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May 27, 2003

L-03-081

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
Implementing Procedures (Volume 2)

In accordance with 10 CFR Part 50.4, this letter forwards recent revisions of the Beaver Valley Power Station Emergency Preparedness Plan Implementing Procedures (Volume 2) 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 Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement at 724-682-5284.

Sincerely,


L. William PearceEnclosure 1 – Summary of Changes
Enclosure 2 – Procedure revisions

c: Mr. T. G. Colburn, NRR Senior Project Manager (w/o Enclosure 2)
Mr. D. M. Kern, 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 (Volume 2)

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

EPP/Implementing Procedures:

EPP/I-2 "Unusual Event"

Revision 19 added additional guidance via new Steps E.1.5 through E.1.5.2, for conducting Site Assembly/Accountability during a security event. A new Attachment 2 "Determination of Airborne Radioactive Releases During Emergencies" was incorporated for use in Steps E.1.3, E.1.9, and E.2.2. Also, three Condition Reports were added as new references.

EPP/I-3 "Alert"

Revision 18 revised Steps E.1.5.1 and E.1.5.2 regarding guidance for conducting Site Assembly/Accountability during a security event. A new Attachment 2 "Determination of Airborne Radioactive Releases During Emergencies" was incorporated for use in Steps E.1.3, E.1.11, E.2.2, and E.2.6. Also, two Condition Reports were added as new references.

EPP/I-4 "Site Area Emergency"

Revision 18 revised Steps E.1.5.1 and E.1.5.2 regarding guidance for conducting Site Assembly/Accountability during a security event. A new Attachment 2 "Determination of Airborne Radioactive Releases During Emergencies" was incorporated for use in Steps E.1.3, E.1.12, E.2.2, and E.2.9. Also, two Condition Reports were added as new references.

EPP/I-5 "General Emergency"

Revision 19 revised Steps E.1.5.1 and E.1.5.2 regarding guidance for conducting Site Assembly/Accountability during a security event. A new Attachment 2 "Determination of Airborne Radioactive Releases During Emergencies" was incorporated for use in Steps E.1.3.1, E.1.12, E.2.2.1, and E.2.9. Also, two Condition Reports were added as new references.

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX**INSTRUCTIONS**

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

IMPLEMENTING PROCEDURES**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 18
1.5	Operations Support Center (OSC) Activation, Operation and Deactivation	Revision 14
1.6	Emergency Operations Facility (EOF) Activation, Operation and Deactivation	Revision 16
1.7	Emergency Response Organization (ERO) Teams	Revision 10

**CONTROLLED
BVPS UNIT 3**

REVISION 56

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX**EPP/IP****2 Series - Assessment**

2.1	Emergency Radiological Monitoring	Revision 10
2.2	Onsite Monitoring for Airborne Release	Revision 12
2.3	Offsite Monitoring for Airborne Release	Revision 13
2.4	Offsite Monitoring for Liquid Release	Revision 8
2.5	Emergency Environmental Monitoring	Revision 10
2.6	Environmental Assessment and Dose Projection Controlling Procedure	Revision 14
2.6.1	Dose Projection - Backup Methods	Revision 11
2.6.2	Dose Projection - ARERAS/MIDAS With FSAR Defaults	Revision 12
2.6.3	Dose Projection - ARERAS/MIDAS With Real-Time Inputs	Revision 12
2.6.4	Dose Projection - ARERAS/MIDAS With Manual Inputs	Revision 13
2.6.5	Alternate Meteorological Parameters	Revision 10
2.6.6	Dose Projections By Hand Calculation - Known Isotopic Release	Revision 6
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**EPP/IP****2 Series - Assessment**

2.6.11	Dose Projection - Miscellaneous Data	Revision 10
2.6.12	Dose Projection -ARERAS/MIDAS With Severe Accident Assessment	Revision 9
2.7	Liquid Release Estimate	Revision 6
2.7.1	Liquid Release Estimate - Computer Method	Revision 9

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 7
3.4	Emergency Respiratory Protection	Revision 8
3.5	Traffic and Access Control	Revision 9

EPP/IP**4 Series - Offsite Protective Actions**

4.1	Offsite Protective Actions	Revision 16
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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 8
5.4	Emergency Personnel Monitoring	Revision 7

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX**EPP/IP****6 Series - Re-entry/Recovery**

- | | | |
|-----|---|-------------|
| 6.1 | Re-entry to Affected Areas -
Criteria and Guidance | Revision 9 |
| 6.2 | Termination of the Emergency and Recovery | Revision 10 |

EPP/IP**7 Series - Maintaining Emergency Preparedness**

- | | | |
|-----|--|-------------|
| 7.1 | Emergency Equipment Inventory
and Maintenance Procedure | Revision 14 |
| 7.2 | Administration of Emergency Preparedness
Plan, Drills and Exercises | Revision 9 |

EPP/IP**8 Series - Fire Fighting**

- | | | |
|-----|--|-------------|
| 8.1 | Fires in Radiologically Controlled Areas | Revision 10 |
|-----|--|-------------|

EPP/IP**9 Series - Nuclear Communications**

- | | | |
|-----|---|-------------|
| 9.1 | Emergency Public Information
Emergency Response Organization
Controlling Procedure | Revision 11 |
| 9.2 | Reserved | |
| 9.3 | Activation, Operation and Deactivation
of the Emergency Public Information Organization
Emergency Operations Facility (EOF) | Revision 4 |
| 9.4 | Activation, Operation and Deactivation
of the Joint Public Information Center (JPIC) | Revision 9 |
| 9.5 | Activation, Operation and Deactivation
of the Penn Power Customer Account
Services Department | Revision 7 |

EPP/IP**10 Series - Corporate Response**

- | | | |
|------|--|------------|
| 10.1 | Emergency Response Organization
Corporate Support | Revision 3 |
|------|--|------------|

EPP/IMPLEMENTING PROCEDURES - EFFECTIVE INDEX**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 9
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

EPP/I-2

Unusual Event

Document Owner
Manager, Emergency Preparedness

Revision Number	19
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

CONTROLLED
BVPS UNIT 3

Beaver Valley Power Station		Procedure Number: EPP/I-2	
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EFFECTIVE INDEX

Issue 8 Rev.	0	OSC Approved	3-12-87
	1	OSC Approved	8-13-87
	2	OSC Approved	6-20-88
	3	OSC Approved	9-22-88
	4	Non-Safety Revisions	2-23-89
	5	Non-Safety Revisions	1-12-90
Issue 9 Rev.	0	Non-Intent Revision	10-9-90
	1	Non-Intent Revision	10-11-91
	2	Non-Intent Revision	5-15-92
	3	Non-Intent Revision	12-29-92
	4	OSC Approved	1-27-93
Rev.	5	Non-Intent Revision	1-1-94
Rev.	6	Non-Intent Revision	10-14-94
Rev.	7	Non-Intent Revision	5-26-95
Rev.	8	Non-Intent Revision	10-31-95
Rev.	9	Non-Intent Revision	12-8-95
Rev.	10	Non-Intent Revision	10-23-96
Rev.	11	Non-Intent Revision	1-29-97
Rev.	12	Non-Intent Revision	6-17-97
Rev.	13	OSC Approved	10-15-97
Rev.	14	OSC Approved	4-1-98
Rev.	15	Non-Intent Revision	4-12-00
Rev.	16	Non-Intent Revision	8-8-01
Rev.	17	Non-Intent Revision	12-12-01
Rev.	18	Simple Change	8-15-02
Rev.	19	Simple Change	4-30-03

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A. PURPOSE

This procedure describes the actions to be taken once an Unusual Event has been declared at the Beaver Valley Power Station. Actions to be completed by the Control Room are outlined in Section E.1.0 while TSC actions are outlined in Section E.2.0.

