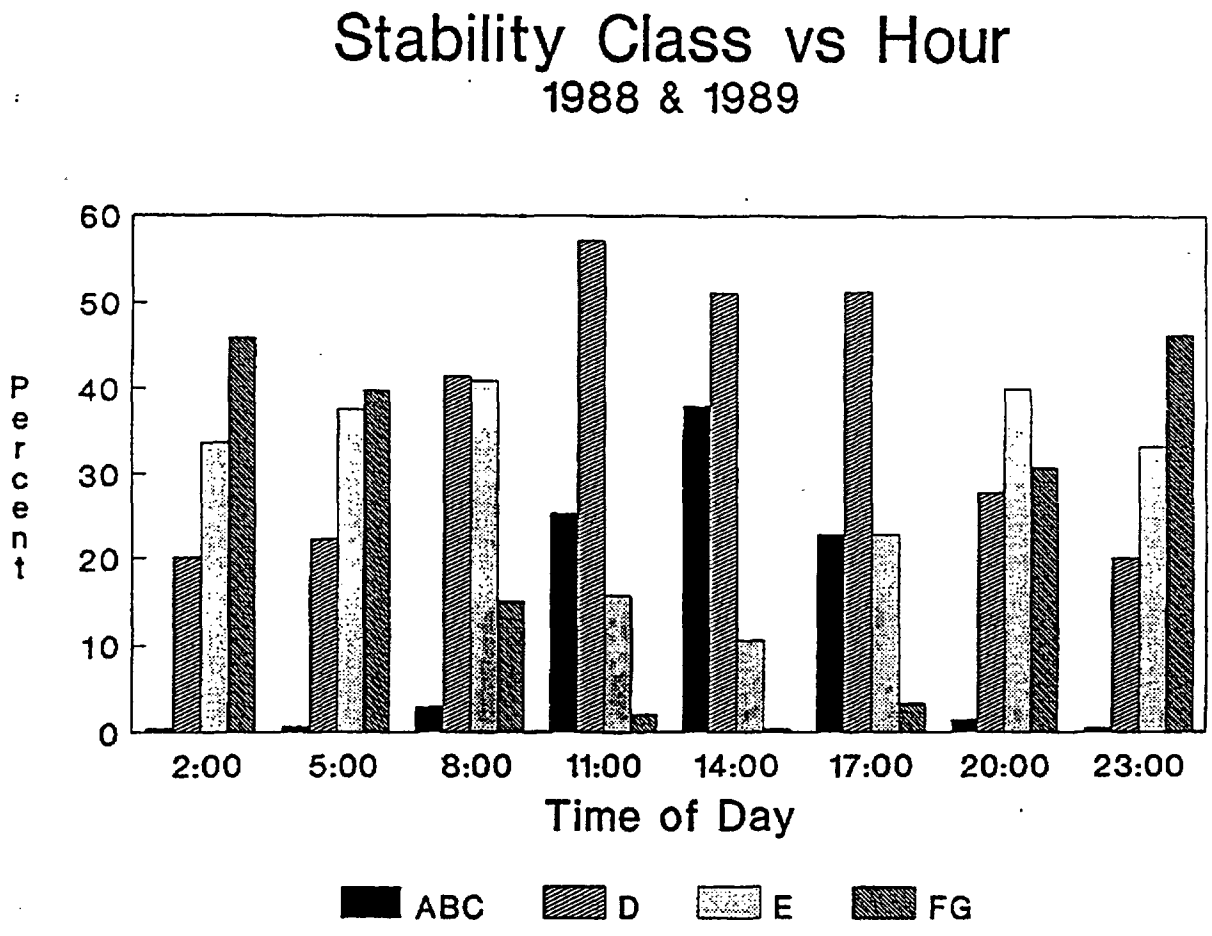
INTENTIONALLY BLANK

ATTACHMENT D
Page 1 of 1
WIND DIRECTION VS TIME OF DAY



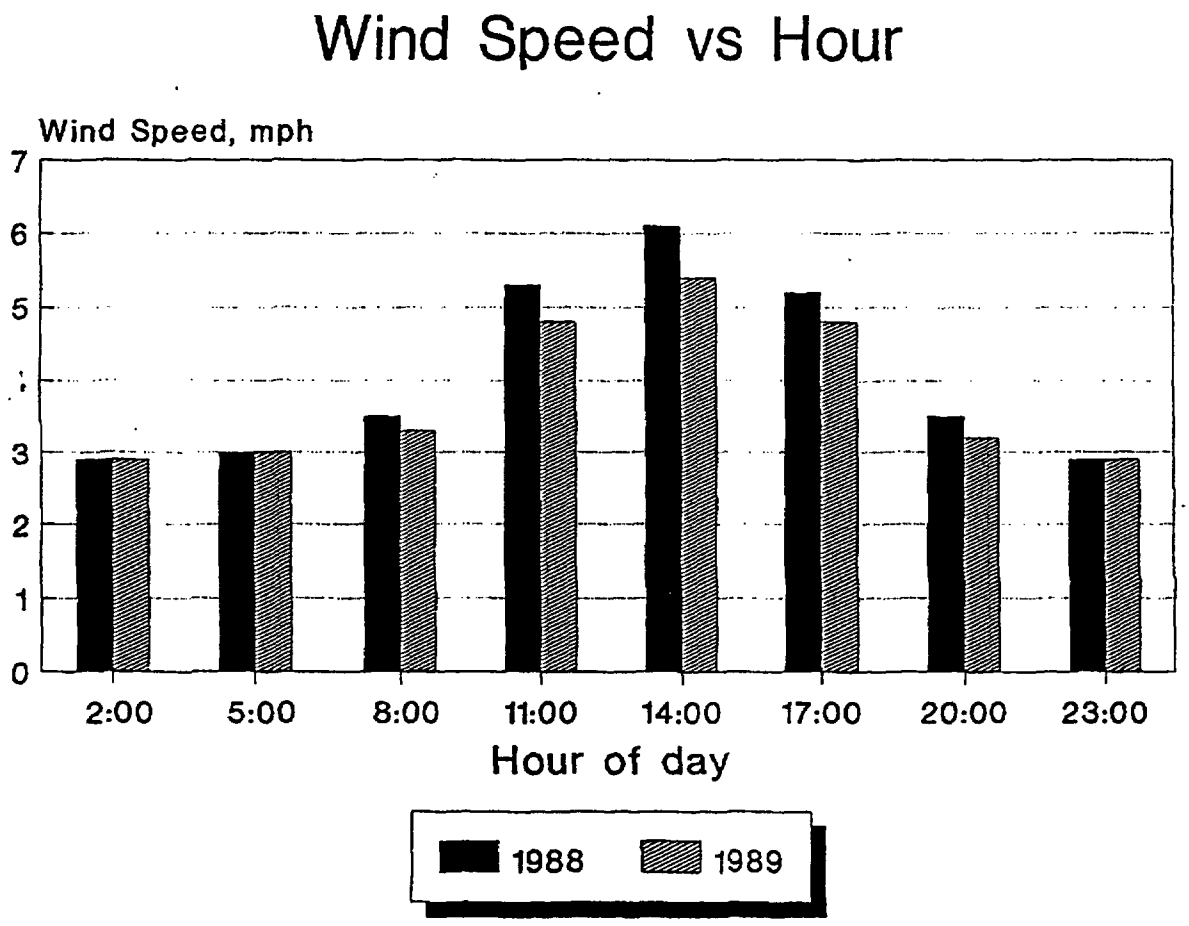
INTENTIONALLY BLANK

ATTACHMENT E
Page 1 of 1
STABILITY CLASS VS HOUR



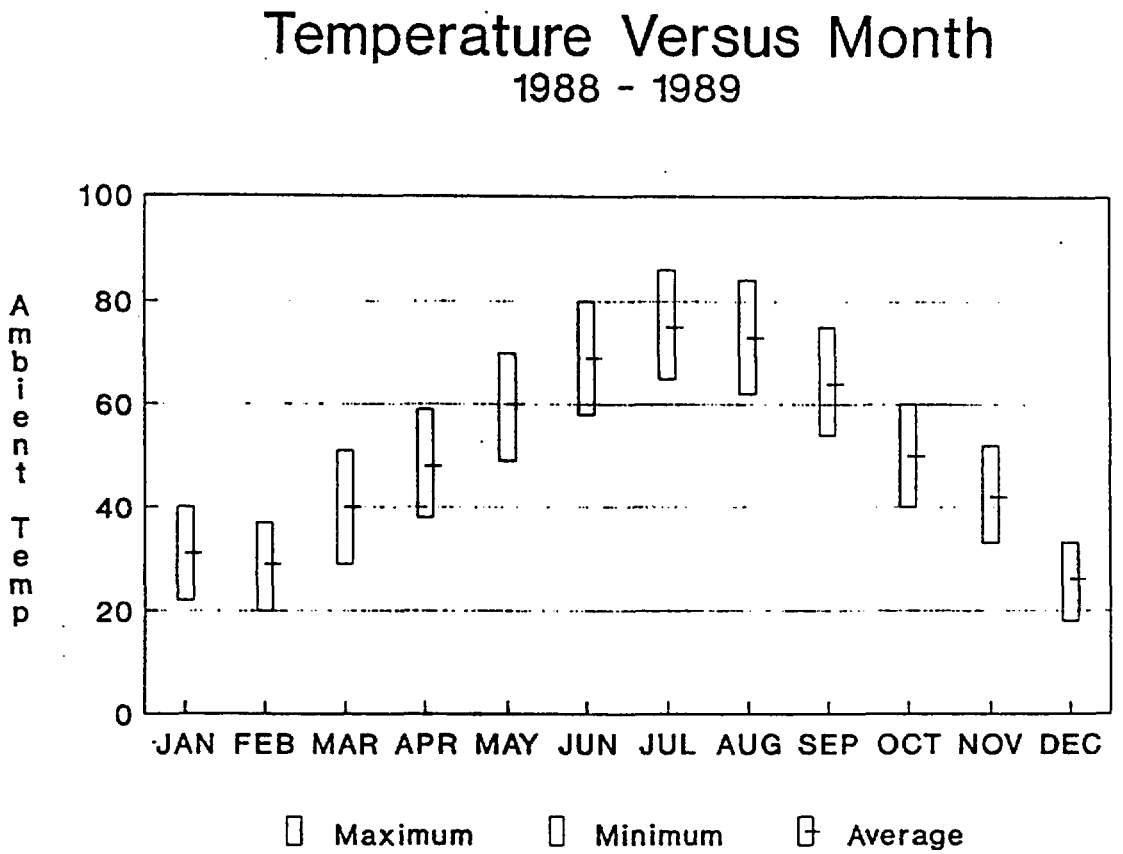
INTENTIONALLY BLANK

ATTACHMENT F
Page 1 of 1
WIND SPEED VS HOUR



INTENTIONALLY BLANK

ATTACHMENT G
Page 1 of 1
TEMPERATURE VS MONTH



from NOAA Local Climatological Data

INTENTIONALLY BLANK

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-2.6.6

DOSE PROJECTION BY HAND CALCULATION KNOWN ISOTOPIC RELEASE

Document Owner
Manager, Emergency Preparedness

Revision Number	7
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1
- 3.1 References 1
- 3.2 Commitments 1

4.0 RECORDS AND FORMS 1
- 4.1 Records 1
- 4.2 Forms 1

5.0 RESPONSIBILITIES 1
- 5.1 Environmental Assessment and Dose Projection Personnel (EA & DP) 1

6.0 PRECAUTIONS AND LIMITATIONS 2
- 6.1 Precautions 2
- 6.2 Limitations 2

7.0 PREREQUISITES 2

8.0 PROCEDURE 3
- 8.1 Preliminary Actions 3
- 8.2 Isotopic Concentration, Worksheet 2.6.6-1 5
- 8.3 Isotopic Activity, Worksheet 2.6.6-2 6
- 8.4 Adjustments for Steam Generator Releases 8
- 8.5 Final Conditions 11

ATTACHMENT A WORKSHEET 2.6.6-1 - ISOTOPIC CONCENTRATION 13
ATTACHMENT B WORKSHEET 2.6.6-2 - ISOTOPIC ACTIVITY 15
ATTACHMENT C WORKSHEET 2.6.6-3 - STEAM ISOTOPIC CONCENTRATION 17

1.0 PURPOSE

A5.715EQ

1.1 This procedure provides instructions for performing an emergency dose assessment by hand calculation using projected isotopic release rates or quantities.

2.0 SCOPE

2.1 This procedure is not normally performed prior to activation of the TSC.

2.2 EA & DP personnel are authorized to deviate from verbatim compliance with this procedure if the instructions herein do not adequately address the actual emergency release situation.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 DLC, EPP/IP 2.6.6, Dose Calculation Factors. ERS-SFL-93-027, Revision 0; 1993.

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 The following attachments become QA records once completed.

4.1.1.1 Attachment A, Worksheet 2.6.6.1, Isotopic Concentration

4.1.1.2 Attachment B, Worksheet 2.6.6.2, Isotopic Activity

4.1.1.3 Attachment C, Worksheet 2.6.6.3, Steam Isotopic Concentration

4.2 Forms

4.2.1 None

5.0 RESPONSIBILITIES

5.1 Environmental Assessment and Dose Projection Personnel (EA & DP)

5.1.1 This procedure is to be performed by designated Environmental Assessment and Dose Projection (EA & DP) personnel.

6.0 PRECAUTIONS AND LIMITATIONS

A5.715EQ

6.1 Precautions

6.1.1 The wind direction requested in prompts and displayed on the various printouts is the wind direction from which the wind is coming (upwind), unless otherwise indicated. It is NOT the direction to which the plume is headed (downwind).

6.1.2 All calculations are to be checked by another person prior to use in protective action recommendations.

6.1.3 This procedure is a sub-procedure to 1/2-EPP-IP-2.6, Environmental Assessments and Dose Projections - Controlling Procedure, and is used in conjunctions with that procedure. See also sections 6.5.3 of the Emergency Preparedness Plan.

6.1.4 Sample results concentration data in units of uCi/cc can be subject to density effects if the pressure and temperature of the sample volume is significantly different from that of the environment. IF the sample pressure was not within 20% of 14.3 psia (12-17 psia), or IF the sample temperature was not within 20% of ambient temperature, or IF the sampled media undergoes a phase change (e.g., steam) between the sample point and the release point, THEN appropriate density corrections must be made. Step 8.4 provides instructions for making these adjustments in assessments involving steam generator tube rupture or main steam line break incidents.

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 Dose projections shall be performed whenever one or more of the following conditions are present. This procedure may be used to perform this assessment if the prerequisites stated in Step 7 can be met.

7.1.1 The results of an abnormal release evaluation performed in accordance with 1/2-HPP-3.06.013 or 1/2-HPP-3.06.012, indicate that an abnormal release has exceeded Technical Specification/Offsite Dose Calculation Manual limits (i.e., an UNUSUAL EVENT), or,

7.1.2 One or more effluent radiation monitors has alarmed and the readings are in excess of those values provided as INITIATORS for the UNUSUAL EVENT classification in 1/2-EPP-I-1, or,

7.1.3 An unmonitored release has occurred from an onsite tank for which analysis results from a recent tank sample are available, or,

7.1.4 An unmonitored release has occurred from an unmonitored pathway for which analysis results from a sample taken of the release stream are available, or,

A5.715EQ

7.1.5 As requested by the Emergency Director or Emergency/Recovery Manager.

7.2 The following prerequisites are required for successful completion of this procedure. IF any of the prerequisites below cannot be met, dose assessments shall be performed using 1/2-EPP-IP-2.6.1, or other methods, as appropriate.

7.2.1 Values of X/Q for EAB, 2 miles, 5 miles, 10 miles, and other optional distances as desired, shall be available. See 1/2-EPP-IP-2.6.1.

NOTE:	This procedure could be used with X/Q data obtained from MIDAS printouts. However, if MIDAS is available, consideration should be given to using the class A MIDAS model with effluent release option 6 selected. Refer to 1/2-EPP-IP-2.6.4.

7.2.2 Radioactivity concentration, in uCi/cc, of the known or projected isotopic mix; the release flow rate, in cfm; and the release duration, in hours,

- or -

Isotopic radioactivity released, in Ci, from sample analysis results (e.g., prior tank sample), or as projected.

- or -

Isotopic concentration, in uCi/gm, in the RCS or steam generator, and the RCS leakrate in gpm, or steam generator release flow rate in lbm/hour.

8.0 PROCEDURE

8.1 Preliminary Actions

8.1.1 Locate copies of worksheets 2.6.6-1, 2.6.6-2, and 2.6.6-3

8.1.1.1 IF concentration (uCi/cc) data are available, THEN use worksheet 2.6.6-1 for all remaining steps in this procedure.

8.1.1.2 IF activity (Ci) data are available, THEN use worksheet 2.6.6-2 for all remaining steps in this procedure.

8.1.1.3 IF steam concentration (uCi/gm) data are available, THEN use worksheet 2.6.6-3 for all remaining steps in this procedure.

8.1.2 Enter the following data on the selected worksheet. Obtain the data from TSC personnel or from other appropriate sources.

8.1.2.1 Enter the release start time in the block provided. A5.715EQ

8.1.2.1.1 IF the release has started and this information is unavailable , THEN use the current time.

8.1.2.1.2 IF the release has not started, THEN enter a projected start time and the phrase "PROJ" in this block.

8.1.2.2 Enter the release stop time in the block provided.

8.1.2.2.1 IF the release has stopped and this information is unavailable, THEN mark the block "UNKNOWN".

8.1.2.2.2 IF the release has NOT stopped, THEN enter a projected stop time and the phrase "PROJ" in this block.

8.1.2.3 Transfer the following data from 1/2-EPP-IP-2.6.1 or 1/2-EPP-IP-2.6.5, as appropriate, to the blocks provided:

8.1.2.3.1 Wind Speed at 35' in mph.

8.1.2.3.2 Stability Class (ABC, D, E, FG).

8.1.2.3.3 Wind Direction at 150' in degrees.

8.1.2.3.4 Wind Direction at 500' in degrees.

8.1.2.4 Enter the date and time the sample was obtained in the space provided.

8.1.2.4.1 IF the isotopic data were projected or derived from documents such as the UFSAR, THEN mark this block "N/A".

8.1.2.5 Enter a description of the location where the sample was taken.

8.1.2.5.1 IF the isotopic data were projected or derived from documents such as the UFSAR, THEN enter a cross-reference in this block.

8.1.2.6 IF the isotopic data will require adjustments, (e.g., density corrections, etc.), prior to entry on the worksheet, THEN enter a brief description of these adjustments in the space provided.

8.1.3 Enter the X/Q data for each distance at which a dose projection is to be performed in the appropriate blocks.

8.1.4 Proceed to the appropriate section for remaining steps:

8.1.4.1 IF using worksheet 2.6.6-1, THEN continue with Step 8.2.

8.1.4.2 IF using worksheet 2.6.6-2, THEN continue with Step 8.3. A5.715EQ

8.1.4.3 IF using worksheet 2.6.6-3, THEN continue with Step 8.4.

8.2 Isotopic Concentration, Worksheet 2.6.6-1

8.2.1 Transfer the isotopic data, in uCi/cc to the appropriate blocks in column b.

8.2.2 IF iodine concentrations were entered, THEN enter a value for the unfiltered release fraction in blocks 15d - 19d and 21d - 25d, as applicable.

8.2.2.1 IF no filters are in the release stream, THEN use a value 1.0.

8.2.2.2 IF the sample was taken downstream of the filters, THEN use a value of 1.0.

8.2.2.3 IF the filter efficiency is known, (e.g., 99%, 95%), THEN determine the unfiltered release fraction as follows:

8.2.2.3.1 Express the efficiency in terms of a fraction between 0 and 1 (e.g., 95% becomes 0.95).

8.2.2.3.2 Subtract this fraction from 1.0 and use the result in blocks 15d - 19d and 21d - 25d.

8.2.2.4 IF a value for filter efficiency is not available, but the release is filtered, THEN enter a value of 0.05 in blocks 15d - 19d and 21d - 25d as applicable.

NOTE: In the steps that follow, you may ignore any nuclide in blocks 1a through 19a with a concentration of 5.0E-7 uCi/cc or less, or a nuclide in blocks 21a through 25a with a concentration of 1.0E-8 uCi/cc or less (based on X/Q = 1.0E-3, no filtration, 60,000 cfm, the I-131 dose factor, and not greater than 0.001 rem).

8.2.3 Multiply the concentration value for each nuclide by its respective dose factor in column c and for iodine nuclides, the release fraction in column d. Enter the results in column e.

8.2.4 Sum the values in blocks 1e through 19e and enter the result in block 20e.

8.2.4.1 IF the value in block 20e is less than 1.0E-5 uCi/cc or less, THEN mark blocks 20i through 25i "negligible".

8.2.5 Sum the values in blocks 21e through 25e and enter the result in block 26e.

8.2.5.1 IF the value in block 26e is less than 1.0E-5 uCi/cc or less, THEN mark blocks 26i through 30i "negligible".

A5.715EQ

NOTE: If Total Effective Dose Equivalent (TEDE) doses or thyroid Committed Dose Equivalent (CDE) doses are marked negligible, you may bypass non-applicable instructions in Steps 8.2.6 through 8.2.8 below.

8.2.6 Transfer the release flow rate, in cfm, to blocks 20f and 26f.

8.2.6.1 IF the release flow rate is not available, THEN use one of the following defaults, as applicable:

	UNIT 1	UNIT 2
Ventilation Vent	60,000 cfm	11,250 cfm
SLCRS	42,500	57,000
Process Vent	1,200	--------
WGDT Vault Area	--------	2,000
Decon Bldg.	--------	8,700
Cond. Pol. Bldg.	--------	25,621

8.2.7 Using the release start and stop times on the worksheet, determine a release duration in hours and enter this value in blocks 20g and 26g.

8.2.7.1 IF the release duration cannot be estimated, THEN use 1.0 hour, and repeat this procedure when better data becomes available.

8.2.8 For each desired downwind distance in rows 20 through 24 and 26 through 30 and each nuclide with a concentration greater than zero, multiply the values in columns e, f, g, and h together and enter the results in column i.

8.2.9 Sign the block labeled "Calculated By:".

8.2.10 Have another individual check all mathematics. Have this individual sign the block labeled "Checked By".

8.2.11 Proceed to Step 8.5, Final Conditions

8.3 Isotopic Activity, Worksheet 2.6.6-2

8.3.1 Transfer the isotopic data, in Ci to the appropriate blocks in column b.

8.3.2 IF iodine activities were entered, THEN enter a value for the unfiltered release fraction in blocks 15d - 19d and 21d - 25d, as applicable.

8.3.2.1 IF no filters are in the release stream, THEN use a value 1.0.

8.3.2.2 IF the sample was taken downstream of the filters, THEN use a value of 1.0.

A5.715EQ

8.3.2.3 IF the filter efficiency is known (e.g., 99%, 95%), THEN determine the unfiltered release fraction as follows:

8.3.2.3.1 Express the efficiency in terms of a fraction between 0 and 1 (e.g., 95% becomes 0.95).

8.3.2.3.2 Subtract this fraction from 1.0 and use the result in blocks 15d - 19d and 21d - 25d.

8.3.2.4 IF a value for filter efficiency is not available, THEN enter a value of 0.05 in blocks 15d - 19d and 21d - 25d.

NOTE: In the steps that follow, you may ignore any nuclide in blocks 1a through 19a with an activity of 0.05 Ci or less, or an iodine nuclide in blocks 21a through 25a with an activity of 0.001 Ci or less (based on X/Q = 1.0E-3, no filtration, the I-131 dose factor, and less than 0.001 mrem).

8.3.3 Multiply the activity value for each nuclide by its respective dose factor in column c and for iodine nuclides, the release fraction in column d. Enter the results in column e.

8.3.4 Sum the values in blocks 1e through 19e and enter the result in block 20e.

8.3.4.1 IF the value in block 20e is less than 1.0 Ci or less, THEN mark blocks 20h through 25h "negligible".

8.3.5 Sum the values in blocks 21e through 25e and enter the result in block 26e.

8.3.5.1 IF the value in block 26e is less than 1.0 Ci or less, THEN mark blocks 26h through 30h "negligible".

8.3.5.2 IF both noble gas and thyroid doses are marked negligible, THEN proceed to Step 8.3.7.

NOTE: If TEDE doses or thyroid CDE doses are marked negligible, you may bypass non-applicable instructions in Steps 3.5 through 3.6 below.

8.3.6 For each desired downwind distance in rows 20 through 24 and 26 through 30 and each nuclide with a concentration greater than zero, multiply the values in columns d, e and g together and enter the results in column h.

8.3.7 Sign the block labeled "Calculated By:".

8.3.8 Have another individual check all mathematics. Have this individual sign the block labeled "Checked By:".

8.3.9 Proceed to Step 8.5, Final Conditions. A5.715EQ

8.4 Adjustments for Steam Generator Releases

NOTE:	Isotopic data must be expressed in units of uCi/gm and the release flow must be expressed in lbm/hour prior to use in this procedure.

NOTE:	The methodology in this section is intended to provide conservative results without extensive thermodynamic calculations. All results shall be verified with field measurements as soon as feasible.

8.4.1 Transfer the isotopic data, in uCi/gm, to the appropriate blocks in column b of worksheet 2.6.6-3.

8.4.2 Determine the release fraction for iodine. Circle the selected value and enter in blocks 15d - 19d and 21d - 25d of the worksheet.

8.4.2.1 IF the S/G tubes are covered, THEN use 0.01

8.4.2.2 IF the S/G tubes are NOT covered, THEN use 0.10

8.4.2.3 IF the S/G is dry, THEN use 1.0

8.4.2.4 IF the S/G is full, THEN use 0.5

8.4.2.5 IF the release is via the SJAE or process vent, THEN multiply selection above by 0.01.

NOTE:	In the steps that follow, you may ignore any nuclide in blocks 1a through 19a with a concentration of 1.0E-5 uCi/gm or less, or a nuclide in blocks 21a through 25a with a concentration of 5.0E-5 uCi/gm or less (based on X/Q = 1.0E-3, 0.01 partitioning, 4E6 lbm/hr, the I-131 dose factor, and not greater than 0.001 rem).

8.4.3 Multiply the concentration value for each nuclide by its respective dose factor in column c and for iodine nuclides, the release fraction in column d. Enter the results in column e.

8.4.4 Sum the values in blocks 1e through 19e and enter the result in block 20e.

8.4.4.1 IF the value in block 20e is less than 1.0E-7 uCi/gm, THEN mark blocks 20i through 25i "negligible".

8.4.5 Sum the values in blocks 21e through 25e and enter the result in block 26e.

8.4.5.1 IF the value in block 26e is less than 1.0E-5 uCi/gm, THEN mark blocks 26i through 30i "negligible".

A5.715EQ

8.4.5.2 IF both TEDE and thyroid CDE doses are marked negligible, THEN proceed to Step 8.4.9.

8.4.6 Using the release start and stop times on the worksheet, determine a release duration in hours and enter this value in blocks 20g and 26g.

8.4.6.1 IF the release duration cannot be estimated, THEN use 1.0 hour, and repeat this procedure when better data becomes available.

8.4.7 Determine release flow rate case:

8.4.7.1 IF a mass release rate in units of lbm/hr is available, THEN enter this value in blocks 20e and 26e of the worksheet. Continue with Step 8.4.7.

8.4.7.2 IF the release flow rate is to be based on MSSV, SGADV, SJAE, or AFTEX, operation (isotopic data for S/G contents), THEN determine the release flow rate from valve/equipment data as follows:

8.4.7.2.1 Multiply the applicable constant below by the number of open main steam safety valves on the affected loop and enter the result in the block provided.

Unit 1:	_____	valves	x	874,000	=	
Unit 2:	_____	valves	x	848,000	=	

8.4.7.2.2 IF the atmospheric steam dump is open, THEN circle the applicable value in the block below.

Unit 1:	=	403,000
Unit 2:	=	297,000

8.4.7.2.3 IF the turbine driven auxiliary feed water pump is running AND has NOT been isolated from the affected S/G, THEN circle the applicable value in the block below.

Unit 1:	=	29,000
Unit 2:	=	31,000

8.4.7.2.4 IF activity is being released via the steam jet air ejectors, THEN enter 180 in the block provided.

SJAE	=	

A5.715EQ

8.4.7.2.5 Sum the entries in Steps 8.4.7.2.1 through 8.4.7.2.4 and enter the result in the block below and in blocks 20f and 26f on the worksheet.

MSSVs + SGADV + AFTEX SJAE = [ ]

8.4.7.2.6 Proceed to Step 8.4.8.

8.4.7.3 IF the release is to be based on the RCS leak rate (isotopic data for RCS), THEN determine the release flow rate and enter the value obtained in blocks 20e and 26e on the worksheet.

8.4.7.3.1 Select a release conversion factor from the table below. Circle the value selected.

RCS Pressure Psig	RCS Temperature Deg.F	Release Conv. Factor
2235	652 (Tsat)	296
2235	577	363
2000	587 (Tsat-50)	353
1075	500 (Tsat-50)	395
1075	400 (Tsat-150)	432
500	418 (Tsat-50)	424
assuming	STP 1 gm/cc	500

8.4.7.3.2 Multiply the reactor coolant leak rate, in gpm, by the selected conversion factor and enter the result in the block provided and in blocks 20e and 26e on the worksheet.

_____ gpm X _____ = [ ]
Conv. factor

8.4.7.3.3 Continue with Step 8.4.8.

8.4.8 For each desired downwind distance in rows 20 through 24 and 26 through 30 and each nuclide with a concentration greater than zero, multiply the values in columns e, f, g and h together and enter the results in column i.

8.4.9 Sign the block labeled "Calculated By:".

A5.715EQ

8.4.10 Have another individual check all mathematics. Have this individual sign the block labeled "Checked By".

8.4.11 Proceed to Step 8.5, Final Conditions.

8.5 Final Conditions

8.5.1 Assessment results have been reported to the Emergency Director and/or the Emergency/Recovery Manager, (as appropriate for the emergency classification).

8.5.2 Assessment results have been compared against the emergency action levels in EPP/I-1, and necessary classification changes have been recommended to the Emergency Director, and/or the Emergency/Recovery Manager.

8.5.3 Assessment results have been compared against the protective action guides in 1/2-EPP-IP-4.1 and necessary offsite protective actions have been recommended to the Emergency Director, and/or the Emergency/Recovery Manager.

8.5.4 Assessment results have been evaluated for impact on onsite personnel and/or traffic control point personnel, and any potential impact has been reported to the Radiological Controls Coordinator in the TSC.

8.5.5 If hardcopy of the sample results (e.g., spectrometer printout) is available, attach same to the worksheet.

8.5.6 IF blocks in Section 8.4 were NOT used, THEN the originals of the completed worksheets shall be forwarded to the EA & DP Coordinator in the TSC/EOF, and then upon termination of the emergency, to the Communications and Records Coordinator.

8.5.7 IF steps in Section 8.4 were performed, THEN the originals of the completed worksheets shall be attached to the original copy of this procedure and the package forwarded to the EA & DP Coordinator in the TSC/EOF, and then upon termination of the emergency, to the Communications and Records Coordinator.