B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Beaver Valley Power Station Operating Manuals.
- 3.0 Beaver Valley Power Station Health Physics Manual.
- 4.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 5.0 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 6.0 Condition Report #971737.
Condition Report #993020.
Condition Report #00-2202
Condition Report #00-4309
Condition Report #01-0693
Condition Report #01-4468
Condition Report #02-04015
Condition Report #02-04155
Condition Report #02-05012
Condition Report #02-03442
Condition Report #02-06895
Condition Report #02-09224-15

C. RESPONSIBILITY

The Emergency Director (Shift Manager (SM) of the affected Unit, until properly relieved by a designated alternate) has the responsibility and authority for implementation of the actions prescribed in this instruction. If the Shift Manager (SM) of the affected Unit is unavailable, the Shift Manager (SM) of the unaffected Unit **SHALL** assume the role of the Emergency Director until relieved. Or, if the occurrence is common to both Units (e.g., Security compromise, acts of nature), the Senior Shift Manager (SM) (per 1/2-OM-48.1.A.III.J) **SHALL** assume the role of Emergency Director.

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D. ACTION LEVELS/PRECAUTIONS

1.0 Action Levels

- 1.1 An Unusual Event has been declared based on the occurrence of off-normal events which could indicate a potential degradation of the level of safety of the plant per EPP/I-1.

2.0 Precautions

- 2.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change, or as more definitive information is obtained.
- 2.2 Corrective actions to contend with the situation and to mitigate possible deterioration in plant conditions **SHALL** be conducted in accordance with the BVPS Operating Manual while simultaneously implementing this Instruction.
- 2.3 Following the declaration of an Unusual Event, Federal regulations required notification of offsite authorities **MUST** be made within fifteen minutes. (Refer to EPP/IP 1.1)
- 2.4 Contaminated/injured personnel no longer constitute an emergency declaration. However, BVPS is required to notify the NRC per 10CFR50.72.
- 2.5 Faxing of the Initial Notification Form is NOT the "Official" Notification to the Offsite Agencies and does NOT meet the 15-minute notification criteria. The 15-minute notification criteria is met and "Official" notification made when a representative of BVPS speaks with a representative of each Offsite Agency.

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E. PROCEDURE

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).

1.0 Control Room SM/ED actions:

NOTE:

Routine/Batch Releases at either Unit need not be discontinued upon declaration of an Unusual Event, **UNLESS** the release is the cause of the Unusual Event.

CHECK

- 1.1 Implement corrective actions. ☐

NOTE:

Initial Notifications to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

- 1.2 Obtain Notification Package from the sealed EPP drawer. ☐

NOTE:

Attachments and Forms designated with an * are included in the Unusual Event Notification Package.

- 1.3 Complete Form EPP-IP-1.1.F.01*, INITIAL NOTIFICATION FORM. Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred. ☐

- 1.4 Begin notifications of Offsite Agencies per EPP-IP 1.1 – On-shift Communicator. ☐

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CHECK

1.5 If the Emergency Response Organization (ERO) has previously been notified, **PROCEED TO STEP 1.6.12**, or continue: ☐

1.5.1 For Security Events, discuss with Security personnel site accessibility AND if Site Assembly/Accountability should be conducted, (may be postponed if event is a threat to personnel safety). ☐

1.5.2 Determine if the site is accessible for ERO response. ☐

1.6 A SRO (from the unaffected Unit) **SHALL** complete the blanks below and notify the Emergency Response Organization (ERO). ☐

"This is _____ (Your Name)
at Beaver Valley Power Station. At _____ (time)
hrs.,
Unit _____ has declared an UNUSUAL EVENT due to:

(Choose One and Continue)

a. DO NOT report to your emergency facility. I repeat, DO NOT report to your emergency facility.

b. Report to your emergency facility. I repeat, report to your emergency facility.

OR

c. Report to your alternate emergency facility. I repeat, report to your alternate emergency facility."

~~1.6.1 If ERO activation is NOT required, proceed to step 1.6.12 to send a Lotus Notes message only.~~ ☐

1.6.2 From a PAX phone, dial 4370. ☐

(Continued)

Beaver Valley Power Station

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EPP/I-2

Title:

Unit:

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CHECK

- 1.6.3 Interrupt the greeting by **IMMEDIATELY** entering **XXXXXX**.
- 1.6.4 When prompted, enter scenario number **XXXXXX**.
- 1.6.5 When prompted, verify scenario number (**9** for **YES** or **6** for **NO**).
- 1.6.6 When prompted "Do you want to record your on the fly message 1", **Press 9** for **YES** or **6** for **NO**.
- 1.6.7 When prompted "Enter on the fly number 1 segment ID or press star to record".
 - 1.6.7.1 **PRESS *** (A short delay will occur).
- 1.6.8 When prompted "Please speak your message after the tone", provide the information from Step 1.6 in your on the fly message.
 - 1.6.8.1 **PRESS** the **# Key** when done with message.
- 1.6.9 Review message, when prompted "Is that correct" (**Press 9** for **YES** or **6** for **NO**).
- 1.6.10 When prompted "You will queue scenario **XXXXXX**. It will now be sent. Are you sure this is what you want to do?" (**Press 9** for **YES** or **6** for **NO**)
- 1.6.11 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information:
 - Your name and title.
 - **EPP CODE WORD** _____.
 - An **UNUSUAL EVENT** has been declared.
 - ERO pagers have been activated. Call back at PAX _____ when pager activates.
 - Request Near Site Building Emergency Notifications be made.

(Continued)

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EPP/I-2

Title:

Unit:

1/2

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CHECK

1.6.12 From Lotus Notes, send a message to "beeper all call" with the information from E.1.6 above. Include if ERO is to report or not. (Limit 220 characters)

☐

1.7 Complete Form EPP-I-2.F.01*, UNUSUAL EVENT PAGE ANNOUNCEMENT FORM.

☐

1.8 Announce the Unusual Event Page Party Announcement.

☐

NOTE:

NRC notifications **MUST** be completed within 1 (one) hour of Emergency Declaration. (Satisfies 10CFR50.72)

1.9 Complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of the airborne release, if applicable.

☐

1.9.1 On-shift Communications and Records Coordinator to perform Follow-Up Notifications.

☐

1.10 Complete NRC FORM 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET.

☐

NOTE:

(Licensed) Personnel from the opposite Unit should be utilized to complete NRC notifications.

NRC Operations Center

800-532-3469

or

301-816-5100

FAX: 301-816-5151

1.10.1 Provide details from NRC Form 361, NRC EVENT NOTIFICATION WORKSHEET to the NRC.

☐

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CHECK

1.11 For Airborne release:

- 1.11.1 Complete EPP-I-2, Attachment 1*, OPERATIONAL INPUTS FOR DOSE ASSESSMENTS. ☐
- 1.11.2 Provide Attachment 2 to Health Physics personnel. ☐
- 1.11.3 Instruct Health Physics to initiate dose projections (EPP/IP 2.6). ☐
- 1.11.4 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3). ☐
- 1.11.5 Obtain Dose Projection results from Health Physics. ☐

1.12 For Liquid Release:

- 1.12.1 Obtain results from Health Physics personnel. ☐
- 1.12.2 Determine if Liquid Release protective action is required per EPP/IP 4.1 ☐
- 1.12.3 Notify downstream water treatment plants and relay PAR, if applicable, On-shift Communicator. ☐

1.13 Escalate Emergency Classification, if necessary. ☐

1.14 Terminate when termination criteria met per EPP/IP 6.2, Attachment 1*, TERMINATION GUIDELINES. ☐

2.0 TSC Emergency Director Actions (If activated): ☐

2.1 Coordinate with the Control Room to implement corrective actions. ☐

NOTE:

Attachments and Forms designated with an * are included in the Communications and Records Coordinator Notification Area.

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CHECK

2.2 Instruct the Communications and Records Coordinator to complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of the airborne release, if applicable.

☐

2.2.1 Review and approve completed Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM.

☐

2.3 Instruct the Communications and Records Coordinator to fax the completed Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM to the Offsite Agencies using the instructions located in the EPP Notification Book:

☐

NOTE:

NRC notifications **MUST** be completed within 1 (one) hour of Emergency Declaration. (Satisfies 10CFR50.72)

2.4 Instruct the TSC Operations Coordinator to complete NRC FORM 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET.

☐

2.4.1 Ensure that the worksheet is provided to the Operations Communicator manning the NRC ENS "RED" phone.

☐

2.4.2 Ensure that the details from NRC FORM 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET are provided to the NRC.

☐

2.5 For Airborne release:

2.5.1 Instruct EA&DP to initiate dose projections (EPP/IP 2.6).

☐

2.5.2 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3).