8.5.7.1 All blank spaces provided in this procedure for recording input shall contain data or shall be marked "N/A".

INTENTIONALLY BLANK

ATTACHMENT A
Page 1 of 1

A5.715ER

WORKSHEET 2.6.6-1 - ISOTOPIC CONCENTRATION

a	b	c	d	e
Nuclide	Release Conc. µCi/cc	Dose (1) Factor	Rel. Frac.	Block Entry
1 Kr-83m		2.55E-5		
2 Kr-85m		4.39E-2		
3 Kr-85		6.14E-4		
4 Kr-87		2.41E-1		
5 Kr-88		6.14E-1		
6 Kr-89		5.65E-1		
7 Kr-90		3.63E-1		
8 Xe-131m		2.31E-3		
9 Xe-133m		8.02E-3		
10 Xe-133		9.42E-3		
11 Xe-135m		1.18E-1		
12 Xe-135		6.62E-2		
13 Xe-137		5.19E-2		
14 Xe-138		3.35E-1		
15 I-131		2.47E1		
16 I-132		2.34		
17 I-133		6.89		
18 I-134		1.44		
19 I-135		3.84		
20 Sum Block e's =				
21 I-131		1.31E3		
22 I-132		1.56E1		
23 I-133		3.11E2		
24 I-134		4.09		
25 I-135		6.41E1		
26 Sum Block e's =				

Release Start	Release Stop
35' Wind Speed:	Stability Class:
mph	
150' Wind Direction:	500' Wind Direction:
deg.	deg.
Sample Date and Time:	
Sample Location:	
Sample Results Adjustment:	

f	g	h	i
FLOW RATE cfm	Rel. Dur. hours	X/Q sec/m³	DOSE Rem

Deminimus Values

Isotopic, µCi/cc
TEDE = 5.0E-7
Thyroid CDE = 1.0E-8
Gross
TEDE = 1.0E-5
Thyroid CDE = 1.0E-5

		20 EAB			TEDE
		21 2 mi			
		22 5 mi			
		23 10 mi			
		24 __ mi			
		26 EAB			Child Thyroid CDE
		27 2 mi			
		28 5 mi			
		29 10 mi			
		30 __ mi			

Date/Time:	
Calculated By:	Checked By:

(1) Reference: ERS-SFL-93-027

INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 1

A5.715ES

WORKSHEET 2.6.6-2 - ISOTOPIC ACTIVITY

a Nuclide	b Release Conc Ci	c Dose (1) Factor	d Rel. Fract.	e Block a x c x d
1 Kr-83m		1.50E-5		
2 Kr-85m		2.58E-2		
3 Kr-85		3.61E-4		
4 Kr-87		1.42E-1		
5 Kr-88		3.61E-1		
6 Kr-89		3.33E-1		
7 Kr-90		2.14E-1		
8 Xe-131m		1.36E-3		
9 Xe-133m		4.72E-3		
10 Xe-133		5.55E-3		
11 Xe-135m		6.94E-2		
12 Xe-135		3.90E-2		
13 Xe-137		3.05E-2		
14 Xe-138		1.97E-1		
15 I-131		1.45E1		
16 I-132		1.38		
17 I-133		4.06		
18 I-134		8.49E-1		
19 I-135		2.26		
20 Sum Block e's =				
21 I-131		7.73E2		
22 I-132		9.19		
23 I-133		1.83E2		
24 I-134		2.41		
25 I-135		3.77E1		
26 Sum Block e's =				

Release Start	Release Stop
35' Wind Speed:	Stability Class:
mph	
150' Wind Direction:	500' Wind Direction:
deg.	deg.
Sample Date and Time:	
Sample Location:	
Sample Results Adjustment:	

Deminimus Values

Isotopic, Ci
TEDE = 0.05
Thyroid CDE = 0.001
Gross
TEDE = 1.0
Thyroid CDE = 1.0

f Rel. Dur. hours		g X/Q sec/m³	h DOSE Rem
	20 EAB		
	21 2 mi		
	22 5 mi		
	23 10 mi		
	24 __ mi		

TEDE

		26 EAB		
		27 2 mi		
		28 5 mi		
		29 10 mi		
		30 __ mi		

Child Thyroid CDE

2.6.6-2 12/93	Date/Time:
Calculated By:	Checked By:

(1) Reference: ERS-SFL-93-027

INTENTIONALLY BLANK

ATTACHMENT C
Page 1 of 1
WORKSHEET 2.6.6-3 - STEAM ISOTOPIC CONCENTRATION A5.715ET

a	b	c	d	e
Nuclide	Release Conc. (UCi/cm³)	Dose (D) Factor	Rel. Fract.	Block e (UCi)
1 Kr-83m		6.80E-9		
2 Kr-85m		1.17E-5		
3 Kr-85		1.64E-7		
4 Kr-87		6.42E-5		
5 Kr-88		1.64E-4		
6 Kr-89		1.51E-4		
7 Kr-90		9.69E-5		
8 Xe-131m		6.16E-7		
9 Xe-133m		2.14E-6		
10 Xe-133		2.51E-6		
11 Xe-135m		3.15E-5		
12 Xe-135		1.77E-5		
13 Xe-137		1.39E-5		
14 Xe-138		8.94E-5		
15 I-131		6.58E-3		
16 I-132		6.25E-4		
17 I-133		1.84E-3		
18 I-134		3.85E-4		
19 I-135		1.02E-3		
20 Sum Block e's =				
21 I-131		3.51E-1		
22 I-132		4.17E-3		
23 I-133		8.29E-2		
24 I-134		1.09E-3		
25 I-135		1.71E-2		
26 Sum Block e's =				

Release Start	Release Stop
35' Wind Speed	Stability Class
mph	
150' Wind Direction	500' Wind Direction
deg.	deg.
Sample Date and Time	
Sample Location	
Sample Result Adjustment	

f	g	h	i	
FLOW RATE	Rel. Dur. (hours)		χ/Q (sec/m³)	DOSE Rate (mrem/hr)
		20 EAB		
		21 2 mi		
		22 5 mi		
		23 10 mi		
		24 __ mi		

Deminimus Values

Isotopic, µCi/gm
TEDE = 1.0E-6
Thyroid CDE = 5.0E-5
Gross
TEDE = 1.0E-7
Thyroid CDE = 1.0E-5

TEDE

		26 EAB		
		27 2 mi		
		28 5 mi		
		29 10 mi		
		30 __ mi.		

Child Thyroid CDE

Date/Time:	
Calculated By:	Checked By:

2.6.6-3 12/93

(1) Reference: ERS-SFL-93-027

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-3.5

TRAFFIC AND ACCESS CONTROL

Document Owner
Manager, Emergency Preparedness

Revision Number	10
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 1

4.1 Records 1
4.2 Forms 1

5.0 RESPONSIBILITIES 2

5.1 Emergency Director 2
5.2 Beaver County Emergency Management Agency 2
5.3 Emergency Recovery Manager 2
5.4 Security 2
5.5 Communications and Records Coordinator 2

6.0 PRECAUTIONS AND LIMITATIONS 2

6.1 Precautions 2
6.2 Limitations 3

7.0 PREREQUISITES 3

8.0 PROCEDURE 3

1.0 PURPOSE

1.1 This procedure provides instructions for maintaining emergency access control for areas in the BVPS Exclusion Area. This may include areas outside the BVPS property fence occupied by members of the general public.

2.0 SCOPE

2.1 An emergency condition at the Beaver Valley Power Station has resulted in conditions within the Exclusion Area, which warrants evacuation and/or access control.

2.1.1 Upon a declaration of an ALERT (Non-Security Related Incident), Security should dispatch one (1) Security Officer to the Shippingport Municipal Building.

2.1.2 The Security Officer should report to the Police Services Officer and proceed to establish access control for the EOC. An additional Security Officer may be called-out by the reporting officer.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.

3.1.2 State and local emergency preparedness plans/procedures.

3.1.3 Title 10 Code of Federal Regulations Parts 20 and 50.

3.1.4 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 None

5.0 RESPONSIBILITIES

5.1 Emergency Director (SM until properly relieved)

5.1.1 Establishing access control will initially be the responsibility of the Emergency Director (SM until properly relieved). Following the initial period, the State and County forces will assume responsibility for access control on affected areas outside the site fence.

5.1.2 The Emergency Director or the Emergency Recovery Manager, if activated, should coordinate with Beaver County Emergency Management Agency in establishing access control on the Route 168 Ohio River Bridge.

5.2 Beaver County Emergency Management Agency

5.2.1 The is responsible to provide for access control (roadblocks, etc.) to restrict the access of members of the public to affected areas offsite.

5.3 Emergency Recovery Manager

5.3.1 The Emergency Director or the Emergency Recovery Manager, if activated, should coordinate with Beaver County Emergency Management Agency in establishing access control on the Route 168 Ohio River Bridge.

5.4 Security

5.4.1 Is responsible to assist in the completion of the appropriate actions stated in this IP, as well as, dispatching of personnel to the Shippingport Municipal Building.

5.5 Communications and Records Coordinator

5.5.1 Is responsible to assist in the completion of the appropriate actions stated in this IP.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 The Exclusion Area at the Beaver Valley Power Station includes portions of Route 168 SE from the site; 7.4 acres across Route 168 SW of the Site; Rt. 168 and bridge NE from site; Phillis Island; and the Ohio River. In an emergency with offsite consequences, unauthorized and unessential individuals must be kept outside of the exclusion area.

6.1.2 The Rt. 168 Ohio River Bridge is a major connector between west and east banks of the Ohio River, and may be used by emergency vehicles, and possibly by members of the population during evacuations. The Beaver County emergency plan does not designate the bridge as an evacuation route; however, it may be utilized, if necessary.

6.1.3 County officials establish roadblocks primarily for the security of evacuated areas, but could establish roadblocks to control traffic flows during evacuations. To minimize possible difficulties, all BVPS personnel shall ensure that they are carrying their identification card offsite, or other suitable identification that will identify them as Station employees (such as the BVPS "Emergency Representative" card).

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 None

8.0 PROCEDURE

8.1 In the event of an emergency which requires evacuation of the station Exclusion Area, the Emergency Director will proceed as follows:

8.1.1 Notify the Beaver County Emergency Management Agency (BCEMA) of the situation and the need for access control, if not already done. (724-775-0880 or 724-775-1700)

NOTE:	Notification specified in this procedure may be made as part of notifications required by other implementing procedures. The notifications need not be repeated.

8.1.2 Request Security to restrict access to the Beaver Valley Power Station to only individuals (and vehicles) from the following organizations.

8.1.2.1 First Energy/FENOC employees

8.1.2.2 Beaver County Emergency Management Agency (BCEMA)

8.1.2.3 Pennsylvania Emergency Management Agency (PEMA)

8.1.2.4 PA Department of Environmental Protection/Bureau of Rad Protection (DEP/BRP)

8.1.2.5 West Virginia Office of Emergency Services (WVOES)

8.1.2.6 Ohio Emergency Management Agency (OEMA)

8.1.2.7 Columbiana County Emergency Management Agency (CCEMA)

8.1.2.8 Hancock County Office of Emergency Services (HCOES)

8.1.2.9 Nuclear Regulatory Commission (NRC)

8.1.2.10 Federal Emergency Management Agency (FEMA) and supporting Federal agencies

8.1.2.11 Fire, Police, Ambulances

8.1.2.12 INPO, Westinghouse

8.1.2.13 Others, as approved by TSC/EOF

8.1.3 Personal identification cards, uniforms, vehicle markings, letters of access or other similar means may be used for identification.

8.1.3.1 Access to the Site will be restricted to only those individuals on the above list or those specifically approved by the TSC. This approval may be in the form of an access list (long term) or by radio/telephone from the TSC (short term) or Control Room if the TSC is not activated.

8.1.3.2 Press and media personnel will be directed to the Joint Public Information Center (JPIC), Spring Run Extension, Findley Township, PA.

8.1.4 When instructed by the Emergency Director, the Communications and Records Coordinator will notify the following organization IF work activities or traffic from these organizations is expected at the Site:

- CSX Corporation Chief Dispatcher 1-800-593-6189 (24 hr.)

8.1.4.1 Identify yourself by name, job title, employer (BVPS), and work location (BVPS).

8.1.4.2 State that there has been an emergency briefing, giving the approximate time and date at the Beaver Valley Power Station and that the BVPS Emergency Preparedness Plan has been implemented.

8.1.4.3 Request the following:

8.1.4.3.1 Railroad traffic approaching the Exclusion Area be halted or redirected.

8.1.4.3.2 Railroad traffic that passed through any affected area during the emergency be removed from service as soon as possible for monitoring by PEMA personnel.

8.1.4.3.3 A call back to verify validity of emergency notification.

8.1.5 When instructed by the Emergency Director, the Communications and Records Coordinator will notify all of the following to establish Ohio River Traffic Control IF work activities or traffic is expected at the Site:

- National Response Center (EPA and Coast Guard) (800) 424-8802
- US Coast Guard, Captain of Port, Pittsburgh (412) 644-5808
- Montgomery Locks--(upstream) (724) 643-8400
- New Cumberland Dam--(downstream) (740) 537-2571

8.1.5.1 Identify yourself by name, job title and employer (BVPS).

8.1.5.2 State that there has been an emergency briefing, giving approximate time and date, at the Beaver Valley Power Station and that the BVPS Emergency Preparedness Plan has been implemented.

8.1.5.3 Request the following:

8.1.5.3.1 That the Coast Guard and the US Corps of Engineers establish a "security zone" encompassing the pool between the New Cumberland Dam and the Montgomery Dam. (Larger if necessary).

8.1.5.3.2 That the Coast Guard utilize all available radio communications to alert and advise all river traffic.

8.1.5.3.3 That the Coast Guard advise the Dravo dredge (in the Montgomery Pool) to evacuate.

8.1.5.3.4 That the US Army Corps of Engineers detain all river traffic that passed through the affected areas during the release for monitoring by Federal and State personnel.

8.1.5.3.5 A call back to verify the validity of the notification.

8.1.6 Inform Security to utilize available equipment/personnel to observe Phillis Island for occupancy, if not already completed.

8.1.7 Continue access control until such time as State/County agencies assume responsibility, or until no longer warranted.

8.2 Final Conditions

8.2.1 The use of this procedure will be terminated when the plant is at a stable condition and there is no longer need for an evacuation or traffic and access control.

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-7.1

EMERGENCY EQUIPMENT INVENTORY AND MAINTENANCE PROCEDURE

Document Owner
Manager, Emergency Preparedness

Revision Number	16
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 1

4.1 Records 1
4.2 Forms 1

5.0 RESPONSIBILITIES 3

5.1 Manager, Emergency Preparedness 3
5.2 EPP Lead Nuclear Technologist 3
5.3 Radiation Protection 3

6.0 PRECAUTIONS AND LIMITATIONS 3

6.1 Precautions 3
6.2 Limitations 3

7.0 PREQUISITES 3

8.0 PROCEDURE 3

8.1 General Inventory Actions 3
8.2 Specific Inventory Instructions 4
8.3 Final Conditions 6

ATTACHMENT A EMERGENCY EQUIPMENT INVENTORY TYPE/LOCATIONS 7

1.0 PURPOSE

1.1 This procedure provides instructions for maintaining and inventorying emergency cabinets and equipment.

2.0 SCOPE

2.1 Inventories are performed quarterly (routine inventory) or after each applicable equipment usage (drills, exercises, etc.)

2.2 Monthly respirator inspections of respirators maintained for emergency preparedness SHALL be performed and documented by Radiation Protection using appropriate Radiation Protection procedures.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Radiation Protection Procedures

3.1.2 Beaver Valley Power Station Emergency Preparedness Plan

3.1.3 Title 10, Code of Federal Regulation Part 50

3.1.4 Condition Reports

- 972288
- 02-06579
- 02-06579
- 03-02034
- 03-08995

3.2 Commitments

3.2.1 BVPS Unit 1 Licensing Commitment 2.C (7) (CATS A970524P)

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 Records generated by this procedure are listed in the Forms section.

4.2 Forms

4.2.1 Form, 1/2-EPP-IP-7.1.F01, Emergency Inventory Checklist – Control Room Emergency Cabinet No. 1

4.2.2 Form, 1/2-EPP-IP-7.1.F02, Emergency Inventory Checklist – Water Monitoring Team Kit

4.2.3 Form, 1/2-EPP-IP-7.1.F03, Emergency Inventory Checklist – Field Monitoring Team Kit No.

4.2.4 Form, 1/2-EPP-IP-7.1.F04, Emergency Inventory Checklist – Offsite Communication Equipment

4.2.5 Form, 1/2-EPP-IP-7.1.F05, Emergency Inventory Checklist – Alternate EOF Emergency Cabinet No. 2

4.2.6 Form, 1/2-EPP-IP-7.1.F06, Emergency Inventory Checklist – SPING (U1) Emergency Sampling Kit

4.2.7 Form, 1/2-EPP-IP-7.1.F07, Emergency Inventory Checklist – WRGM (U2) Emergency Sampling Kit

4.2.8 Form, 1/2-EPP-IP-7.1.F08, Emergency Inventory Checklist – Near Site Assembly Areas

4.2.9 Form, 1/2-EPP-IP-7.1.F09, Emergency Inventory Checklist – Primary Assembly Areas

4.2.10 Form, 1/2-EPP-IP-7.1.F10, Emergency Inventory Checklist – Technical Support Center (TSC) Cabinet No. 1, 2 and 3

4.2.11 Form, 1/2-EPP-IP-7.1.F11, Emergency Inventory Checklist – Emergency Operations Facility (EOF) Cabinet No. 1, 2 and Cabinet No.3 – Environmental Assessment & Dose Projection (EA&DP)

4.2.12 Form, 1/2-EPP-IP-7.1.F12, Emergency Inventory Checklist – Personnel Decontamination Cabinet

4.2.13 Form, 1/2-EPP-IP-7.1.F13, Emergency Inventory Checklist – Personnel Decontamination Kit

4.2.14 Form, 1/2-EPP-IP-7.1.F14, Emergency Inventory Checklist – ERF Access Area Supplies

4.2.15 Form, 1/2-EPP-IP-7.1.F15, Emergency Inventory Checklist – EOF Equipment Cart No. 1

4.2.16 Form, 1/2-EPP-IP-7.1.F16, Emergency Inventory Checklist – EPP Air Sample Cart No.

4.2.17 Form, 1/2-EPP-IP-7.1.F17, Emergency Inventory Checklist – Operations Support Center (OSC)

4.2.18 Form, 1/2-EPP-IP-7.1.F18, Emergency Inventory Checklist – Alternate Operations Support Center (OSC)

4.2.19 Form, 1/2-EPP-IP-7.1.F12, Emergency Inventory Checklist – Medical Kit

4.2.20 Form, 1/2-EPP-IP-7.1.F12, Emergency Inventory Checklist – RCT Response Kit No.

5.0 RESPONSIBILITIES

5.1 Manager, Emergency Preparedness

5.1.1 Is responsible for ensuring that the emergency cabinets and facilities have the proper equipment and procedures required at that location.

5.2 EPP Lead Nuclear Technologist

5.2.1 Is responsible for ensuring that the quarterly inventory or post use inventories are completed and that appropriate corrective actions have been implemented.