☐

2.5.3 Obtain Dose Projection results from EA&DP.

☐

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CHECK

2.6 For Liquid Release:

2.6.1 Obtain results from EA&DP personnel. ☐

2.6.2 Determine if Liquid Release protective action is required per EPP/IP 4.1. ☐

2.6.3 Instruct the Communications and Records Coordinator to notify downstream water treatment plants and relay the PAR, if applicable, per EPP-IP-1.1.F.02. ☐

2.7 Escalate Emergency Classification, if necessary. ☐

2.8 Terminate when termination criteria met per EPP/IP 6.2, Attachment. 1, TERMINATION GUIDELINES. ☐

F. FINAL CONDITIONS

1.0 On-Call ED/alternate has been contacted.

2.0 Initial and Follow-Up Notifications completed.

3.0 The Unusual Event has been terminated with normal station administration resumed or the emergency reclassified.

4.0 Event termination calls are completed per IP 1.1

G. ATTACHMENTS

1.0 Attachment 1, Operational Inputs For Dose Assessments

2.0 Attachment 2, Determination of Airborne Radioactive Releases During Emergencies

H. FORMS ASSOCIATED WITH THIS PROCEDURES

1.0 Records

1.1 Completed copies of Attachments listed below shall be routed to Manager, Emergency Preparedness prior to retention by Beaver Valley Records Center.

1.1.1 Attachment 1 Operational Inputs For Dose Assessment

2.0 Forms

2.1 EPP-I-2.F.01 - Unusual Event Announcement

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EPP/I-2

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Unit:

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Attachment 1 (1 of 2)

OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

To perform a dose projection, Health Physics personnel will require the following information:

- 1) Type of accident: (Circle One) If unknown, use (2) LOCA W/GAP Activity.
 - (1) **LOCA W/RCS Activity** - Loss of coolant accident and no greater than Tech Spec RCS Activity.
 - (2) **LOCA W/GAP Activity** - Loss of coolant accident and core exit thermocouples have exceeded values (e.g., core cooling, RED PATH) that may indicate damage to fuel cladding with ESF's available.
 - (3) **Design Basis LOCA** - Double ended shear of RCS piping, rapid RCS depressurization, minimum engineered safety features function.
 - (4) **LOCA W/Failed ESF's (TID14844)** - Double ended shear of RCS piping, rapid RCS depressurization, no engineered safety features function and loss of containment.
 - (5) **Small Line Break LOCA** - Loss of coolant accident via piping systems outside containment (i.e., letdown) and no greater than Tech Spec RCS activity.
 - (6) **RCCA Ejection** - Reactor control cluster ejection causes loss of coolant accident which results in 10% gap release.
 - (7) **Steam Generator Tube Rupture** - SG Tube rupture with offsite power not available and affected SG used for cooldown (condenser not available).
 - (8) **Fuel Handling Accident** - The drop of a single fuel bundle affecting another in the Fuel Handling Building.
 - (9) **Loss of AC Power** - Loss of offsite power, natural circulation cooldown.
 - (10) **Gas Waste System Failure** - Alarms or unplanned pressure loss from waste gas treatment/storage system.
 - (11) **Main Steam Line Break** - Technical Specification RCS activity, with accident induced primary-to-secondary leak.

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Attachment 1 (2 of 2)

OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

- 2) Time of plant trip or start of accident: _____.
- 3) Delay time between accident and start of release: _____ (Hours)
- 4) Expected, known, or default duration of release: _____ (Hours)
(If unknown, use one (1) hour as default value.)
- 5) Known or expected release pathway: (Circle One)

<u>Rel. Point</u>	<u>Unit 1</u>	<u>Unit 2</u>
RP 1	Ventilation Vent	Ventilation Vent Condensate Pol.
RP 2	SLCRS	SLCRS
RP 3	Process Vent	Decon Building Waste Gas Building
RP 4	Main Steam	Main Steam

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Attachment 2 (1 of 2)

DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Has ANY of the following occurred AND is directly related to the initiating event?

- ☐ Yes ☐ No Positive pressure in containment.

☐ Yes ☐ No ANY reactor trip or rapid shutdown.

☐ Yes ☐ No ANY secondary system steam release (e.g., via aux. feedwater turbine exhaust, SGADV, MSSV).

☐ Yes ☐ No ANY other event related indication of gas/vapor release from a system containing radioactive material.

☐ Yes ☐ No ANY radioactivity (other than naturally occurring, ie: Radon) detected by air sampling in site ventilation, buildings or areas, or offsite areas.

☐ Yes ☐ No ANY VALID increase in ventilation effluent or process radiation monitors (excluding the containment airborne monitors).

NO

**REPORT:
CONDITIONS
INDICATE
NO non-routine
radiological release is
occurring,
AND,
Check on the Initial
Notification Form:
"NO non-routine
radiological release in
progress."**

YES

Check on the Initial
Notification Form:
"An airborne non-routine
radiological release is in
progress."

VALID: Refer to Definitions in EPP/I-1a or b.

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DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Are ANY of the following conditions met?

- ☐ Yes ☐ No Airborne radioactivity field measurements (outdoors on or off-site) > background

☐ Yes ☐ No Unmonitored pathway open between a radioactive system and the environment

☐ Yes ☐ No Release with effluent monitor in high-high alarm (Unit 1 except SPING) OR high alarm (Unit 2, and Unit 1 SPING)

☐ Yes ☐ No Multiple pathway effluent monitor alarms of any level (alert, high or high-high)

☐ Yes ☐ No Secondary system steam release associated with accident condition (e.g., steam generator tube rupture, locked RCP rotor, rod control cluster ejection or main steam line break)

NO

REPORT: CONDITIONS INDICATE:

A non-routine minor release below Federally approved operating limits has occurred. Release is being monitored.

YES

REPORT:
CONDITIONS INDICATE:
Non-routine radiological release exceeding routine operational limits is occurring.

AND

Perform accident dose projection and report results in accordance with EPP/IP 2.6.

REPORT:

¹Thyroid 0.17 millirem maximum for each full hour of release

²TEDE 0.06 millirem maximum for each full hour of release

Actual total values will be calculated and provided **after** plant conditions have stabilized, and samples have been taken and analyzed. PAG values can not be reached at these levels.

¹Based on 1500 mrem/y site boundary, instantaneous particulate & iodine release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1b.

²Based on 500 mrem/y site boundary, instantaneous noble gas release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1a.

Beaver Valley Power Station

Unit 1/2

EPP-I-3

ALERT

Document Owner
Manager, Emergency Preparedness

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Level Of Use	General Skill Reference
Safety Related Procedure	Yes

CONTROLLED
BVPS UNIT 3

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A. PURPOSE

This procedure describes the actions to be taken in the event that an Alert Emergency has been declared at the Beaver Valley Power Station. Actions to be completed by the Control Room are outlined in Section E.1.0 while TSC actions are outlined in Section E.2.0.

B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Beaver Valley Power Station Operating Manuals.
- 3.0 Beaver Valley Power Station Health Physics Manual.
- 4.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 5.0 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 6.0 Condition Report #971737.
Condition Report #993020.
Condition Report #00-2202
Condition Report #00-4309
Condition Report #01-0693
Condition Report #01-4468
Condition Report #02-04015
Condition Report #02-04155
Condition Report #02-05012
Condition Report #02-03442
Condition Report #02-09224-15

C. RESPONSIBILITY

The Emergency Director (Shift Manager (SM) of the affected Unit, until properly relieved by a designated alternate) has the responsibility and authority for implementation of the actions prescribed in this instruction. If the Shift Manager (SM) of the affected Unit is unavailable, the Shift Manager (SM) of the unaffected Unit **SHALL** assume the role of the Emergency Director until relieved. Or, if the occurrence is common to both Units (e.g., Security compromise, acts of nature), the Senior Shift Manager (SM) (per 1/2-OM-48.1.A.III.J) **SHALL** assume the role of Emergency Director.

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D. ACTION LEVELS/PRECAUTIONS

1.0 Action Levels

- 1.1 An Alert Emergency condition has been declared based on the occurrence of events which could indicate an actual or potential degradation of the level of safety of the plant per EPP/I-1.
- 1.2 An Unusual Event has been declared and based on subsequent information or upon a deterioration in plant conditions, the conditions has been reclassified as an Alert.

2.0 Precautions

- 2.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change, or as more definitive information is obtained.
- 2.2 Corrective actions to contend with the situation and to mitigate possible deterioration in plant conditions **SHALL** be conducted in accordance with the BVPS Operating Manual while simultaneously implementing this Instruction.
- 2.3 Following the declaration of an Alert, Federal regulations required notification of offsite authorities **MUST** be made within fifteen minutes. (Refer to EPP/IP 1.1)
- 2.4 Faxing of the Initial Notification Form is NOT the "Official" Notification to the Offsite Agencies and does NOT meet the 15-minute notification criteria. The 15-minute notification criteria is met and "Official" notification made when a representative of BVPS speaks with a representative of each Offsite Agency.

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E. PROCEDURE

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).

1.0 Control Room SM/ED actions:

CHECK

- 1.1 Implement corrective actions. ☐

NOTE:

Initial Notifications to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

- 1.2 Remove Notification Package from the sealed EPP drawer. ☐

NOTE:

Attachments and Forms designated with an * are included in the Alert Notification Package.

- 1.3 Complete Form EPP-IP-1.1.F.01*, INITIAL NOTIFICATION FORM. Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred. ☐

- 1.4 Onshift Communications and Records Coordinator to begin notifications of Offsite Agencies. ☐

- 1.5 If the Emergency Response Organization (ERO) has previously been notified, **PROCEED TO STEP 1.6.11**, or continue: ☐

- 1.5.1 For Security Events, discuss with Security personnel site accessibility AND if Site Assembly/Accountability should be conducted, (may be postponed if event is a threat to personnel safety). ☐

- 1.5.2 Determine if the site is accessible for ERO response. ☐

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NOTE:

Activating the Emergency Response Organization beepers will begin activation of the following: Technical Support Center (TSC), Operations Support Center (OSC), Emergency Operations Facility and the Joint Public Information Center (JPIC).

CHECK

- 1.6 A SRO (from the unaffected Unit) **SHALL** complete the blanks below and notify the Emergency Response Organization (ERO). ☐

"This is _____ (Your Name)

at Beaver Valley Power Station. At _____ (time)
hrs.,

Unit _____ has declared an ALERT due to:

(Choose One and Continue)

a. Report to your emergency facility. I repeat,
report to your emergency facility.

OR

b. Report to your alternate emergency facility. I
repeat, report to your alternate emergency
facility."

1.6.1 From a PAX phone, dial 4370. ☐

1.6.2 Interrupt the greeting by **IMMEDIATELY** entering
XXXX. ☐

1.6.3 When prompted, enter scenario number XXXX. ☐

1.6.4 When prompted, verify scenario number (9 for YES or
6 for NO). ☐

(Continue)

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CHECK

1.6.5 When prompted "Do you want to record your on the fly message 1", Press 9 for YES or 6 for NO.

☐

1.6.6 When prompted "Enter on the fly number 1 segment ID or press star to record".

☐

1.6.6.1 PRESS * (A short delay will occur).

☐

1.6.7 When prompted "Please speak your message after the tone", provide the information from Step 1.6 in your on the fly message.

☐

1.6.7.1 PRESS the # key when done with message.

☐

1.6.8 Review message, when prompted "Is that correct" (Press 9 for YES or 6 for NO).

☐

1.6.9 When prompted "You will queue scenario XXXX. It will now be sent. Are you sure this is what you want to do?" (Press 9 for YES or 6 for NO)

☐

1.6.10 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information:

☐

- Your name and title.

☐

- EPP CODE WORD _____

☐

- An ALERT has been declared.

☐

- ERO pagers have been activated. Call back at PAX _____ when pager activates.

☐

- Request Near Site Building Emergency Notifications be made.

☐

1.6.11 From Lotus Notes, send a message to "beeper all call" with the information from E.1.6 above. Include if ERO is to report or not.

☐

1.7 Complete Form EPP-I-3.F.01*, ALERT PAGE ANNOUNCEMENT FORM.

☐

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CHECK

- 1.8 Announce the ALERT Page Party Announcement. ☐
- 1.9 Begin completing EPP/IP 3.2, Attachment 2*, EPP SITE ACCOUNTABILITY FORM and provide to CAS as soon as possible, but in all cases, upon declaration of a Site Accountability. ☐
- 1.10 Discontinue ANY Routine/Batch Releases at EITHER Unit. ☐
- 1.11 Complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of the airborne release, if applicable. ☐
- 1.11.1 Instruct the Onshift Communications and Records Coordinator to conduct Follow-Up Notifications per EPP-IP-1.1. ☐

NOTE:

NRC notifications **MUST** be made within one (1) hour of Emergency Declaration. (Satisfies 10CFR50.72)

CHECK

- 1.12 Complete NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET. ☐

NOTE:

(Licensed) Personnel from the opposite Unit should be utilized to complete NRC notifications.

NRC Operations Center

800-532-3469

or

301-816-5100

Fax: 301-816-5151

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CHECK

1.12.1 Provide details from NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET to the NRC. ☐

1.13 If necessary:

1.13.1 Instruct Health Physics to survey Assembly Areas, per EPP/IP 3.1. ☐

1.13.2 Implement Site Evacuation, per EPP/IP 3.2. ☐

1.13.3 Notify Beaver, Columbiana and Hancock County officials if a Site Evacuation is ordered – Onshift Communicator. ☐

1.14 For airborne release:

1.14.1 Complete EPP-I-3, Attachment. 1*, OPERATIONAL INPUTS FOR DOSE ASSESSMENTS. ☐

1.14.2 Provide completed Attachment to Health Physics Personnel. ☐

1.14.3 Instruct Health Physics to initiate dose projections. ☐

1.14.4 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3). ☐

1.14.5 Obtain dose projection results from Health Physics. ☐

1.15 For Liquid Release:

1.15.1 Obtain results from Health Physics personnel. ☐

1.15.2 Determine if Liquid Release protective action is required, per EPP/IP 4.1. ☐

1.15.3 Notify downstream water treatment plants and relay PAR, if applicable – Onshift Communicator. ☐

1.16 Escalate Emergency Classification, if necessary. ☐

1.17 Terminate when termination criteria met per EPP/IP-6.2, Attachment 1 *, TERMINATION GUIDELINES. ☐

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2.0 TSC Emergency Director Actions (Upon activation):

CHECK

- 2.1 Coordinate with the Control Room to implement corrective actions. ☐

NOTE:

Initial Notifications to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

NOTE:

Attachments and Forms designated with an * are included in the Communications and Records Coordinator Notification Package.

- 2.2 Complete Form EPP-IP-1.1.F.01*, INITIAL NOTIFICATION FORM if not already completed. Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred. ☐

- 2.2.1 Provide completed form to Communications & Records Coordinator. ☐

- 2.3 Instruct the Communications and Records Coordinator to begin notifications of Offsite Agencies per EPP-IP-1.1. ☐

- 2.4 Instruct the TSC Operations Coordinator to: ☐

- 2.4.1 Complete Form EPP-I-3.F.01, ALERT PAGE ANNOUNCEMENT FORM.

- 2.4.2 Coordinate with Control Room to sound Station Standby Alarm, per Form EPP-I-3.F.01, ALERT PAGE ANNOUNCEMENT FORM.

- 2.4.3 Using Page Party System "super page", make Alert Page Announcement immediately after Standby Alarm is sounded.

- 2.5 Verify ANY Routine/Batch Releases at **EITHER** Unit stopped. ☐

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CHECK

2.6 Instruct the Communications and Records Coordinator to complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of the airborne release, if applicable.

☐

2.6.1 Review and approve completed Follow-Up Notification Form.

☐

2.6.2 Instruct the Communications and Records Coordinator to conduct Follow-Up Notifications per EPP-IP-1.1

☐

NOTE:

NRC notifications **MUST** be made within one (1) hour of Emergency Declaration. (Satisfies 10CFR50.72)

2.7 Instruct the TSC Operations Coordinator to complete NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET

☐

2.7.1 Ensure that the worksheet is provided to the Operations Communicator manning the NRC ENS "RED" phone.

☐

2.7.2 Ensure that the details from NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET are provided to the NRC.

☐

NOTE:

ERDS activation **MUST** be accomplished within one (1) hour of emergency declaration.