5.3 Radiation Protection

5.3.1 Is responsible for performing and documenting the inventory, ensuring calibrated dosimetry and survey instruments are maintained in appropriate locations, and that the monthly respirator inspection is completed.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 During inventory, if an item is missing or if the minimum required number is not present, the item shall be replaced as soon as possible (within two weeks).

6.1.2 Items whose calibration expiration date is prior to the next scheduled inventory will be replaced prior to their expiration date.

6.1.3 For additions/deletions/revisions to the facility/cabinet/kit items a Condition Report SHALL be generated.

6.2 Limitations

6.2.1 None

7.0 PREQUISITES

7.1 None

8.0 PROCEDURE

8.1 General Inventory Actions

8.1.1 After a drill, actual emergency event, or if emergency facilities are disturbed, all effected cabinets, facilities and kits will be inventoried by RP technicians or Emergency Response Organization personnel as assigned by Radiation Protection or Emergency Preparedness supervision.

NOTE: All inventory locations are listed on Attachment A.

8.1.1.1 Radiation Protection supervision will inform the Rad Protection (RP) technician of what areas are to be inventoried

NOTE: Current Forms, E-Plan Appendix C and Implementing Procedure Effective Index are located on FYI.

8.1.1.2 The appropriate inventory forms and applicable E-Plan Appendix C and/or EPP Implementing Procedure Effective Index will be provided to the Radiation Protection technician.

8.1.1.2.1 The RP technician will be provided the current revision numbers for any RP procedures located on the inventory forms.

8.1.1.3 The Radiation Protection Technician will proceed to the appropriate locations and using the form for that location as guidance, perform and document the inventory on the form.

8.1.1.3.1 Any items that are missing, out of calibration, or need replaced for any reason shall be documented on the inventory form.

8.1.1.3.2 The Radiation Protection technician should replace any item needing replaced. The Radiation Protection Supervisor should be notified of any items that need replaced but were not.

8.1.1.3.3 Replacement of items by the Radiation Protection technician shall be documented on the inventory forms including the date of replacement.

8.1.1.4 All completed inventory forms will be signed and returned to a Radiation Protection Supervisor.

8.1.1.5 The Radiation Protection Supervisor shall make arrangements to replace any items that need replaced as soon as possible. A Condition Report/Corrective Action should be generated when replacement is delayed for greater than two weeks.

8.1.1.6 The Radiation Protection Supervisor shall forward all completed and reviewed inventory forms to Emergency Preparedness.

8.2 Specific Inventory Instructions

8.2.1 Radiation survey meters

8.2.1.1 Perform inventory check, replace missing or out of calibration meters with a meter with a calibration due date that will not expire before the next quarterly inventory.

8.2.1.2 Record serial number(s) and calibration due dates(s) on the meter(s) or replacement(s) on the inventory form.

8.2.2 Air sampler

8.2.2.1 Perform inventory check, replace missing or out of calibration air samplers with an air sampler with a calibration due date that will not expire before the next quarterly inventory.

8.2.2.2 Record serial number(s) and calibration due dates(s) on the air sampler(s) or replacement(s) on the inventory form.

8.2.2.3 Operate for at least five minutes and check for proper functioning, recording the flow rate in "Remark" column.

8.2.3 Radios

8.2.3.1 Check that the proper number of radios are present in designated locations.

8.2.3.2 Check for proper operation, send and receive with an operating radio of the same frequency.

8.2.4 Dosimetry

8.2.4.1 During routine or special inventories of cabinets containing dosimeters, it is necessary to only verify quantify, type (or range), and that the calibration due date has not been exceeded. Dosimeters should be rezeroed when necessary.

NOTE:	The Dosimetry Lab will calibrate the dosimeters and replace dosimeters when appropriate to maintain calibrated dosimeters in appropriate locations.

8.2.4.2 If discrepancies are noted, report these to the Dosimetry supervisor and if necessary obtain replacement dosimeters.

8.2.5 Respirators and cartridges

8.2.5.1 Emergency cabinet/kit respirators will be inspected as described in Step 2.2 of this procedure. During quarterly and special inventories, personnel need only to verify that the correct number of respirators are present and expiration dates have not been exceeded. If replacements are required, Radiation Protection personnel shall obtain them and record serial numbers on the inventory forms. Ensure that replacements have an inspection that will not expire before next scheduled monthly inspection.

8.2.6 Batteries

8.2.6.1 Perform operability check of battery powered equipment.

8.2.6.2 Replace batteries, including spare batteries, as needed or as specified on the inventory form.

8.2.7 Anti-C's (including coveralls, hoods, gloves, shoe covers) and other cloth or plastic suits/equipment

8.2.7.1 During inventory check and replace any item that appears to be ripped, torn, badly soiled, cracked, or otherwise exhibiting signs of deterioration.

8.2.8 Maps, lists, data sheets office supplies.

NOTE:	Procedures are supplied and updated by Beaver Valley Records Center Section.

8.2.8.1 Perform inventory check and check that all items are current, in order, and in good condition.

8.2.8.2 Verify that Controlled copies of the Emergency Preparedness Plan, Implementing Procedures (IP's), and Radiation Protection procedures are in the locations indicated on the inventory forms.

8.2.8.3 For sectionalized copies of the IP's or RP procedures, verify the correct revision by comparing to the EPP/Implementing Procedures Effective Index list or for RP procedures, the current revision number provided in Step 8.1.1.2.1.

8.2.8.4 Notify Radiation Protection Supervisor of outdated or damaged procedures.

8.2.8.5 Radiation Protection supervision shall notify BVRC of procedures that need updated.

8.3 Final Conditions

8.3.1 Each cabinet/kit/facility inventoried is complete as indicated on inventory form or deficiency is documented on inventory form and on CREST, when appropriate.

8.3.2 All inventory forms are reviewed and forwarded to Emergency Preparedness.

8.3.3 A report of each inventory and inspection, including documented deficiencies has been prepared and submitted to the Manager, Emergency Preparedness.

ATTACHMENT A
Page 1 of 1
EMERGENCY EQUIPMENT INVENTORY TYPE/LOCATIONS

Name/Type	Location	Minimum
Control Room Emergency Cab. #1	Control Room	1
Water Monitoring Team Kit	ERF Decon Room	1
Field Monitoring Team Kit	ERF Decon Room/AEOF (JPIC)	3
Offsite Communications Equipment	ERF Decon Room Cabinet	3
Alternate EOF Emergency Cabinet #2	Alternate EOF (JPIC)	1
SPING (U1) Emergency Sampling Kit	U1-752' PAB	1
WRGM (U2) Emergency Sampling Kit	U2-773' PAB	1
Near Site Assembly Areas	QA Bldg., Training Bldg., WH-B	1 each
Primary Assembly Area	NCD-2, NCD-3, SOSB-3, SOSB-4	1 each
TSC Cabinet #1 through 3	ERF-TSC	1
EOF Cabinet #1 through 3	ERF-EOF	1
Personnel Decon Cabinet	ERF Decon Shower, U2-773' Waste Handling Bldg., U1-735' Decon Shower	1
Personnel Decon Kit	ERF Decon Shower Room Cabinet	3
ERF Access Area Supplies	ERF-Decon Shower Room	1
EOF Equipment Cart	ERF-EOF Hallway	1
EPP Air Sampling Cart No.	U1 Turbine Deck 735, U2 SOSB West Stairwell 730'	2
OSC Cabinets 1 through 5	OSC (Outage Central)	1 each
Alternate OSC Cabinets 1 through 3	Emergency Shutdown Panel Area	1 each
Medical Kit	Beaver County Medical Center	1
RCT Response Kit No.	Primary Access Control Point (U2)/ Alternate Access Control Point (U1)	1 each location

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-9.4

ACTIVATION, OPERATION AND DEACTIVATION OF THE JOINT PUBLIC INFORMATION CENTER (JPIC)

Document Owner
Manager, Emergency Preparedness

Revision Number	11
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1
- 3.1 References 1
- 3.2 Commitments 1

4.0 RECORDS AND FORMS 2
- 4.1 Records 2
- 4.2 Forms 2

5.0 RESPONSIBILITIES 2
- 5.1 JPIC Manager 2
- 5.2 JPIC Personnel 2

6.0 PRECAUTIONS AND LIMITATIONS 2
- 6.1 Precautions 2
- 6.2 Limitations 2

7.0 PREREQUISITES 3

8.0 PROCEDURE 3
- 8.1 Activation 3
- 8.2 Operation 3
- 8.3 Deactivation 5
- 8.4 Final Conditions 5

ATTACHMENT A JOB GUIDELINES 7
ATTACHMENT B NEWS ANNOUNCEMENT DISTRIBUTION FOR: JOINT PUBLIC INFORMATION CENTER 25
ATTACHMENT C RUMOR INQUIRY FORM JOINT PUBLIC INFORMATION CENTER 29
ATTACHMENT D SECURITY PROCEDURES 31
ATTACHMENT E JPIC FLOOR PLANS 33
ATTACHMENT F JPIC NEWS BRIEFING SUMMARY SHEET 37

1.0 PURPOSE

1.1 This procedure provides guidance for the Joint Public Information Center (JPIC) staff in the activation, operation and deactivation of the JPIC.

2.0 SCOPE

2.1 None

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Beaver Valley Power Station Emergency Preparedness Plan.

3.1.2 Title 10, Code of Federal Regulations, Part 50.

3.1.3 NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".

3.1.4 NPDAP 5.3, News Release and Notification

3.1.5 1/2-EPP-IP 1.7, Emergency Response Organization Teams.

3.1.6 Condition Reports

- 01-3198
- 01-4230
- 01-4236
- 02-03981
- 02-03982
- 02-03983
- 02-03678
- 02-03713
- 02-04004
- 02-04855
- 02-04905
- 02-04919
- 03-07344-1
- 03-07350-1
- 03-08726
- 03-08672-2
- 03-68672-4

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 Attachment C and F

5.0 RESPONSIBILITIES

5.1 JPIC Manager

5.1.1 Has overall responsibility for the implementation of this procedure.

5.2 JPIC Personnel

5.2.1 Job Guidelines for JPIC personnel are located in Attachment A.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 All news announcements must be approved by either the designated Emergency Director (prior to Emergency Operations Facility (EOF) activation) or the Emergency/Recovery Manager (after EOF activation).

6.1.2 Any significant policy announcement on subjects other than plant conditions must be coordinated with First Energy Corporate Communications, in consultation with the Senior Vice President-Nuclear.

6.1.3 Representatives of the State and the County emergency response agencies are encouraged to participate at the news briefings. BVPS may issue joint news announcements with these agencies.

6.1.4 The County and the State emergency management agencies have been asked to advise the Senior Nuclear Communications Representative of announcements issued to the news media or the Emergency Alert Stations.

6.2 Limitations

6.2.1 JPIC activation is required at an emergency condition, classified as a Site Area or General Emergency at Beaver Valley Power Station Unit 1, Unit 2, or as requested by the Emergency Director, or ...

6.2.2 As deemed necessary by the Senior Nuclear Communications Representative, or designee, in consultation with the Senior Vice President-Nuclear, or designee.

7.0 PREREQUISITES

7.1 None

8.0 PROCEDURE

NOTE:	JPIC personnel are activated in accordance with EPP/IP 1.7, "EMERGENCY RESPONSE ORGANIZATION TEAMS."

8.1 Activation

NOTE:	Designated JPIC personnel (beeper holders) shall be notified and mobilized at an Alert Emergency via beeper activation. Once the designated personnel arrive at the JPIC, additional personnel may be called-in, as necessary.

8.1.1 Upon notification, JPIC personnel shall report to the JPIC and sign the staffing board.

8.1.2 The Information Coordinator shall notify the JPIC Manager when adequate staff has arrived.

8.1.3 The Logistics Coordinator shall notify the JPIC Manager when sufficient equipment and supplies are available for operation of the JPIC.

8.1.4 The Security Coordinator shall establish and maintain adequate security in accordance with Attachment D of this procedure.

8.1.5 The JPIC Manager shall make a formal activation announcement of the JPIC over the JPIC public address system.

8.1.6 Via telephone, the Information Coordinator shall inform the EPIO staff at the EOF and the FirstEnergy Customer Services Department that the JPIC has been activated.

8.2 Operation

8.2.1 News Announcements

8.2.1.1 The Information Coordinator shall collect all news announcements that were approved prior to JPIC activation.

8.2.1.2 Administrative Support personnel shall ensure the distribution of all news announcements as described in Attachment B of this procedure.

8.2.1.3 The Information Coordinator shall continue to obtain current news announcements from the EOF in accordance with the guidelines in Attachment A.

8.2.1.4 The Information Coordinator shall ensure JPIC review and distribution of subsequent news announcements in accordance with the guidelines in Attachment A.

8.2.1.5 The Information Coordinator shall verbally notify the EOF Nuclear Communication Manager of the JPIC receiving and reviewing of news announcements.

8.2.2 News Briefings

8.2.2.1 Via telephone, the JPIC Technical Advisor shall contact the EOF Technical Advisor to discuss plant related information.

8.2.2.2 Via telephone conferencing, the JPIC Technical Advisor shall ensure the participation of the Chief Company Spokesperson and Information Manager in discussions per 6.1.1, as appropriate.

8.2.2.3 Information gathered during the conference call may be presented at news briefings by the Chief Company Spokesperson.

8.2.2.4 The JPIC Manager shall arrange for a pre-briefing meeting with the governmental Public Information Officers (PIOs) present at the JPIC, in preparation for the news briefing.

8.2.2.5 The Chief Company Spokesperson and the JPIC Manager, in consultation with the governmental PIOs, will determine the frequency of news briefings at the JPIC.

8.2.2.6 The Media Relations Coordinator will inform the news media of the time of upcoming news briefings.

8.2.2.7 The JPIC Manager will preside over news briefings. The Chief Company Spokesperson and governmental PIOs will provide information and answer news media questions regarding the status of the emergency.

8.2.2.8 JPIC personnel will record questions that could not be answered and provide answers for subsequent news briefings.

8.2.2.9 The JPIC Technical Briefer will provide generic information regarding plant systems to the news media.

8.2.3 Information Management and Control

8.2.3.1 The Media Contact Representatives shall receive and respond to telephone calls from the news media in accordance with the guidelines in Attachment A.

8.2.3.2 The Media Monitoring Representatives shall monitor TV and radio news broadcasts in accordance with the guidelines in Attachment A.

8.2.3.3 The Rumor Control Coordinator shall report any apparent misinformation received to the Information Coordinator in accordance with the guidelines in Attachment A.

8.2.3.4 The EMA Contact Representatives shall provide information to and receive information from the governmental PIOs at the JPIC in accordance with the guidelines in Attachment A.

8.3 Deactivation

8.3.1 Upon concurrence from the JPIC Manager, the Chief Company Spokesperson and governmental PIO's, the JPIC shall be deactivated.

8.3.2 Emergency equipment/supplies shall be restored to preactivation status, by the Logistics Coordinator.

8.4 Final Conditions

8.4.1 This procedure shall be terminated after the following conditions have been met:

8.4.1.1 Normal plant operations have been or are in the process of being restored.

8.4.1.2 News media interest has diminished to such an extent that pre-emergency media relations procedures can again be used.

8.4.1.3 The JPIC staff has been relieved of all duties associated with the development and presentation of news information.

INTENTIONALLY BLANK

ATTACHMENT A
Page 1 of 17
JOB GUIDELINES

CHIEF COMPANY SPOKESPERSON

1. Reports to the JPIC and signs the staffing board.

2. Briefs and consults with the EPIO staff and governmental PIOs at the JPIC.

3. Presents regular, timely information at news briefings at the JPIC regarding the status of the plant.

4. Announces plant status and actions being taken to achieve plant stability, using current news announcements and information regarding plant status provided by the Technical Advisor.

5. Reviews news announcements.

6. Announces any company policy decisions coming from the EOF regarding the protection and safety of on-site personnel.

7. Announces any upgrading or termination of emergency classification of the plant and the reason for the change.

8. Participates in interviews with the local, regional and national news media.

9. Frequently consults with the Emergency/Recovery Manager regarding present status of plant conditions and when possible participates in EOF briefings via phone.

ATTACHMENT A
Page 2 of 17
JOB GUIDELINES

JPIC MANAGER

1. Reports to the JPIC and signs the staffing board.

2. Mobilize the remainder of the JPIC staff by directing the Information Manager, Information Coordinator, Media Relations Coordinator and the Logistics Coordinator to begin the call out of additional personnel, as necessary.

3. Announces the activation of the JPIC via the public address system once sufficient staff and equipment is in place as communicated by the Information and Logistics Coordinators.

4. Ensures JPIC logistical needs are met through interface with the Logistics Coordinator.

5. Continually observes the operation of the JPIC and recommends changes or improvements to facilitate media briefings.

6. Reviews news announcements if Chief Company Spokesperson unavailable.

7. During news briefings, compiles a list of items that need to be followed up in subsequent briefings. This includes questions that need to be answered, evaluation of the effectiveness of each news briefing, and follow-up of incorrect information that was released to the public from whatever source.