CHECK

2.8 Verify ERDS (EPP/IP 1.4) is activated, if not already done.

☐

2.9 If necessary:

2.9.1 Instruct Health Physics to survey Assembly Areas, per EPP/IP 3.1.

☐

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CHECK

- 2.9.2 Implement Site Evacuation, per EPP/IP 3.2. ☐
- 2.9.3 Instruct the Onshift Communications and Records Coordinator to notify Beaver, Columbiana and Hancock County officials if a Site Evacuation is ordered. ☐
- 2.10 For airborne release:
 - 2.10.1 Instruct EA&DP to initiate dose projections (EPP/IP 2.6). ☐
 - 2.10.2 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3). ☐
 - 2.10.3 Obtain Dose Projection results from EA&DP. ☐
- 2.11 For Liquid Release:
 - 2.11.1 Obtain results from EA&DP personnel. ☐
 - 2.11.2 Determine if Liquid Release protective action is required, per EPP/IP 4.1. ☐
 - 2.11.3 Instruct the Communications and Records Coordinator to notify downstream water treatment plants and relay the PAR, if applicable, per EPP-IP-1.1.F.02. ☐
- 2.12 Escalate Emergency Classification, if necessary. ☐
- 2.13 Terminate when termination criteria met per EPP/IP 6.2, Attachment 1*, TERMINATION GUIDELINES. ☐

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F. FINAL CONDITIONS

- 1.0 On-Call ED/alternate and On-Call E/RM/alternate have been contacted.
- 2.0 Initial and Follow-Up offsite notifications are complete.
- 3.0 The Alert has been terminated with normal station administration resumed, a recovery organization established or the emergency classification has escalated.
- 4.0 Event termination calls are completed per EPP/IP 1.1.

G. ATTACHMENTS

- 1.0 Attachment 1, Operational Inputs For Dose Assessments
- 2.0 Attachment 2, Determination of Airborne Radioactive Releases During Emergencies.

H. RECORDS AND FORMS

- 1.0 Records
 - 1.1 Completed copies of Attachments listed below shall be routed to Manager, Emergency Preparedness prior to retention by Beaver Valley Records Center.
 - 1.1.1 Attachment 1, Operational Inputs For Dose Assessments
- 2.0 Forms
 - 2.1 EPP-I-3.F.01 – Alert Page Announcement

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OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

To perform a dose projection, Health Physics personnel will require the following information:

- 1) Type of accident: (Circle One) If unknown, use (2) LOCA W/GAP Activity.
 - (1) **LOCA W/RCS Activity** - Loss of coolant accident and no greater than Tech Spec RCS Activity.
 - (2) **LOCA W/GAP Activity** - Loss of coolant accident and core exit thermocouples have exceeded values that may indicate damage to fuel cladding with ESF's available.
 - (3) **Design Basis LOCA** - Double ended shear of RCS piping, rapid RCS depressurization, minimum engineered safety features function.
 - (4) **LOCA W/Failed ESF's (TID14844)** - Double ended shear of RCS piping, rapid RCS depressurization, no engineered safety features function and loss of containment.
 - (5) **Small Line Break LOCA** - Loss of coolant accident via piping systems outside containment (i.e., letdown) and no greater than Tech Spec RCS activity.
 - (6) **RCCA Ejection** - Reactor control cluster ejection causes loss of coolant accident which results in 10% gap release.
 - (7) **Steam Generator Tube Rupture** - SG Tube rupture with offsite power not available (condenser not available).
 - (8) **Fuel Handling Accident** - The drop of a fuel bundle in the Fuel Handling Building.
 - (9) **Loss of AC Power** - Loss of offsite power, natural circulation cooldown.
 - (10) **Gas Waste System Failure** - Alarms or unplanned pressure loss from waste gas treatment/storage system.
 - (11) **Main Steam Line Break** - Technical Specification RCS activity, with accident induced primary-to-secondary leak.

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OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

- 2) Time of plant trip or start of accident: _____.
- 3) Delay time between accident and start of release: _____ (Hours)
- 4) Expected, known, or default duration of release: _____ (Hours)
(If duration unknown, use one (1) hour as default value.)
- 5) Known or expected release pathway: (Circle One)

Rel. Point	Unit 1	Unit 2
RP 1	Ventilation Vent	Ventilation Vent
RP 2	SLCRS	Condensate Pol. SLCRS
RP 3	Process Vent	Decon Building Waste Gas Building
RP 4	Main Steam	Main Steam

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DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Has ANY of the following occurred AND is directly related to the initiating event?

- ☐ Yes ☐ No Positive pressure in containment.

☐ Yes ☐ No ANY reactor trip or rapid shutdown.

☐ Yes ☐ No ANY secondary system steam release (e.g., via aux. feedwater turbine exhaust, SGADV, MSSV).

☐ Yes ☐ No ANY other event related indication of gas/vapor release from a system containing radioactive material.

☐ Yes ☐ No ANY radioactivity (other than naturally occurring, ie: Radon) detected by air sampling in site ventilation, buildings or areas, or offsite areas.

☐ Yes ☐ No ANY VALID increase in ventilation effluent or process radiation monitors (excluding the containment airborne monitors).

NO

**REPORT:
CONDITIONS
INDICATE
NO non-routine
radiological release is
occurring,
AND,
Check on the Initial
Notification Form:
"NO non-routine
radiological release
in progress."**

YES

Check on the Initial
Notification Form:
"An airborne non-routine
radiological release is in
progress."

VALID: Refer to Definitions in EPP/I-1a or b.

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DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Are ANY of the following conditions met?

- ☐ Yes ☐ No Airborne radioactivity field measurements (outdoors on or off-site) > background
- ☐ Yes ☐ No Unmonitored pathway open between a radioactive system and the environment
- ☐ Yes ☐ No Release with effluent monitor in high-high alarm (Unit 1 except SPING) OR high alarm (Unit 2, and Unit 1 SPING)
- ☐ Yes ☐ No Multiple pathway effluent monitor alarms of any level (alert, high or high-high)
- ☐ Yes ☐ No Secondary system steam release associated with accident condition (e.g., steam generator tube rupture, locked RCP rotor, rod control cluster ejection or main steam line break)

NO

REPORT: CONDITIONS INDICATE:

A non-routine minor release below Federally approved operating limits has occurred. Release is being monitored.

YES

REPORT:
CONDITIONS INDICATE:
Non-routine radiological release exceeding routine operational limits is occurring.

AND

Perform accident dose projection and report results in accordance with EPP/IP 2.6.

REPORT:

- ¹Thyroid 0.17 millirem maximum for each full hour of release
- ²TEDE 0.06 millirem maximum for each full hour of release

Actual total values will be calculated and provided **after** plant conditions have stabilized, and samples have been taken and analyzed.

PAG values can not be reached at these levels

¹Based on 1500 mrem/y site boundary, instantaneous particulate & iodine release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1b.

²Based on 500 mrem/y site boundary, instantaneous noble gas release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1a.

Beaver Valley Power Station

Unit 1/2

EPP-I-4

SITE AREA EMERGENCY

Document Owner
Manager, Emergency Preparedness

Revision Number	18
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

CONTROLLED
BVPS UNIT 3

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A. PURPOSE

This instruction describes the actions to be taken in the event that a Site Area Emergency has been declared at the Beaver Valley Power Station. Actions to be completed by the Control Room are outlined in Section E.1.0 while TSC actions are outlined in Section E.2.0.

B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Beaver Valley Power Station Operating Manuals.
- 3.0 Beaver Valley Power Station Health Physics Manual.
- 4.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 5.0 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 6.0 Condition Report #971737
 Condition Report #993020
 Condition Report #00-2202
 Condition Report #00-4309
 Condition Report #01-0693
 Condition Report #01-4468
 Condition Report #02-04015
 Condition Report #02-04155
 Condition Report #02-05012
 Condition Report #02-03442
 Condition Report #02-09224-15

C. RESPONSIBILITY

The Emergency Director (Shift Manager (SM) of the affected Unit, until properly relieved by a designated alternate) has the responsibility and authority for implementation of the actions prescribed in this instruction. If the Shift Manager (SM) of the affected Unit is unavailable, the Shift Manager (SM) Shift Manager (SM) of the unaffected Unit **SHALL** assume the role of the Emergency Director until relieved. Or, if the occurrence is common to both Units (e.g., Security compromise, acts of nature), the Senior Shift Manager (SM) (per 1/2-OM-48.1.A.III.J) **SHALL** assume the role of Emergency Director.

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D. ACTION LEVELS/PRECAUTIONS

1.0 Action Levels

- 1.1 A Site Area Emergency has been declared based on the occurrence of events which involve actual or likely failures of plant functions needed for the protection of the public. Events classified as Site Area Emergencies are described in EPP/I-1.
- 1.2 An Unusual Event or an Alert emergency condition had been declared and emergency measures are being performed; and on the basis of subsequent information or upon deterioration in plant conditions, the condition has been reclassified as a Site Area Emergency.

2.0 Precautions

- 2.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change, or as more definitive information is obtained.
- 2.2 Corrective actions to contend with the situation and to mitigate possible deterioration in plant conditions **SHALL** be conducted in accordance with the BVPS Operating Manual while simultaneously implementing this Instruction.
- 2.3 Following the declaration of an Site Area Emergency, Federal regulations required notification of offsite authorities **MUST** be made within fifteen minutes. (Refer to EPP/IP 1.1)
- 2.4 Faxing of the Initial Notification Form is NOT the "Official" Notification to the Offsite Agencies and does NOT meet the 15-minute notification criteria. The 15-minute notification criteria is met and "Official" notification made when a representative of BVPS speaks with a representative of each Offsite Agency.

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E. PROCEDURE

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).

1.0 Control Room SM/ED actions: (IF TSC NOT ACTIVATED)

CHECK

- 1.1 Implement corrective actions. ☐

NOTE:

Initial Notifications to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

- 1.2 Remove Notification Package from the sealed EPP drawer. ☐

NOTE:

Attachments and Forms designated with an * are included in the Site Area Notification Package.

- 1.3 Complete Form EPP-IP-1.1.F.01 * INITIAL NOTIFICATION FORM. Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred. ☐

- 1.4 Onshift Communications and Records Coordinator to begin notifications of Offsite Agencies. ☐

- 1.5 If the Emergency Response Organization (ERO) has previously been notified, **PROCEED TO STEP 1.6.11**, or continue..

- 1.5.1 For Security Events, discuss with Security personnel site accessibility AND if Site Assembly/Accountability should be conducted, (may be postponed if event is a threat to personnel safety).. ☐

- 1.5.2 Determine if the site is accessible for ERO response. ☐

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NOTE:

Activating the Emergency Response Organization beepers will begin activation of the following: Technical Support Center (TSC), Operations Support Center (OSC), Emergency Operations Facility and the Joint Public Information Center (JPIC).

CHECK

- 1.6 A SRO (from the unaffected Unit) **SHALL** complete the blanks below and notify the Emergency Response Organization (ERO). ☐

"This is _____ (Your Name)

at Beaver Valley Power Station. At _____ (time)
hrs.,

Unit _____ has declared a SITE AREA EMERGENCY
due to:

(Choose One and Continue)

a. Report to your emergency facility. I repeat,
report to your emergency facility.

OR

b. Report to your alternate emergency facility. I
repeat, report to your alternate emergency
facility."

1.6.1 From a PAX phone, dial 4370. ☐

1.6.2 Interrupt the greeting by **IMMEDIATELY** entering
XXXX. ☐

1.6.3 When prompted, enter scenario number XXXX. ☐

1.6.4 When prompted, verify scenario number (9 for YES or
6 for NO). ☐

(Continue)

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1.6.5 When prompted "Do you want to record your on the fly message 1", Press 9 for YES or 6 for NO. ☐

1.6.6 When prompted "Enter on the fly number 1 segment ID or press star to record". ☐

1.6.6.1 PRESS * (A short delay will occur). ☐

1.6.7 When prompted "Please speak your message after the tone", provide the information from Step 1.6 in your on the fly message. ☐

1.6.7.1 PRESS the # key when done with message.. ☐

1.6.8 Review message, when prompted "Is that correct" (Press 9 for YES or 6 for NO). ☐

1.6.9 When prompted "You will queue scenario XXXX. It will now be sent. Are you sure this is what you want to do?" (Press 9 for YES or 6 for NO) ☐

1.6.10 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information: ☐

- Your name and title. ☐
- EPP CODE WORD ☐
- A SITE AREA EMERGENCY has been declared. ☐
- ERO pagers have been activated. Call back at PAX ☐
- Request Near Site Building Emergency Notifications be made. ☐

1.6.11 From Lotus Notes, send a message to "beeper all call" with the information from E.1.6 above. Include if ERO is to report or not. ☐

1.7 Notify Security to implement Site Assembly and Accountability, if not already done. ☐

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CHECK

- 1.6.5 When prompted "Do you want to record your on the fly message 1", Press 9 for YES or 6 for NO.
- 1.6.6 When prompted "Enter on the fly number 1 segment ID or press star to record".
 - 1.6.6.1 PRESS * (A short delay will occur).
- 1.6.7 When prompted "Please speak your message after the tone", provide the information from Step 1.6 in your on the fly message.
 - 1.6.7.1 PRESS the # key when done with message..
- 1.6.8 Review message, when prompted "Is that correct" (Press 9 for YES or 6 for NO).
- 1.6.9 When prompted "You will queue scenario XXXX. It will now be sent. Are you sure this is what you want to do?" (Press 9 for YES or 6 for NO)
- 1.6.10 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information:
 - Your name and title.
 - EPP CODE WORD _____.
 - A SITE AREA EMERGENCY has been declared.
 - ERO pagers have been activated. Call back at PAX _____ when pager activates.
 - Request Near Site Building Emergency Notifications be made.
- 1.6.11 From Lotus Notes, send a message to "beeper all call" with the information from E.1.6 above. Include if ERO is to report or not.
- 1.7 Notify Security to implement Site Assembly and Accountability, if not already done.

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- 1.8 Complete Form EPP-I-4.F.01 * SITE AREA EMERGENCY PAGE ANNOUNCEMENT. ☐
- 1.9 Announce the Site Area Emergency Page Party Announcement. ☐

NOTE:

For a Site Area Emergency or General Emergency, the EPP SITE ACCOUNTABILITY FORM **MUST** be delivered to CAS within 20 minutes of the Emergency Declaration.

CHECK

- 1.10 Complete Attachment 2, EPP/IP 3.2*, EPP SITE ACCOUNTABILITY FORM and provide to CAS, if not already done. ☐
- 1.11 Discontinue ANY Routine/Batch Releases at EITHER Unit. ☐
- 1.12 Complete Form EPP-IP-1.1.F.03*.FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of the airborne release, if applicable. ☐
- 1.12.1 Instruct the Onshift Communications and Records Coordinator to conduct Follow-Up Notifications per EPP-IP 1.1. ☐

NOTE:

NRC notifications **MUST** be made within one (1) hour of emergency declaration. (Satisfies 10CFR50.72)

- 1.13 Complete NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET. ☐

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NOTE:
(Licensed) Personnel from the opposite Unit should be utilized to complete NRC notifications.

NRC Operations Center
800-532-3469
or
301-816-5100

Fax: 301-816-5151

CHECK

- 1.13.1 Provide the details from NRC Form 361 REACTOR PLANT EVENT NOTIFICATION WORKSHEET to the NRC. ☐
- 1.14 If Necessary:
 - 1.14.1 Instruct Health Physics to survey Assembly Areas, per EPP/IP 3.1. ☐
 - 1.14.2 Implement Site Evacuation, per EPP/IP 3.2. ☐
 - 1.14.3 Notify Beaver, Columbiana and Hancock County officials if a Site Evacuation is ordered. – Onshift Communicator ☐
- 1.15 For Airborne release:
 - 1.15.1 Complete EPP-I-4, Attachment. 1*, OPERATIONAL INPUTS FOR DOSE ASSESSMENTS. ☐
 - 1.15.2 Provide completed attachment to Health Physics personnel. ☐
 - 1.15.3 Instruct Health Physics to initiate dose projections (EPP/IP 2.6). ☐
 - 1.15.4 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3). ☐
 - 1.15.5 Obtain Dose Projection results from Health Physics. ☐

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CHECK

1.16 For Liquid Release:

1.16.1 Obtain results from Health Physics personnel. ☐1.16.2 Determine if Liquid Release protective action is required, per EPP/IP 4.1. ☐1.16.3 Notify downstream water treatment plants and relay the PAR, if applicable. – Onshift Communicator ☐1.17 Escalate Emergency Classification, if necessary. ☐1.18 Terminate when termination criteria met per EPP/IP-6.2, Attachment. 1*, TERMINATION GUIDELINES. ☐

2.0 TSC Emergency Director Actions (Upon activation):

2.1 Coordinate with the Control Room to implement corrective actions. ☐

NOTE:

Initial Notifications to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

NOTE:

Attachments and Forms designated with an * are included in the Communications and Records Coordinator Notification Package.