8. Advises The Chief Company Spokesperson and points out potential questions to be answered in upcoming news briefings.

9. Deactivates the JPIC as outlined in Section 8.3, Deactivation and Section 8.4, Final Conditions of this procedure.

ATTACHMENT A
Page 3 of 17
JOB GUIDELINES

INFORMATION MANAGER

1. Reports to the JPIC and signs the staffing board.

2. As necessary, call-out additional personnel as follows:

   - EMA Contact Reps.
   - Rumor Control Coordinator
   - Media Monitoring Reps.

3. In the absence or unavailability of the Chief Company Spokesperson and JPIC Manager, reviews news announcements.

4. Participates in telephone discussions between the Chief Company Spokesperson and the Technical Advisors at the JPIC and EOF.

5. Maintains communications with the Information Coordinator to assure that news announcement approval, rumor control, media monitoring, and news media contact functions are being conducted properly and effectively. Also, reviews and signs, "Rumor Inquiry Form" (Attachment C).

6. Prior to any joint news briefings arranges a coordination meeting with the Chief Company Spokesperson and the State and County officials located at the JPIC.

7. Coordinates the issuing of news announcements with those of the State and County to ensure timeliness and consistency.

8. Oversees the EMA Contact Representatives to assure that the needs of the State and County representatives at the JPIC are being met.

9. Provide feedback to Media Monitoring Representatives, Media Contact Representatives, or Rumor Control Coordinator concerning how rumors or mis-information is addressed.

10. Review and approve JPIC News Briefing Summary Sheet (Attachment F) and give to the Rumor Control Coordinator for distribution.

ATTACHMENT A
Page 4 of 17
JOB GUIDELINES

INFORMATION COORDINATOR

1. Reports to the JPIC and signs the staffing board.

2. As necessary, call-out additional personnel as follows:

   - Information Coordinator Assistant
   - FirstEnergy Customer Services Department
     - 1-610-375-5043
     - 1-610-396-8588 (Goes to Voice Mail, leave message, then press #701)
   - Media Contact Reps. (3) Three

3. Serves as Information Manager until the Information Manager arrives.

Prior to JPIC activation:

1. Ensures staff has signed-in with Security.
2. Ensures staff completes the staffing board.
3. Notifies the JPIC Manager when the JPIC is fully staffed and can be activated.
4. Requests that the Nuclear Communications Manager at the EOF transmit the Initial Notification Form and all news announcements that have been approved and distributed.

JPIC activation:

1. Informs the ERM or Assistant, Sr. Nuclear Communications Representative and EOF staffs via telephone that the JPIC is activated.
2. Obtains current news announcements from the EOF and verbally notifies EOF Nuclear Communications Manager of JPIC receiving and reviewing of news announcement.
3. Collects all news announcements that were approved prior to JPIC activation and ensures distribution to JPIC staff.
4. Continually ensures that news announcements are being provided to the State, County and Federal agencies either through telephone communications or hard copy transmission.
5. Ensures that the status boards in the Government and Work Rooms are continuously updated with emergency events.
6. Maintains ongoing communications with First Energy Corporate Communications informing them of emergency events. (Listed in Attachment B)
7. Continually directs rumor control activities and investigates rumors. Assures the Information Manager reviews and approves responses to rumors per Attachment C.

   a. After review and approval by the Information Manager, provide a copy of approved Rumor Inquiry form to the Rumor Control Coordinator.

ATTACHMENT A
Page 5 of 17
JOB GUIDELINES

INFORMATION COORDINATOR (CONTINUED)

JPIC activation:

8. Consults with the Information Manager and fulfills requests as needed.

9. If necessary, ensures that a second shift is called-out, in conjunction with Support Services (EOF).

10. Maintains an event log of all communications and activities and issues the log to the Emergency Preparedness Section at the conclusion of the emergency.

11. Collects event logs from JPIC at the conclusion of the emergency and forwards the logs to the Emergency Preparedness Section.

12. Ensures distribution of news announcements to JPIC staff.

13. Via telephone, inform the EPIO staff at the EOF and the FirstEnergy Customer Services Department that the JPIC has been activated.

ATTACHMENT A
Page 6 of 17
JOB GUIDELINES

INFORMATION COORDINATOR - ASSISTANT

1. Reports to the JPIC and signs the staffing board.

2. Ensures the staff completes the staffing board and notifies the Information Coordinator when the JPIC is fully staffed.

3. Maintains and updates the status boards in the Government and Work Rooms with emergency events.

4. Maintains a log of the Information Coordinator's activities.

5. Ensures Media Monitors, Media Contact Representatives, and the Rumor Control Coordinator receive all news announcements.

6. Collects event logs from JPIC staff at the conclusion of the emergency and forwards the logs to the Information Coordinator.

ATTACHMENT A
Page 7 of 17
JOB GUIDELINES

JPIC TECHNICAL ADVISOR

1. Reports to the JPIC and signs the staffing board.

2. Maintains frequent contact with the EOF Technical Advisor to obtain up-to-the-minute information on plant status.

3. Keeps the Chief Company Spokesperson, JPIC Manager and Information Manager informed of the plant status and actions being taken to achieve plant stability and recovery.

4. Ensures that the Chief Company Spokesperson and the Information Manager are included in telephone discussions of plant status information with the EOF, as appropriate.

5. Takes written notes as needed to accurately convey information from the EOF Technical Advisor to the Chief Company Spokesperson, Information Manager or Information Coordinator.

6. Seeks information from the EOF Technical Advisor as requested by the Chief Company Spokesperson, JPIC Manager or Information Manager.

7. Consults with JPIC staff, as requested, in the interpretation and clarification of news announcements and other information regarding plant status and actions being taken to achieve plant stability and recovery.

ATTACHMENT A
Page 8 of 17
JOB GUIDELINES

EMERGENCY MANAGEMENT AGENCY (EMA) CONTACT REPRESENTATIVE

1. Reports to the JPIC and signs the staffing board.

2. Contacts the designated EMA State and County Public Information Officers, listed in the EP Resource Manual, and informs them that the Joint Public Information Center has been activated.

3. Provides a call-back number (use your phone number) for the EMA's use to obtain information regarding plant and on-site status.

4. Provides plant status information via news announcements to the County or State Public Information Officers at the JPIC.

5. Keeps the Information Manager apprised of County and State public announcements and news announcements.

6. Provides liaison between Company and County and State Public Information Officers for logistical and ongoing administrative needs within the JPIC.

7. Keeps EMA's apprised of incident classification changes, status board changes and relevant rumor control activity as directed by the Information Coordinator.

8. Maintains a log during an emergency of all contacts, time of contact, along with any other pertinent information.

9. Following an emergency, issues a report to the Information Manager regarding emergency response activities.

10. Ensures that News Announcements issued by the States are provided to Administrative Support for distribution at the JPIC. (Same distribution as FENOC News Announcements.

ATTACHMENT A
Page 9 of 17
JOB GUIDELINES

MEDIA CONTACT REPRESENTATIVES

1. Reports to the JPIC and signs the staffing board.

2. Provides logistical information (location of plant, lodging near plant, etc.) to the media.

3. Answers basic media inquiries related to the emergency. Detailed inquiries are logged and given to the Information Coordinator for follow-up. Information regarding station events/activities should be given to the media only after it has been released via a news announcement or News Briefing.

4. Directs the media on where to obtain news announcements issued to the wire service.

5. Reports rumor information to the Rumor Control Coordinator using the Rumor Inquiry Form (Attachment C).

6. Maintains a log during an emergency of all contacts, time of contact, along with any other pertinent information.

7. Refers all inquiries regarding protective measures for public to appropriate County emergency management agency, per EPP/IP 9.5, Attachment 2.

8. Refers all industry calls requesting news announcements to the INPO Nuclear Network (Attachment B).

9. Rumor Control Coordinator to assign a number to form before processing.

10. At the conclusion of the emergency, provides recorded information and logs to the Information Coordinator.

ATTACHMENT A
Page 10 of 17
JOB GUIDELINES

MEDIA MONITORING GUIDELINES

1. Reports to the JPIC and signs the staffing board.

2. Monitors local radio and TV stations and reports to the Information Coordinator through the Rumor Control Coordinator any information, which appears to be misleading or incorrect. Stations to be periodically monitored are:

RADIO	TV
KDKA - 1020 AM (Pittsburgh)	KDKA-TV Channel 2 (Pgh, Pa)
WKQV - 1410 AM (Pittsburgh)	WKBN - Channel 27 (Youngstown, OH)
WBVP - 1230 AM (Beaver Falls)	CNN (Atlanta, GA)
WMBA - 1460 AM (Ambridge)	
WWVA – 1170 AM (Wheeling)	
WOVK – 98.7 FM (Wheeling)	
WVNP – 89.9 FM (WV Public Radio)	
WKBN - 570 AM (Youngstown, OH)	

3. Completes Rumor Inquiry Form (Attachment C) and submits it to the Rumor Control Coordinator.

4. Receives rumor control information from the Information Coordinator, or designee, through the Rumor Control Coordinator, as appropriate, and monitors media accordingly.

5. Maintains a log of all incorrect information with time and source.

6. Receives information from written news announcements and from Media Relations Coordinator on upcoming interviews and coverage and monitors accordingly.

7. At the conclusion of the emergency, provides recorded information and logs to the Information Coordinator.

ATTACHMENT A
Page 11 of 17
JOB GUIDELINES

RUMOR CONTROL COORDINATOR - JPIC

1. Reports to the JPIC and signs the staffing board.

2. Receives and records all requests for information, points of clarification, and rumored information and assigns a number to the Rumor Inquiry Form.

3. Reports information to the Information Coordinator using the Rumor Inquiry Form (Attachment C) for follow-up.

4. Receives corrected, approved "Rumor Inquiry Forms", (Attachment C) from the Information Coordinator for distribution to the Media Contact Reps. and the Media Monitoring Reps.

5. Maintains a log of all rumors received and sources.

6. Records News Briefing Summary Sheets.

7. Obtains Information Manager's approval on News Briefing Summary Sheets.

8. Provides the approved JPIC News Briefing Summary Sheet (Attachment F) to the Media Contact Representatives and the Media Monitoring Representatives.

9. At the conclusion of the emergency, provides recorded information and logs to the Information Coordinator.

ATTACHMENT A
Page 12 of 17
JOB GUIDELINES

MEDIA RELATIONS COORDINATOR

1. Reports to the JPIC and signs the staffing board.

2. Calls out the Technical Briefer to report to the JPIC, if needed.

3. Continually observes the operation of the Joint Public Information Center and recommends changes or improvements to facilitate media briefings.

4. Advises Chief Company Spokesperson (through the JPIC Manager, if available) and points out potential questions to be answered in upcoming news briefings.

5. Coordinates requests from news media. This may include:

   a. Arranging media tours to designated locations near the plant for photographic and filming purposes;
   b. Recommending spokespersons and arranging media interviews with company officials;
   c. Coordinating special parking requirements for national network or other trailers, etc.
   d. Obtaining permission from plant security for aerial photography;
   e. Providing press kits, photos, diagrams, etc., as requested.

6. Works with the Logistics Coordinator to ensure that the media briefing area at the JPIC is fully functional.

7. Semi-annually reviews and updates press kits at the JPIC.

8. Ensures that news announcements and biographies are distributed in the JPIC media briefing area.

9. Maintains a log of all news announcements, (Federal, State, County and Utility) distributed to the mass media from the JPIC and maintains a copy of each news announcement.

10. Ensures that microphones are turned on prior to each news briefing.

11. Compiles and issues a report to the Information Coordinator at the conclusion of the emergency.

ATTACHMENT A
Page 13 of 17
JOB GUIDELINES

TECHNICAL BRIEFER

1. Reports to the JPIC and signs the staffing board.

2. Attends all news briefings to obtain information on the current status of various plant systems.

3. Consults with the JPIC Technical Advisor as needed on questions and requests for information related to systems affected by an emergency.

4. Answers media questions between news briefings concerning descriptions of plant systems and operating characteristics of these systems.

NOTE:

INFORMATION GIVEN TO THE NEWS MEDIA IS LIMITED TO DESCRIPTIONS OF THE OPERATION OF PLANT SYSTEMS. SINCE THE DISCUSSION ON ACTUAL PLANT CONDITIONS AND ACTIONS BEING TAKEN TO ACHIEVE PLANT STABILITY IS THE RESPONSIBILITY OF THE CHIEF COMPANY SPOKESPERSON, THE TECHNICAL BRIEFER WILL NOT SPECULATE ON SUCH MATTERS OR POTENTIAL FUTURE EVENTS.

5. Explains plant systems by using the plant visual schematics that are available in the Media Presentation Room.

6. Serves as advisor to the JPIC Staff on any technical matter.

ATTACHMENT A
Page 14 of 17
JOB GUIDELINES

LOGISTICS COORDINATOR

1. Reports to the JPIC and signs the staffing board.

2. As necessary, call out additional personnel as follows:

   - Administrative Support (JPIC)
   - Engineering Communications Representative
   - Security Coordinator (JPIC)

3. Assures the timely delivery and set-up of all equipment and display material required for emergency response operation, including equipment that is stored at other locations.

4. Notifies Security Coordinator to initiate security measures at the JPIC properties.

5. Arranges for the accommodation of news trailers, and other media or corporate transportation equipment.

6. Assures the set-up of sufficient communications equipment at the JPIC.

7. Maintains supervision of all logistics during an emergency at the JPIC properties and acts as a liaison with the management of the JPIC.

8. Maintains a quarterly check and test of all JPIC equipment and reports any changes or problems to the Emergency Preparedness Section.

9. Maintains up-to-date checklists and procedures for JPIC set-up and operation, revising quarterly. Also maintains current forms for JPIC use during emergency response.

10. Coordinates with the EOF Support Services Manager for JPIC clerical support and 24-hour staffing.

11. Coordinates synchronizing the JPIC clock with the EOF/TSC clocks.

12. Compiles and issues a report of all emergency response logistics to the JPIC Manager at the conclusion of the emergency.

ATTACHMENT A
Page 15 of 17
JOB GUIDELINES

SECURITY COORDINATOR

1. Reports to the JPIC and signs the staffing board.

2. Implements security requirements for JPIC.

3. Assures that security officers are stationed at proper locations as outlined in Attachment D of this procedure.

4. Assures that only individuals with proper credentials as outlined in the EPIO Emergency Preparedness Plan are admitted to the JPIC.

5. Contacts local or State law enforcement officials should their assistance be required.

6. Maintains a log of personnel entering and leaving the JPIC.

7. Compiles and issues a report to the Logistics Coordinator at the conclusion of the emergency.

ATTACHMENT A
Page 16 of 17
JOB GUIDELINES

ENGINEERING COMMUNICATIONS REPRESENTATIVE

1. Reports to the JPIC and signs the staffing board.

2. Provides technical expertise and resolves telecommunication problems associated with emergency response operations.

3. Assists with the set-up, operation, and maintenance of all telecommunications equipment, as required.

4. Coordinates operation and maintenance of the necessary telecommunications channels and equipment that is required between the JPIC and outside governmental facilities (i.e., PEMA, Harrisburg Office).

5. Assures the timely acquisition of additional emergency telecommunications engineering support personnel, if necessary.

6. Compiles and issues a report to the Logistics Coordinator at the conclusion of the emergency.

ATTACHMENT A
Page 17 of 17
JOB GUIDELINES

ADMINISTRATIVE SUPPORT

NOTE:

ONLY approved news announcements are to be available or given to the media.

1. Reports to the JPIC and signs the staffing board.

2. Operates-facsimile and copy equipment.

3. Requests necessary materials, resources, personnel from Logistics Coordinator to ensure the smooth flow of information within and from the JPIC.

4. Distributes Company news announcements to JPIC staff and external locations in accordance with Attachment B.

5. Aid the State, County and NRC in distributing their news announcements at the JPIC in accordance with Attachment B.

6. Compiles and issues a report to the Logistics Coordinator at the conclusion of the emergency.

INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 3
NEWS ANNOUNCEMENT DISTRIBUTION FOR: JOINT PUBLIC INFORMATION CENTER

NOTE:

ONLY approved news announcements are to be available or given to the media.

Distribution checklist for all news announcements issued by BVPS, state, county and federal agencies as a result of an emergency at BVPS.

News Announcement # _____

_____ Revision received _____ Revision Distributed
_____ Time received _____ Time Distributed

FAX TO:

_____	PR Newswire	888-568-0898
_____	EOF Nuclear Communications Staff	724-682-5994
_____	First Energy Corporate Communications	330-384-4539
_____	Beaver County EMA	724-775-1163
_____	Columbiana County EMA	330-424-9267
_____	Hancock County OES	304-564-4031
_____	Pennsylvania EMA	717-651-2021
_____	Ohio EMA	614-889-7183
_____	West Virginia OES	304-344-4538
_____	NRC (Region I, Public Affairs)	610-337-5241
_____	NRC (Washington D.C.)	301-415-2234
_____	INPO	770-644-8549
_____	Nuclear Energy Institute	202-739-8000

ATTACHMENT B
Page 2 of 3
NEWS ANNOUNCEMENT DISTRIBUTION FOR: JOINT PUBLIC INFORMATION CENTER

NOTE:

ONLY approved news announcements are to be available or given to the media.