2.2 Complete Form EPP-IP-1.1.F.01*, INITIAL NOTIFICATION FORM. Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred. ☐2.2.1 Provide completed form to Communications and Records Coordinator. ☐2.3 Instruct the Communications and Records Coordinator to begin notifications of Offsite Agencies per EPP-IP-1.1. ☐

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- 2.4 Instruct the TSC Operations Coordinator to: ☐
 - 2.4.1 Complete Form EPP-I-4.F.01*, SITE AREA EMERGENCY ANNOUNCEMENT FORM.
 - 2.4.2 Coordinate with Control Room to sound the Station Standby Alarm, per Form EPP-I-4.F.01*, SITE AREA EMERGENCY ANNOUNCEMENT FORM.
 - 2.4.3 Using Page Party System "super page", make Site Area Emergency Page Announcement immediately after Standby Alarm is sounded.
 - 2.4.4 Instruct the Control Room to complete and deliver EPP SITE ACCOUNTABILITY FORM, if not already done. ☐
- 2.5 Instruct Security to implement Site Assembly and Accountability, if not already done. ☐
- 2.6 Notify the TSC Coordinators and ERM of emergency escalation and accountability, if not already done. ☐
- 2.7 Provide update to ERF personnel via building page. ☐
- 2.8 Discontinue ANY Routine/Batch Releases at EITHER Unit. ☐
- 2.9 Instruct the Communications and Records Coordinator to complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of the airborne release, if applicable. ☐
 - 2.9.1 Review and approve completed Follow-Up Notification Form. ☐

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- 2.9.2 Instruct the Communications and Records Coordinator to conduct Follow-Up Notifications per EPP-IP-1.1 ☐

NOTE:

NRC notifications **MUST** be made within one (1) hour of Emergency Declaration. (Satisfies 10CFR50.72)

- 2.10 Instruct the TSC Operations Coordinator to complete NRC Form 361, REACTOR PLANT EVENT NOTIFICATION WORKSHEET. ☐

- 2.10.1 Ensure that worksheet is provided to Operations Communicator manning NRC ENS "RED" phone. ☐

- 2.10.2 Ensure that the details from NRC Form 361, REACTOR PLANT EVENT NOTIFICATION WORKSHEET are provided to the NRC. ☐

NOTE:

ERDS activation **MUST** be accomplished within one (1) hour of emergency declaration.

- 2.11 Verify ERDS (EPP/IP 1.4) is activated, if not already done. ☐

- 2.12 If Necessary:

- 2.12.1 Instruct Health Physics to survey Assembly Areas, per EPP/IP 3.1. ☐

- 2.12.2 Implement Site Evacuation, per EPP/IP 3.2. ☐

- 2.12.3 Instruct the Onshift Communications and Records Coordinator to notify Beaver, Columbiana and Hancock County officials if a Site Evacuation is ordered. ☐

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2.13 For airborne release:

2.13.1 Instruct EA&DP to initiate dose projections (EPP/IP 2.6). ☐

2.13.2 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3). ☐

2.13.3 Obtain Dose Projection results from EA&DP. ☐

2.14 For Liquid Release:

2.14.1 Obtain results from EA&DP personnel. ☐

2.14.2 Determine if Liquid Release protective action is required, per EPP/IP 4.1. ☐

2.14.3 Instruct the Communications and Records Coordinator to notify downstream water treatment plants and relay the PAR, if applicable, per EPP-IP-1.1.F.02. ☐

2.15 Escalate Emergency Classification, if necessary. ☐

2.16 Terminate when termination criteria met per EPP/IP 6.2, Attachment 1*, TERMINATION GUIDELINES. ☐

F. FINAL CONDITIONS

1.0 On-Call ED/alternate and E/RM/alternate contacted.

2.0 Offsite notification initiated and updated.

3.0 The Site Area Emergency has been terminated with normal station administration resumed, a recovery organization established or the emergency reclassified.

4.0 Event termination calls are completed per EPP/IP 1.1.

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G. ATTACHMENTS

- 1.0 Attachment 1, Operational Inputs For Dose Assessments
- 2.0 Attachment 2, Determination of Airborne Radioactive Releases During Emergencies

H. RECORDS AND FORMS

- 1.0 Records
 - 1.1 Completed copies of Attachments listed below shall be routed to Manager, Emergency Preparedness prior to retention by Beaver Valley Records Center.
 - 1.1.1 Attachment 1, Operational Inputs For Dose Assessments
- 2.0 Forms
 - 2.1 EPP-I-4.F.01 Site Area Emergency Page Announcement

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OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

To perform a dose projection, Health Physics personnel will require the following information:

- 1) Type of accident: (Circle One) If unknown, use (2) LOCA W/GAP Activity.
 - (1) **LOCA W/RCS Activity** - Loss of coolant accident and no greater than Tech Spec RCS Activity.
 - (2) **LOCA W/GAP Activity** - Loss of coolant accident and core exit thermocouples have exceeded values that may indicate damage to fuel cladding with ESF's available.
 - (3) **Design Basis LOCA** - Double ended shear of RCS piping, rapid RCS depressurization, minimum engineered safety features function.
 - (4) **LOCA W/Failed ESF's (TID14844)** - Double ended shear of RCS piping, rapid RCS depressurization, no engineered safety features function and loss of containment.
 - (5) **Small Line Break LOCA** - Loss of coolant accident via piping systems outside containment (i.e., letdown) and no greater than Tech Spec RCS activity.
 - (6) **RCCA Ejection** - Reactor control cluster ejection causes loss of coolant accident which results in 10% gap release.
 - (7) **Steam Generator Tube Rupture** - SG Tube rupture with offsite power not available (condenser not available).
 - (8) **Fuel Handling Accident** - The drop of a fuel bundle in the Fuel Handling Building.
 - (9) **Loss of AC Power** - Loss of offsite power, natural circulation cooldown.
 - (10) **Gas Waste System Failure** - Alarms or unplanned pressure loss from waste gas treatment/storage system.
 - (11) **Main Steam Line Break** - Technical Specification RCS activity, with accident induced primary-to-secondary leak.

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OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

- 2) Time of plant trip or start of accident: _____.
- 3) Delay time between accident and start of release: _____ (Hours)
- 4) Expected, known, or default duration of release: _____ (Hours)
(If duration unknown, use one (1) hour as default value.)
- 5) Known or expected release pathway: (Circle One)

<u>Rel. Point</u>	<u>Unit 1</u>	<u>Unit 2</u>
RP 1	Ventilation Vent	Ventilation Vent
RP 2	SLCRS	Condensate Pol. SLCRS
RP 3	Process Vent	Decon Building Waste Gas Building
RP 4	Main Steam	Main Steam

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DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Has ANY of the following occurrend AND is directly relted to the initiating event?

- ☐ Yes ☐ No Positive pressure in containment.
- ☐ Yes ☐ No ANY reactor trip or rapid shutdown.
- ☐ Yes ☐ No ANY secondary system steam release (e.g., via aux. feedwater turbine exhaust, SGADV, MSSV).
- ☐ Yes ☐ No ANY other event related indication of gas/vapor release from a system containing radioactive material.
- ☐ Yes ☐ No ANY radioactivity (other than naturally occurring, ie: Radon) detected by air sampling in site ventilation, buildings or areas, or offsite areas.
- ☐ Yes ☐ No ANY VALID increase in ventilation effluent or process radiation monitors (excluding the containment airborne monitors).

NO

REPORT:
CONDITIONS
INDICATE
NO non-routine
radiological release is
occurring,
AND,
Check on the Initial
Notification Form:
"NO non-routine
radiological release in
progress."