Distribution checklist for all news announcements issued by BVPS, state, county and federal agencies as a result of an emergency at BVPS.

News Announcement # _____

_____ Revision received _____ Revision Distributed
_____ Time received _____ Time Distributed

HAND CARRY TO:

_____ Information Manager
_____ Information Coordinator
_____ Information Coordinator Assistant
_____ Technical Advisor
_____ Chief Company Spokesperson
_____ Rumor Control Coordinator
_____ Media Relations Coordinator
_____ Media Monitoring Reps. (3)
_____ Post in JPIC (1)
_____ Copies For Reporters (as needed)
_____ Technical Briefer
_____ Emergency Management Contact Representatives (11)
- _____ Pennsylvania Rep. (5)
- _____ Ohio Rep. (3)
- _____ West Virginia Rep. (3)

ATTACHMENT B
Page 3 of 3
NEWS ANNOUNCEMENT DISTRIBUTION FOR: JOINT PUBLIC INFORMATION CENTER

TELEPHONE CONTACTS

1. NRC REGION 1 PUBLIC AFFAIRS 610-337-5330
   General Office number 610-337-5000
   WASHINGTON D.C. PUBLIC AFFAIRS 310-415-8200
   Weekends 310-415-7000
2. PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY
   General Number 717-651-2001
3. BEAVER COUNTY EMERGENCY MANAGEMENT AGENCY
   ..... 724-775-1049 or
   724-775-1700
   Public Information (Site Area or General Emergency) 724-775-0344
4. OHIO EMERGENCY MANAGEMENT AGENCY .....
   614-889-7153
   Public Affairs Officer 614-889-7000
5. COLUMBIANA COUNTY EMERGENCY MANAGMENT AGENCY
   ..... 330-424-9725 or
   330-424-7005
   Public Information (Site Area or General Emergency) 330-424-0861
6. WEST VIRGINIA OFFICE OF EMERGENCY SERVICES
   304-558-5380
7. HANCOCK COUNTY OFFICE OF EMERGENCY SERVICES
   304-564-4040
   ..... or 4041
8. FIRST ENERGY CORPORATE
   Todd Schneider, Mgr., FENOC Communications 330-315-7290
   Pager 440-733-0728
   Home 330-659-6216
   Ralph J. DiNicola, FE Corporate Public Relations 330-384-5939
   Home 330-896-3380
   Fax 330-384-4539
   Corporate Communications On-Call
   Answering (Evenings and Weekends) 888-900-5200
9. INSTITUTE OF NUCLEAR POWER OPERATIONS (INPO)
   Communications Division 770-644-8216
   EP Command Center 1-800-321-0614
10. Nuclear Energy Institute (NEI) 202-739-8000
    Fax 202-785-4113
11. EDISON ELECTRIC INSTITUTE 24-hr. Press Hotline 800-424-8897
    General Switchboard 202-778-6400

INTENTIONALLY BLANK

ATTACHMENT C
Page 1 of 1
A5.715GH

RUMOR INQUIRY FORM JOINT PUBLIC INFORMATION CENTER

Rumor Received by: Number: _____

☐ Media Monitoring Rep.

☐ Media Contact Reps. ☐ Other _____

Date:_____ Time Received:_____

Rumor Source: ☐ News Media ☐ Employee ☐ Public ☐ Other _____

Name of Source:_____

Affiliation, if any:_____

Nature of Rumor:_____

_____

_____

Person Recording Rumor: _____

Response: _____

_____

Source of Response: _____

Information Mgr. (or designee)
Approval Signature:_____

Forward copy to: ☐ Rumor Control Coordinator. ☐ Information Coordinator.

☐ Media Monitoring Reps. ☐ Media Contact Reps.

☐ JPIC Mgr. ☐ Inform. Mgr.

INTENTIONALLY BLANK

ATTACHMENT D
Page 1 of 2
SECURITY PROCEDURES

A. PURPOSE:

This procedure provides guidance for controlling access and maintaining order within the Joint Public Information Center (JPIC) in support of the BVPS Emergency Preparedness Plan.

B. SCOPE:

These procedures shall apply to all individuals, both employees and non-employees, who are present at the JPIC when that facility is operated in support of the BVPS Emergency Preparedness Plan.

C. PROCEDURES:

1.0 The Security Coordinator for the JPIC shall be directly responsible for implementing and enforcing these procedures when the JPIC is activated in support of the BVPS Emergency Preparedness Plan, as well as during appropriate periods immediately prior to such activation when these procedures are deemed necessary to establish and maintain order at the JPIC.

2.0 To assist the Security Coordinator in implementing and enforcing these procedures, if needed, security officers will be positioned at various locations to control access and to help maintain order. All personnel within the JPIC must adhere to these procedures, and must accept the authority of the security officers to restrict access in compliance with these procedures.

3.0 Disorderly persons shall be removed from the JPIC, if such action is necessary to maintain proper order, and the Security Coordinator shall establish liaison with local law enforcement agencies to provide appropriate support for this purpose.

4.0 Properly identified Beaver Valley Power Station employees will be allowed access to the JPIC as necessary for the performance of their duties, but all BVPS employees must wear their company ID cards in the chest area in a visible manner whenever they are inside the JPIC when these procedures are in effect. Any questions regarding employee access or the proper display of company ID cards should be referred to the Security Coordinator.

ATTACHMENT D
Page 2 of 2
SECURITY PROCEDURES

5.0 All non-employees must enter through the marked doors at the front (North side) of the JPIC, and must be logged-in at the appropriate registration desk after presenting proper credentials from the organizations they represent. Any non-employees without proper credentials must have their access authorized by an appropriate Beaver Valley Supervisor. Each non-employee will be issued one of the following types of access badges when he or she is logged-in, and must wear the badge in the chest area in a visible manner at all times while within the JPIC:

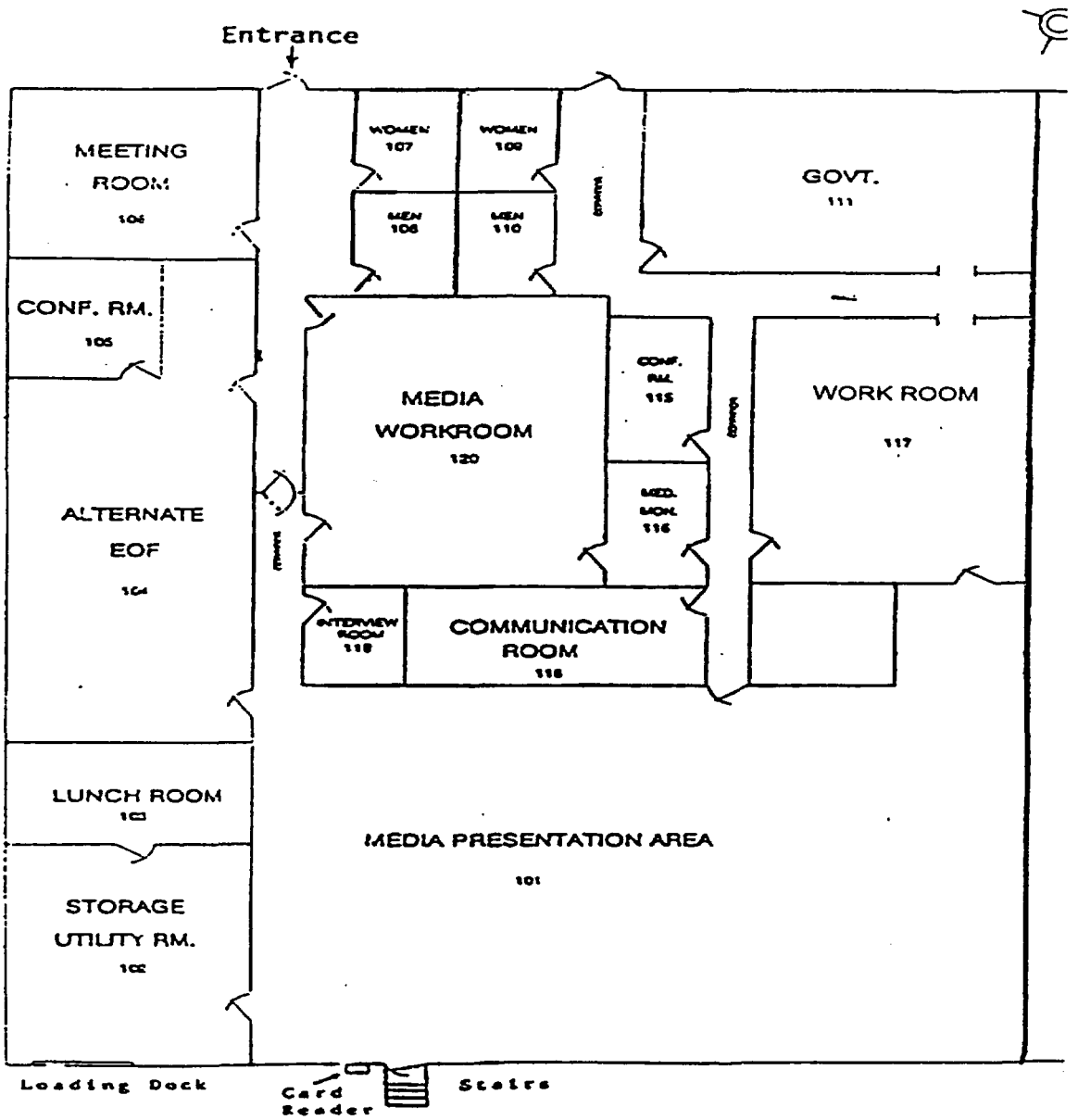
a) News Media Representatives - pink cards
b) Governmental Representatives - blue cards
c) Visitors - white cards

6.0 Prior to departing the JPIC for any reason, all non-employees must return their access badges and be logged-out. Any lost access badges must be reported to the Security Coordinator as soon as the loss is noticed.

7.0 Certain non-employees may be authorized limited access to the JPIC loading dock and adjacent Lunch Room for logistical purposes (i.e., delivery and removal of food, supplies, trash, etc.), without being logged-in or issued access badges, but such access must be specifically authorized by the Security Coordinator. A security officer or other designated representative of the Security Coordinator must accompany such persons at all times while they are within the JPIC. Under no circumstances will such persons be admitted to any areas of the JPIC other than the loading dock and adjacent Lunch Room.

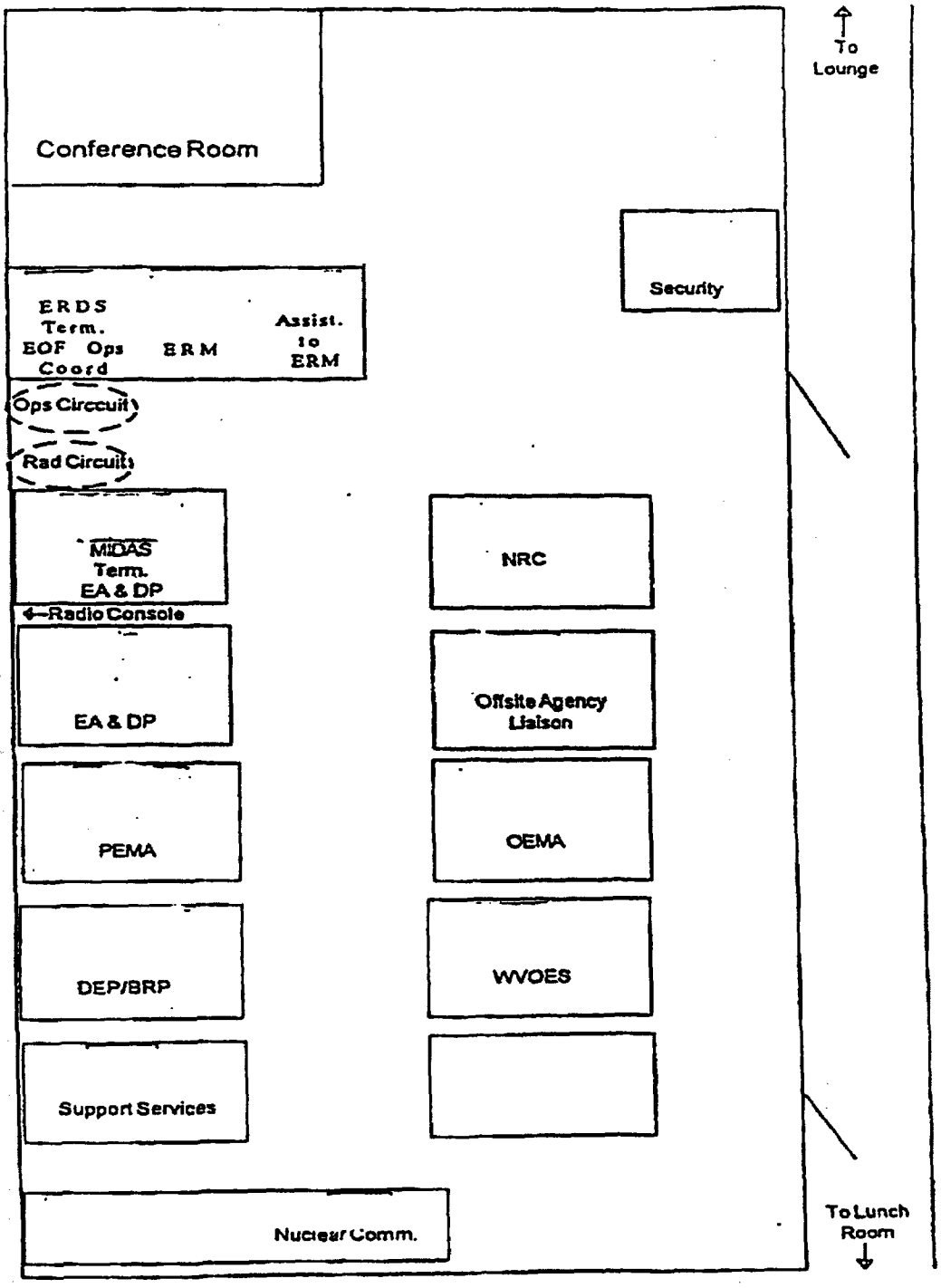
8.0 If the Alternate EOF is activated, Alternate EOF personnel will enter the JPIC Building per EPP/IP 1.6, Attachment 2. BVPS Security will send a representative to be stationed inside the JPIC Building, but outside the Alternate EOF door. BVPS Security will control access to the Alternate EOF.

ATTACHMENT E
Page 1 of 4
JPIC FLOOR PLANS



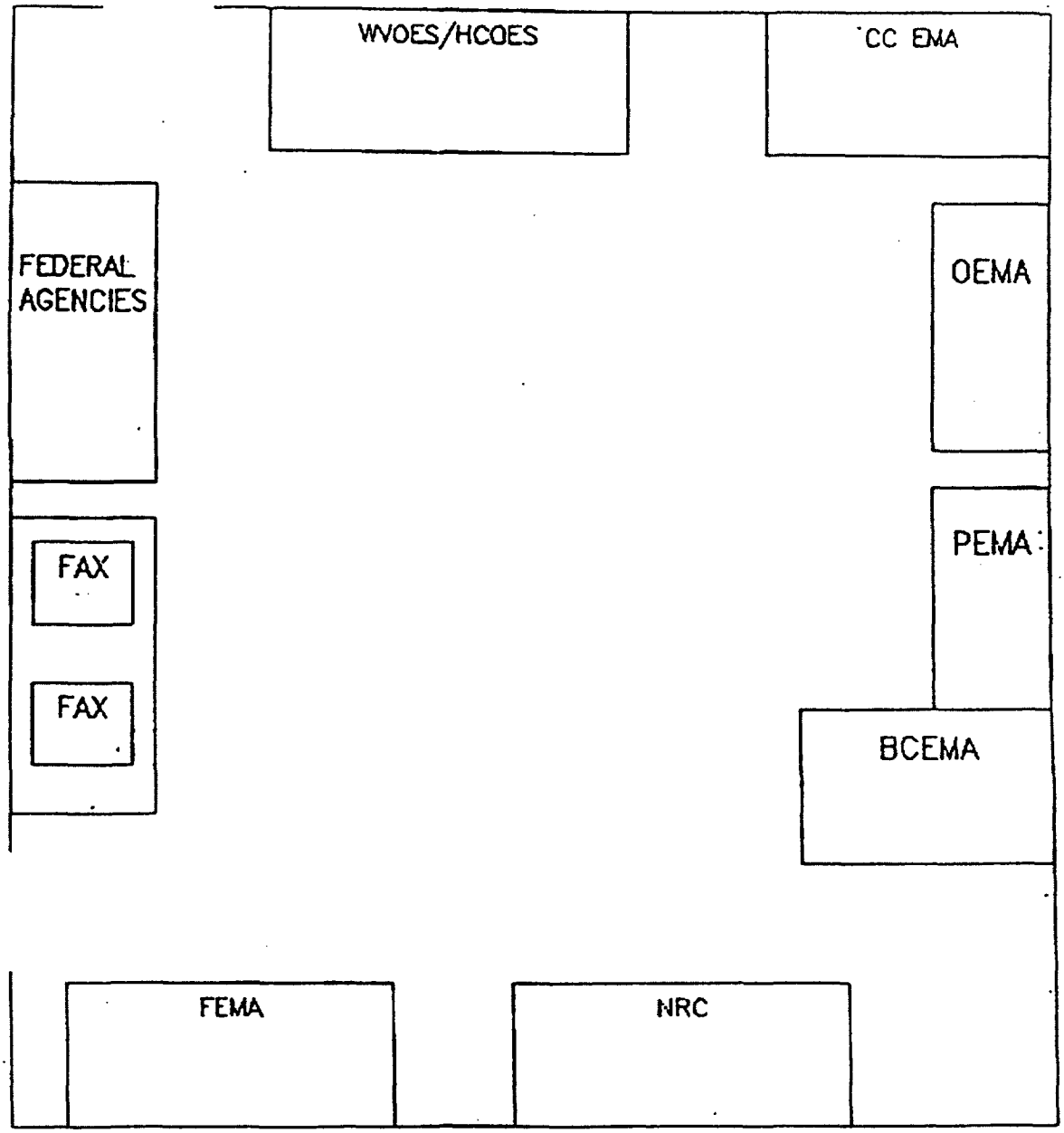
ATTACHMENT E
Page 2 of 4
JPIC FLOOR PLANS

JPIC AEOF



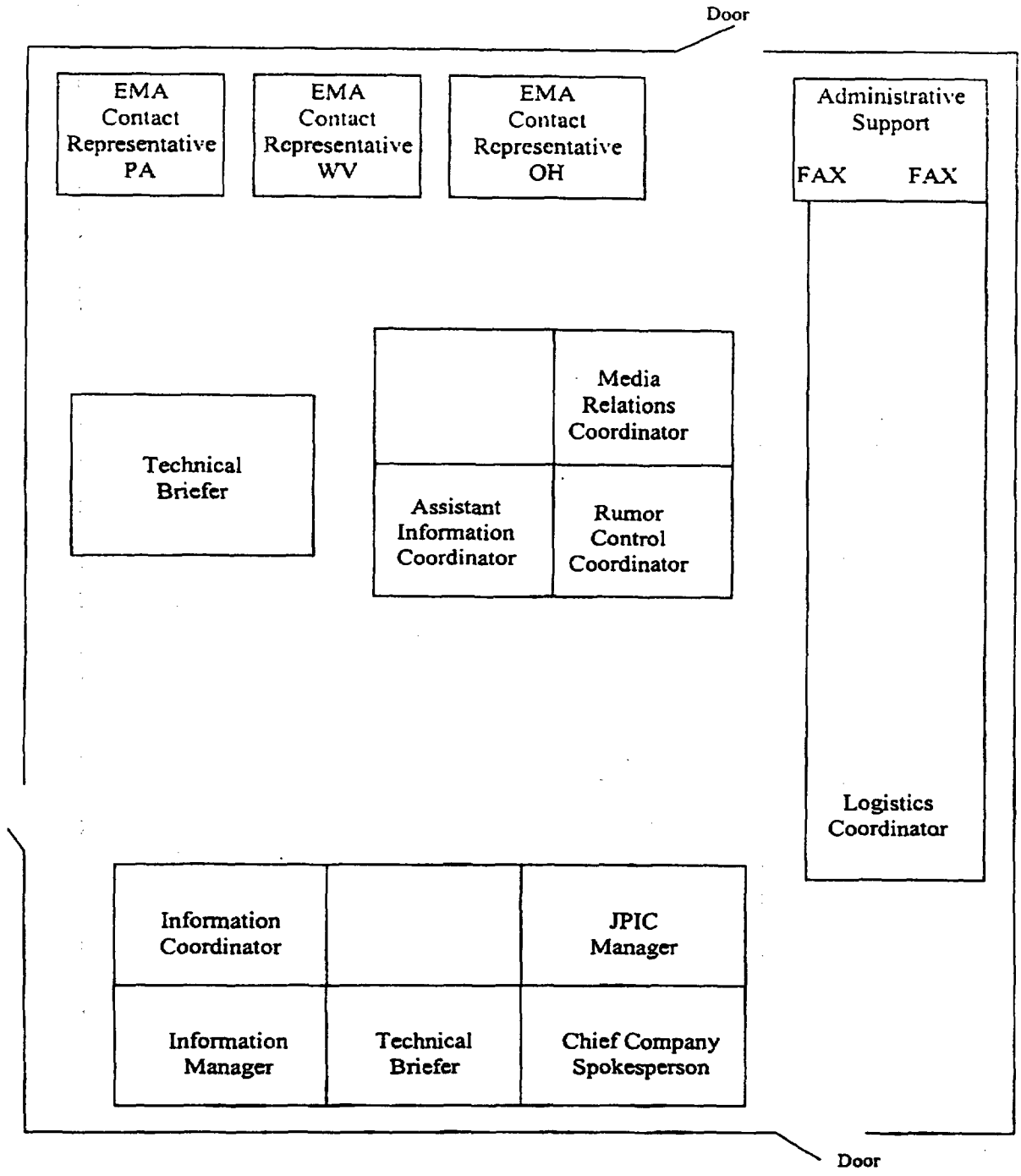
ATTACHMENT E
Page 3 of 4
JPIC FLOOR PLANS

JPIC GOVERNMENT ROOM



ATTACHMENT E
Page 4 of 4
JPIC FLOOR PLANS

JPIC WORK ROOM



ATTACHMENT F
Page 1 of 2
JPIC NEWS BRIEFING SUMMARY SHEET

Beaver Valley Unit No. 1 ☐ **Unit No. 2** ☐ **(Check one)**

Date: _____ **Time:** _____ **News Briefing Number:** _____

Chief Company Spokesperson: _____

Event Classification: **Category:** _____

Time Declared: _____

Cause: _____

Radiation Being Released? ☐ Yes ☐ No

Refer all questions regarding offsite radiation readings to respective County/State Emergency Operations Center.

Injured Person: **Name:** _____ **Time of Injury:** _____

Injury: _____

Where: _____

Present Condition: _____

Why Occurred: _____

Where is Injured Taken _____

Significant Plant Equipment Failure: _____

What/When/Why _____

_____

_____

Significant Noteworthy Item: _____

_____

_____

Rumor Control Coordinator Preparer: _____

JPIC Information manager Approval: _____

ATTACHMENT F
Page 2 of 2
JPIC NEWS BRIEFING SUMMARY SHEET

- This form is to be used by the JPIC Rumor Control Coordinator to document major or significant new information being provided by the JPIC Chief Company Spokesperson or JPIC Manager during a JPIC News Briefing that has changed since the last JPIC News Briefing. This information will be provided to the JPIC Media Contact Representative at the conclusion of a JPIC News Briefing for their use in disseminating event information over the telephones.

- The information needs to be **ACCURATE** and **CONCISE**. If you are unsure of the information, either confirm the information or omit the information.

- Only fill out the applicable information. Don't include information, which you would not expect to see in a News Announcement.

- This information is a secondary method to the written News Announcements as the way that Media Contact Representatives obtain information to be released over the telephones. This information may provide early summary notification to Media Contact Representatives before the issue is available on a written News Announcement. The written News Announcements will normally provide the details or additional extent of condition information on issues for the Media Contact Representatives to use.

  NOTE: This is not intended to be a substitute for the News Release Information, just an early warning of significant changes which you should see coming in a future News Announcement.

- Information should never be supplied to the Media Contact Representatives for their use over a telephone UNTIL AFTER it has been released via a written News Announcement or via a JPIC News Briefing.

- Any questions on this form or on the information to be supplied with this form should be brought to the JPIC Manager or JPIC Information Manager.

Beaver Valley Power Station

Unit 1/2

1/2-EPP-IP-ANNEX-C

Major Injury Involving Radioactive Contamination - The Medical Center, Beaver

Document Owner
Manager, Emergency Preparedness

Revision Number	10
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

TABLE OF CONTENTS

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 REFERENCES AND COMMITMENTS 1

3.1 References 1
3.2 Commitments 1

4.0 RECORDS AND FORMS 1

4.1 Records 1
4.2 Forms 2

5.0 RESPONSIBILITIES 2

5.1 Emergency Patient Center and Other Attending Physicians 2
5.2 BVPS Radiological Protection Personnel 2

6.0 PRECAUTIONS AND LIMITATIONS 2

6.1 Precautions 2
6.2 Limitations 2

7.0 PREREQUISITES 2

8.0 PROCEDURE 2

8.1 Procedure to be followed by hospital personnel 2
8.2 Procedure for internal contamination/overexposures 7

ATTACHMENT A THE MEDICAL CENTER EMERGENCY TEAM PHONE NUMBERS 9
ATTACHMENT B BACKGROUND INFORMATION 11
ATTACHMENT C STANDING ORDERS FOR HOSPITAL PERSONNEL THE MEDICAL CENTER 15

1.0 PURPOSE

1.1 This plan addresses the general actions to be taken by The Medical Center (TMC) to prepare for and treat a radiologically contaminated injured patient received from either the Beaver Valley Power Station Unit 1 or Unit 2.

2.0 SCOPE

2.1 This plan is primarily directed towards minimizing the spread of contamination from the patient to hospital personnel, the general public, and to hospital facilities and equipment. The plan only generally addresses the medical treatment to be rendered. The applicability of this plan to other categories of patients received from the Beaver Valley Power Stations is as follows:

- This plan does not apply to injured patients, received from either of the two facilities, who are not contaminated. These patients will be handled in accordance with normal TMC Emergency Patient Center directives.

- For patients who are injured and have been reported to have serious internal contamination or who have been seriously overexposed, but who are not contaminated will be handled in accordance with normal TMC Emergency Patient Center directives.

- Nuclear facility personnel who have been seriously contaminated or overexposed, but who have no other life-threatening physical injury will not normally be transferred to TMC for treatment. If because of unforeseen circumstances such patients are received, they should be handled in accordance with the general guidance of this plan and TMC Emergency Patient Center directives.

2.2 Attachment B to this plan provides background information relevant to radiological contamination and the handling of contaminated injured personnel.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 None

3.2 Commitments

3.2.1 None

4.0 RECORDS AND FORMS

4.1 Records

4.1.1 None

4.2 Forms

4.2.1 None

5.0 RESPONSIBILITIES

5.1 Emergency Patient Center and Other Attending Physicians

5.1.1 Although this plan specifically addresses the handling of contaminated injured personnel, the basic hospital policies and directives for emergency treatment of patients remain unchanged. It is understood, the provisions of this plan notwithstanding, that the treatment of affected individuals will be carried out under the direction of Emergency Patient Center and other attending physicians as would be the case for any emergency injury requiring treatment.

5.2 BVPS Radiological Protection Personnel

5.2.1 Will be limited to that of assisting hospital personnel with the monitoring and control of radioactive contamination at the direction of the attending physician.

5.2.2 Will be responsible for the handling and disposal of any radioactive wastes created and the restoration of affected TMC facilities and equipment to their pre-emergency condition.

6.0 PRECAUTIONS AND LIMITATIONS

6.1 Precautions

6.1.1 None

6.2 Limitations

6.2.1 None

7.0 PREREQUISITES

7.1 None

8.0 PROCEDURE

8.1 Procedure to be followed by hospital personnel

8.1.1 Notification

8.1.1.1 Upon notification by Control Room personnel from Beaver Valley Power Station Unit 1 or Unit 2, the Unit Clerk or Charge Nurse will:

8.1.1.1.1 Call Beaver Valley Power Station to confirm the event has occurred (724-643-8002).

8.1.1.1.2 Notify the Emergency Patient Center physician who will ascertain:

- Number of patients
- Expected time of arrival
- At this point the E.P.C. physician will tell the Charge Nurse to begin preparation for nuclear decontamination.
- Types of injuries and contamination
- Any other pertinent information

8.1.1.1.3 Begin the call sequence in Attachment A.

8.1.1.1.4 The E.P.C. physician and a nurse shall immediately begin to don the protective clothing. (See 8.1.2.4) The Charge Nurse shall designate personnel to begin preparation of designated Treatment Room as noted in "B" below. Assistance in this shall be provided by Maintenance and Clinical Engineering and/or Security personnel.

8.1.1.1.5 After 3 P.M., the supervisory personnel of the following departments shall be paged to assist:

- Engineering
- Security
  - Security shall direct bystanders and media persons to the Education and Research Department. ALL information concerning the patient(s) shall be released through the Public Affairs Department.
- Nursing

8.1.2 Preparation of Treatment Area

8.1.2.1 Radiological protection supplies are stored in the nuclear response supply cabinet in the designated storage area.

NOTE:	The Ambulance Entrance will be closed to accommodate the contaminated/injured patient.

NOTE:	The Beaver County 9-1-1 dispatchers will provide instructions to all other ambulances concerning entrance into the Emergency Room.

8.1.2.2 Prepare area at the entrance to the designated Treatment Room and/or other rooms, as necessary.

8.1.2.2.1 Lay down a travel path from this area to the expected ambulance arrival point; J-Flex may be used for this path. The path should be wide enough to roll the ambulance stretcher on.

8.1.2.2.2 Place a J-flex stepout area immediately outside the doorway to the designated Treatment Room. This area should be approximately 5 feet by 7 feet.

8.1.2.2.3 Demarcate this entire area using the stanchions and yellow/magenta colored ribbon provided to prevent unauthorized access.

8.1.2.2.4 Place frisker on mayo stand immediately outside of the Treatment Room door and within the ribbon boundary area.

8.1.2.2.5 Above mentioned floor covering should be secured with tape where necessary to prevent slip or trip hazard.

8.1.2.3 Prepare the designated Treatment Room area.

8.1.2.3.1 Remove all unnecessary equipment from the room.

8.1.2.3.1.1 Equipment with potential for use should also be removed and staged nearby in the unaffected area.

8.1.2.3.2 A large enough area to handle the number of patients and/or the entire floor area should be covered. Use the precut floor covering provided in the nuclear response supply cabinet.

8.1.2.3.3 Secure the floor covering as necessary using tape to prevent tripping hazards.

8.1.2.3.4 Avoid unnecessary air movement in room - shut down ventilation if possible.

8.1.2.3.5 Place yellow/magenta tape on the floor at the doorway to the room, this represents the contaminated area boundary.

8.1.2.3.6 If the entrance into the adjacent room is to be open, a tape and ribbon boundary should be erected at that doorway to prevent unauthorized entry into designated Treatment Room.

8.1.2.3.7 A large yellow bag should be set up inside the room at the step-off pad, to hold used protective garments from exiting personnel (gloves, shoe covers, etc.).

8.1.2.3.8 Several large yellow bags may be strategically placed within the room to accommodate trash (bandages, clothing, etc.).

8.1.2.3.9 Additional large yellow bags should be available in the step-out area near the room entrance for used protective garments.

8.1.2.4 All personnel responsible for giving direct patient care or having to enter designated Treatment Room, will don appropriate clothing:

- Tyvek jumpsuit
- Hightop tote boots
- Gloves - 2 pr. - (surgical, clear)
  - First pair under cuffs of gown
  - Second pair over cuffs of gown
- Mask/Shield
- Pull hood on tyvek suit over head

8.1.2.5 Restrict access to the corridor and emergency entrance covered area until such time as the patient is in designated Treatment Room and the area has been monitored by BVPS personnel.

8.1.3 Patient(s) Arrival

8.1.3.1 Patient taken into designated Treatment Room and placed in disposable decon bed by Emergency Patient Center personnel.

8.1.3.1.1 If emergency lateral C-spine or A-P chest x-rays are immediately required, portable x-ray machine can be situated outside the door with the tube extended into the room. Cassettes shall be covered with plastic bags.

8.1.3.1.2 TMC personnel, under direction of BVPS personnel will, starting at Emergency Patient Center entrance, roll up the J-flex runner at entrance areas.

8.1.3.1.2.1 J-flex is rolled from underside and immediately placed into large plastic bags - top is sealed with radiation warning or tuck tape and tagged.

8.1.3.1.2.2 Area will be monitored by BVPS personnel.

8.1.3.1.3 Patient will be cared for as conditions warrants. All contamination will be removed with assistance of BVPS personnel when physician so indicates. Patient's condition will guide the procedure to be followed for decontamination.

8.1.3.1.4 All persons will be frisked and monitored with assistance from BVPS personnel, prior to leaving the designated Treatment Room.

8.1.3.1.5 Patient will be moved as condition indicates, and upon recommendation of attending physician and BVPS Radiological Protection representatives.

8.1.3.1.6 BVPS personnel will supervise the recovery and disposal of material and equipment, and restoration of the room to its pre-emergency condition.

8.1.4 Minimizing the Exposure of Hospital Personnel

8.1.4.1 Overexposed or Internally Contaminated, Injured Patients. In the case of a patient exposed to excessive external radiation, or to internal contamination, no measures are necessary to protect TMC premises or personnel.

8.1.4.2 Contaminated Patient. The potential radiation exposure to hospital personnel from a contaminated patient will, of necessity, depend on the nature and extent of the contaminant. A potentially more serious problem would be the transfer of contamination from the patient to TMC personnel. This transferred contamination, if not removed, could enter the individual's body via a break in the skin, or by ingestion or inhalation. Techniques to minimize the spread of contamination include:

8.1.4.2.1 All personnel entering the designated area should wear appropriate clothing, preferably disposable, as directed.

8.1.4.2.2 Air conditioning systems and forced air heating systems in the treatment areas should be shut off, if possible, to minimize air currents which could spread contamination to other areas.

NOTE:	If it is not possible to shut off ventilation, a piece of plastic should be taped over the appropriate louver(s).

8.1.4.2.3 Splashing of decontamination solutions should be avoided.

8.1.4.2.4 TMC personnel should move to clean areas only after monitoring and release by BVPS personnel.

8.1.4.2.5 Patient will be moved only upon recommendation of attending physician and BVPS Radiological Control representative.

8.1.4.2.6 Supplies are passed from clean areas to potentially contaminated areas. REVERSE FLOW SHOULD NOT BE ALLOWED, UNLESS MATERIALS HAVE BEEN SURVEYED AND FOUND TO BE CLEAN.

8.1.4.2.7 The entry into the designated area, of all nonessential personnel including family, visitors, and administrative personnel, will be restricted until decontamination is complete and the patient has been moved to a ward or private room.

8.1.4.2.7.1 Family may be placed in Family Waiting Area with appropriate resources and support available.

- Social Workers
- Pastoral/Ministry

8.1.4.2.8 TMC personnel working on patient should keep their hands away from exposed skin (e.g., forehead) on their own bodies.

8.1.4.2.9 All yellow bags should be "J" sealed when 3/4 full.

8.1.4.2.10 All waste material must be bagged for disposal by BVPS personnel

8.2 Procedure for internal contamination/overexposures

8.2.1 Internal Contamination

8.2.1.1 BVPS Radiological Control representative should obtain nose swipes for subsequent radiological evaluation before any indicated decontamination is performed.

8.2.1.2 All biological material (urine, sputum, feces, blood) taken from the patient should be retained for subsequent radiological evaluation. Such material should be considered to be contaminated until released by the BVPS Radiological Control representative.

8.2.1.3 Obtain biological samples for analysis at the direction of the attending physician. Blood, urine, and fecal samples should be collected as soon as possible, and periodically thereafter.

8.2.1.4 Perform other treatment as directed by attending physician. As outlined in Attachment B, such treatment may include:

8.2.1.4.1 Administration of diuretics and/or laxatives.

8.2.1.4.2 Administration of chelating agents.

8.2.2 External Overexposure

8.2.2.1 Treatment of the overexposed individual will depend on, the magnitude of the overexposure, and the extent and location of the exposure site. Treatment for the radiation injury need not be immediate. Treatment for accompanying side-effects should be in keeping with normal medical practice.

8.2.2.1.1 Blood samples should be taken and laboratory analyses performed as soon as possible to provide biological indicators of the extent of the radiation damage. As a minimum, the following data should be obtained:

8.2.2.1.1.1 Differential and absolute white blood cell and platelet counts; hematocrit reading; blood picture; hemoglobin

8.2.2.1.1.1.1 The tests identified in Step 8.2.2.1.1.1 should be repeated several times during the first six hours, for exposures in excess of 50-100 rem, and less often for lower exposures.

8.2.2.1.1.2 Electrolyte balance

8.2.2.1.1.3 Lymphocyte culture chromosome analysis

8.2.2.2 All urine should be collected for analysis, until otherwise directed by attending physician. Samples should not be mixed and should be clearly labeled as to date and time of collection.

8.2.2.3 The patient should be surveyed for radiation, and appropriate exposure control methods established for TMC personnel if necessary.

ATTACHMENT A
Page 1 of 1
THE MEDICAL CENTER EMERGENCY TEAM PHONE NUMBERS

Maintenance - Ext. 2225, 2234
Clinical Engineering - Ext. 1230, 1238
Security - Ext. 1076
Administrator - Ext. 2025, 2010
Chairman, Disaster Committee - Ext. 1438, 1416
Public Relations - Ext. 2040
Laboratory - Ext. 1890
Nuclear Medicine - Ext. 1535
Radiology - Ext. 1678

E.P.C. ADMIN. TECHS CALL SEQUENCE

*	1.	Maintenance	Ext. 2225, 2234
*	2.	Security	Ext. 1076
	3.	Administrator, or Admin. On-call	Ext. 2025, 2010
	4.	Chairman, Disaster Committee	Ext. 1438, 1416
	5.	Public Relations	Ext. 2040
	6.	Laboratory	Ext. 1890
	7.	Nuclear Medicine	Ext. 1535
		- Nuclear Medicine will contact Radiation Safety Officer	
	8.	Radiology	Ext. 1678

* Call for assistance with room setup and to secure area.

NOTE: The message shall be as follows: "We have received word that we can expect _____ patients contaminated with radioactive material. We expect them to arrive in _____ minutes."

NOTE: If above do not answer directly, have them paged STAT on overhead loudspeaker.

NOTE: The hospital switchboard and office maintain a current copy of this phone list. Refer to listing for up-to-date numbers.

INTENTIONALLY BLANK

ATTACHMENT B
Page 1 of 4
BACKGROUND INFORMATION

I. SITUATION

At the Beaver Valley Power Station Unit 1 & 2, as would be expected at any industrial facility, there exists the possibility of a range of personnel accidents. These accidents range from simple injuries which can be treated by onsite first aid personnel, to more severe accidents that require immediate medical attention to save the life of the injured person.

Many individuals at the Beaver Valley Power Station work with radioactive materials or work in areas where exposure to radiation is probable. The probability of an accident, in which the radiation exposure received by the individual or the amount of loose radioactive material (radioactive contamination) on the individual's skin or inside his body (by ingestion or inhalation) would constitute the primary health risk is very low. However, other personnel injuries requiring offsite medical attention must be expected to occur. Further, it is prudent to assume that some of these injuries may occur in radioactively contaminated areas and that the urgency for medical treatment may not permit removal of the contamination prior to transfer to an offsite hospital. The urgency associated with injury takes precedence over the urgency associated with the contamination and that the first aim must be to save the life and preserve the vital functions of the patient. Treatment of the contamination comes only second.

Nonetheless, since radioactive contamination and the attendant radiation exposure from contamination poses some health risk, it is necessary to make arrangements to control the treatment of such injured contaminated persons, in order to minimize unnecessary exposure to hospital personnel, ambulance personnel, and other patients or members of the general public who might come in contact with the injured person. This plan establishes the controls necessary to minimize the spread of radioactivity while ensuring access to timely medical treatment for contaminated injured personnel.

II. SPECIALIZED TREATMENT

FirstEnergy has made arrangements with the Department of Radiation Health of the University of Pittsburgh and the UPMC-Presbyterian for medical advice and specialized medical treatment of serious radiological injuries. Arrangements have also been made to obtain medical advice for the treatment of radiological injuries to Beaver Valley Power Station personnel.

The Medical Center, Beaver is the facility to which personnel will be transferred for injuries compounded by radioactive contamination, in which the radioactive contamination or radiation exposure is not the primary medical concern. (For example, a bone fracture with skin contamination).

ATTACHMENT B
Page 2 of 4
BACKGROUND INFORMATION

Arrangements have been made with the Radiation Emergency Response Program (RERP) for medical services beyond that which are available at the Medical Center, Beaver. The RERP program uses the facilities of the Department of Radiation Health and the UPMC-Presbyterian. This facility should be used only in those instances in which the radiation exposure and/or radioactive contamination with or without any other associated injury, represents the major health hazard.

The Medical Center, Beaver personnel may call upon the specialized advice of the Department of Radiation Health in the treatment of contaminated-injured personnel from the Beaver Valley Power Station. Telephone numbers are listed in the Beaver Valley Power Station Emergency Plan Implementing Procedures and are also posted at the E.R. Nurse's Station and designated Treatment Room.

III. RADIOLOGICAL INJURIES

Radiological injuries can be broadly categorized into three classes. These are excessive overexposure to external radiation, ingestion or inhalation of radioactive material into the body (internal contamination) in excess of regulatory standards, and external skin contamination. These injuries can occur individually or in combination with the others.

A. Indications for Action

1. External Exposure

The primary indication for action will be the initial estimate of the exposure reported by the facility where the exposure occurred. This exposure can involve the whole body (whole body exposure) or parts of the body such as the hands or feet (partial body exposure).

a. Whole Body Exposure Greater than 5 but less than 10 rem

The action in this exposure range is administrative. No medical treatment or evaluation is necessary.

b. Whole Body Exposure Between 10 and 25 rem

The details of the abnormal exposure should be brought to the attention of a radiation medicine physician. The need, extent, and nature of any clinical, biological, or biochemical examinations will be determined by the physician.

ATTACHMENT B
Page 3 of 4
BACKGROUND INFORMATION

c. Whole Body Exposure Greater than 25 rem

The patient should be examined by a radiation medicine physician.

d. Partial Body Exposure

Treatment for partial body exposure, other than that to the face, is seldom urgent, thus there is time for consultation with radiation medicine physicians.

The higher the estimated dose, the more important becomes the need for accurate dose estimation through a combination of clinical, biological, and physical assessments. It is generally accepted that clinical signs, namely nausea, vomiting, erythema, fever, anorexia, and biological signs, primarily leukopenia, are unlikely to occur at whole body exposures less than 100 rem and are unlikely to be observed for 3-4 hours. Therapy, other than psychotherapy, is generally not required until whole body exposure is between 100-600 rem.

2. Internal Contamination

Internal contamination can enter the body by the processes of inhalation or ingestion, or external contamination can enter the body via an opening in the skin. It is unlikely that an accurate clinical or biological estimate can be made without specialized radiochemical analyses. The best estimate of the exposure will necessarily come from the nuclear facility.

If internal contamination greater than the annual limit of intake is suspected or reported, a radiation medicine physician should be consulted, or the patient transferred to a specialized treatment center. (See Section II of this Attachment).

The treatment will, of course, depend on the circumstances of the internal contamination. Generally attempts are made to minimize the uptake of the radioactive material by the body by accelerating biological elimination (laxatives and diuretics), chemical removal (chelating agents), or by prevention of uptake by administration of stable isotopes of the same species as the radioisotopes ingested or inhaled (potassium iodide to prevent thyroid uptake of Iodine-131). Biological samples are necessary to evaluate the amount of radioactive material eliminated, in order to estimate the internal radiation exposure.

ATTACHMENT B
Page 4 of 4
BACKGROUND INFORMATION

3. External Contamination

It is unlikely that the nature or extent of radiological contamination on a worker from either nuclear facility would pose a danger to the worker or the hospital staff. Normally, the presence of radioactive contamination will simply indicate the need for special procedures to avoid the spread of contamination through the treatment area and to those responsible for handling the patient.

When skin contamination exists, decontamination must be performed. However, any severe physical injuries (e.g., trauma and burns) are likely to be more important than possible radiation injuries. The basic and most important procedure is simply to wash with soap and copious quantities of water. Care must be taken not to abrade the skin, and decontamination by this procedure must stop before the appearance of skin abrasion. In the case of a contaminated wound, washing with copious amounts of water should be done and bleeding should be promoted. Care must be taken not to transfer contamination from the skin to the wound in the course of aseptic cleansing.

B. Additional Guidance

1. Management of Persons Accidentally Contaminated with Radionuclides, National Council on Radiation Protection (NCRP-65)

2. Manual on Early Medical Treatment of Possible Radiation Injury, International Atomic Energy Agency Safety Series No. 47

3. The Principles and General Procedures for Handling Emergency and Accidental Exposures of Workers, International Commission on Radiological Protection (ICRP-28)

ATTACHMENT C
Page 1 of 3
STANDING ORDERS FOR HOSPITAL PERSONNEL THE MEDICAL CENTER

FIRSTENERGY NUCLEAR OPERATING COMPANY
Beaver Valley Power Station

Background

The content of the standing orders addresses the general actions to be taken by hospital personnel for a radiation accident case from BVPS. Variations in standing orders may occur due to (a) changing procedures, (b) improved radiation-measuring equipment and (c) isolation space.

Standing Orders

The hospital will receive initial information from the BVPS Control Room in the event of an accident case. When an accident has occurred at a plant, the Radiation Technician, supervisor, coworkers, and the patient should be able to inform the rescue squad of the nature of the accident, type or radiation exposure or radioactive contamination involved, and possible areas of the body that may be affected. The Radiation Technician and/or supervisor will come to the hospital with the patient and can be a source of immediate consultation.

Upon leaving the Beaver Valley Power Station, the ambulance service will alert the hospital Emergency Patient Center to expect a patient who may have had radiation exposure and/or radioactive contamination. It is the responsibility of the Charge Nurse on duty on receipt of notification of the momentary arrival of a case involving radiation exposure and/or contamination to:

(1) Notify the Emergency Patient Center Medical Director, Director and Assistant Director of Emergency Services, Nurse Management and the responsible staff physician or nurse and clinical technicians.

(2) The Medical Director may seek expert professional consultation for technical management of the case by calling UPMC-Presbyterian at:

- (412) 647-3333 (ER) or 647-3597.

(3) Get the RM-14 Frisker. (BVPS supervisor and/or Radiation Technician with radiation monitoring equipment responding with ambulance will assist in monitoring the victim, ambulance, and/or hospital contamination.)

ATTACHMENT C
Page 2 of 3
STANDING ORDERS FOR HOSPITAL PERSONNEL THE MEDICAL CENTER

(4) If contamination is suspected, prepare treatment area for radiation and/or contamination victim.

(a) Set up RM-14 frisker.

(b) Remove non-essential equipment from treatment area.

(c) Cover floor of treatment area.

(d) Secure ventilation system.

(e) Establish controlled area boundaries from ambulance area to treatment area.

(f) Set up receptacle for contaminated items.

(g) All personnel entering the treatment area and/or handling contaminated patient should don protective clothing (i.e., hood, jumpsuit, gloves, radiological shoe covers, mask).

On ambulance arrival, the responsible physician or nurse should:

(1) If patient is seriously injured, give emergency life-saving assistance immediately.

(2) The BVPS representative will survey patient on stretcher for contamination (preferably as stretcher is removed from the ambulance).

(3) If possible contamination is involved, save all clothing, bedding waste material, and metal objects (i.e., jewelry, belt buckles, etc.) for disposal by BVPS personnel. Save each in appropriate containers. Label with name, body location, time and date. All biological material (urine, sputum, feces, blood) taken from the patient should be retained and labeled for subsequent radiological evaluation.

(4) Decontamination should start, if medical status permits, with cleansing and scrubbing the area of highest contamination first. If an extremity alone is involved, clothing may serve as an effective barrier and the affected limb alone may be scrubbed and cleansed. Initial cleansing should be done with soap and warm water. If the body as a whole is involved or clothing generally permeated by contaminated material, showering and scrubbing will be necessary. Pay special attention to hair parts, body orifices, and body folds areas. Wash water waste should be retained for radiological evaluation by BVPS.

ATTACHMENT C
Page 3 of 3
STANDING ORDERS FOR HOSPITAL PERSONNEL THE MEDICAL CENTER

If a wound is involved, prepare and cover the wound with self-adhering disposable surgical drape. Cleanse neighboring surfaces of skin. Seal off cleansed areas with self-adhering disposable surgical drapes. Remove wound covering and irrigate wound with sterile water, catching the irrigating fluid in a basin. Washings can be marked and handled as described in Rule 3 above. Each step in the decontamination should be preceded and followed by monitoring and recording of the location and extent of the contamination.

(5) Save physician's, nurses', and attendants' scrub or protective clothing, as described for patients. Nurses, doctors, and attendants must follow the same monitoring and decontamination routine as the patients.

(6) The physician in attendance, if confronted with a grossly contaminated wound with dirt particles and crushed tissue, should be prepared to do a preliminary simple wet debridement. An emergency minor surgical set should be used. Further measurements may necessitate sophisticated wound counting detection instruments supplied by the consultant who will advise if further definitive debridement is necessary.

The nurse can be of tremendous aid in preventing fear and hysteria. The nurse's calm, friendly greeting, attitude, and conversations with the patient are most important psychologically.