YES

Check on the Initial
Notification Form:
"An airborne non-routine
radiological release is in
progress."

VALID: Refer to Definitions in EPP/I-1a or b.

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DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Are ANY of the following conditions met?

- ☐ Yes ☐ No Airborne radioactivity field measurements (outdoors on or off-site) > background
- ☐ Yes ☐ No Unmonitored pathway open between a radioactive system and the environment
- ☐ Yes ☐ No Release with effluent monitor in high-high alarm (Unit 1 except SPING) OR high alarm (Unit 2, and Unit 1 SPING)
- ☐ Yes ☐ No Multiple pathway effluent monitor alarms of any level (alert, high or high-high)
- ☐ Yes ☐ No Secondary system steam release associated with accident condition (e.g., steam generator tube rupture, locked RCP rotor, rod control cluster ejection or main steam line break)

NO

REPORT: CONDITIONS INDICATE:

A non-routine minor release below Federally approved operating limits has occurred. Release is being monitored.

YES

REPORT:
CONDITIONS INDICATE:
Non-routine radiological release
exceeding routine operational
limits is occurring.

AND

Perform accident dose projection and report results in accordance with EPP/IP 2.6.

REPORT:

- ¹Thyroid 0.17 millirem maximum for each full hour of release
- ²TEDE 0.06 millirem maximum for each full hour of release

Actual total values will be calculated and provided **after** plant conditions have stabilized, and samples have been taken and analyzed. PAG values can not be reached at these levels.

¹Based on 1500 mrem/y site boundary, instantaneous particulate & iodine release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1b.

²Based on 500 mrem/y site boundary, instantaneous noble gas release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1a.

Beaver Valley Power Station

Unit 1/2

EPP-I-5

GENERAL EMERGENCY

Document Owner
Manager, Emergency Preparedness

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Safety Related Procedure	Yes

CONTROLLED
BVPS UNIT 3

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A. PURPOSE

This instruction describes the actions to be taken in the event that a General Emergency has been declared at the Beaver Valley Power Station. Actions to be completed by the Control Room are outlined in Section E.1.0 while TSC actions are outlined in Section E.2.0.

B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Beaver Valley Power Station Operating Manuals.
- 3.0 Beaver Valley Power Station Health Physics Manual.
- 4.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 5.0 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 6.0 Condition Report #971737.
Condition Report #993020.
Condition Report #00-2202
Condition Report #00-4309
Condition Report #01-0693
Condition Report #02-04015
Condition Report #02-04155
Condition Report #02-05012
Condition Report #02-03442
Condition Report #02-09224-15

C. RESPONSIBILITY

The Emergency Director (Shift Manager (SM) of the affected Unit, until properly relieved by a designated alternate) has the responsibility and authority for implementation of the actions prescribed in this instruction. If the Shift Manager (SM) of the affected Unit is unavailable, the Shift Manager (SM) of the unaffected Unit **SHALL** assume the role of the Emergency Director until relieved. Or, if the occurrence is common to both Units (e.g., Security compromise, acts of nature), the Senior Shift Manager (SM) (per 1/2-OM-48.1.A.III.J) **SHALL** assume the role of Emergency Director.

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D. ACTION LEVELS/PRECAUTIONS

1.0 Action Levels

- 1.1 A General Emergency has been declared based on the occurrence of events which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity, including Severe Accident Management Guidelines (SAMG). Events classified as General Emergencies are described in EPP/I-1.
- 1.2 A less severe emergency has been declared and emergency measures are being performed; and on the basis of subsequent information or upon deterioration in plant conditions, the condition has been reclassified as a General Emergency.

2.0 Precautions

- 2.1 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change, or as more definitive information is obtained.
- 2.2 The General Emergency classification includes actual or imminent events for which offsite protective actions will be needed. Notifications to offsite authorities **MUST** be made within 15 minutes after the declaration of the General Emergency.
- 2.3 Corrective actions to contend with the situation and to mitigate possible deterioration in plant conditions in accordance with the BVPS Operating Manual **SHALL** be conducted simultaneously with this instruction.
- 2.4 Faxing of the Initial Notification Form is NOT the "Official" Notification to the Offsite Agencies and does NOT meet the 15-minute notification criteria. The 15-minute notification criteria is met and "Official" notification made when a representative of BVPS speaks with a representative of each Offsite Agency.

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E. PROCEDURE

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).

1.0 Control Room SM/ED actions: (IF TSC NOT ACTIVATED)

CHECK

- 1.1 Implement corrective actions, including Severe Accident Management Guidelines (SAMG's), as directed by the EOP's ☐

NOTE:

Initial Notifications, including a **Protective Action Recommendation**, to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

- 1.2 Obtain Notification Package from the sealed EPP drawer. ☐

NOTE:

Attachments and Forms designated with an * are included in the General Emergency Notification Package.

- 1.3 Complete the following:

- 1.3.1 Form EPP-IP-1.1.F.01*, INITIAL NOTIFICATION FORM including a PROTECTIVE ACTION RECOMMENDATION (Reference EPP/IP 4.1, Attachment 1) Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred. ☐

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1.4 Onshift Communications and Records Coordinator to begin notifications of Offsite Agencies. ☐

1.4.1 Provide Initial Notification Protective Action Recommendation (PAR). ☐

NOTE:

For a fast breaking emergency, the SM/ED **SHALL** deliver the Protective Action Recommendation (PAR) at this time via the Initial Notification Conference (INC).

1.5 If the Emergency Response Organization (ERO) has previously been notified, **PROCEED TO STEP 1.6.11**, or continue.

1.5.1 For Security Events, discuss with Security personnel site accessibility AND if Site Assembly/Accountability should be conducted, (may be postponed if event is a threat to personnel safety). ☐

1.5.2 Determine if the site is accessible for ERO response. ☐

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NOTE:

Activating the Emergency Response Organization beepers will begin activation of the following: Technical Support Center (TSC), Operations Support Center (OSC), Emergency Operations Facility and the Joint Public Information Center (JPIC).

CHECK

- 1.6 A SRO (from the unaffected Unit) **SHALL** complete the blanks below and notify the Emergency Response Organization (ERO). ☐

"This is _____ (Your Name) at
Beaver Valley Power Station. At _____ (time) hrs.,
Unit _____ has declared a **GENERAL EMERGENCY**
due to:

(Choose One and Continue)

a. Report to your emergency facility. I repeat,
report to your emergency facility.

OR

b. Report to your alternate emergency facility. I
repeat, report to your alternate emergency
facility."

1.6.1 From a PAX phone, dial 4370. ☐

1.6.2 Interrupt the greeting by **IMMEDIATELY** entering
XXXX. ☐

1.6.3 When prompted, enter scenario number XXXX. ☐

1.6.4 When prompted, verify scenario number (9 for YES or
6 for NO). ☐

(Continue)

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- 1.6.5 When prompted "Do you want to record your on the fly message 1", Press 9 for YES or 6 for NO.
- 1.6.6 When prompted "Enter on the fly number 1 segment ID or press star to record".
 - 1.6.6.1 PRESS * (A short delay will occur).
- 1.6.7 When prompted "Please speak your message after the tone", provide the information from Step 1.6 in your on the fly message.
 - 1.6.7.1 PRESS the # key when done with message..
- 1.6.8 Review message, when prompted "Is that correct" (Press 9 for YES or 6 for NO).
- 1.6.9 When prompted "You will queue scenario XXXX. It will now be sent. Are you sure this is what you want to do?" (Press 9 for YES or 6 for NO)
- 1.6.10 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information:
 - Your name and title.
 - EPP CODE WORD _____.
 - A GENERAL EMERGENCY has been declared.
 - ERO pagers have been activated. Call back at PAX _____ when pager activates.
 - Request Near Site Building Emergency Notifications be made.
- 1.6.11 From Lotus Notes, send a message to "beeper all call" with the information from E.1.6 above. Include if ERO is to report or not.
- 1.7 Complete Form EPP-I-5.F.01*, GENERAL EMERGENCY PAGE ANNOUNCEMENT.

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- 1.8 Announce the General Emergency Page Party Announcement. ☐

NOTE:

For a Site Area Emergency or General Emergency, EPP/IP 3.2, Attachment 2*, EPP SITE ACCOUNTABILITY FORM **MUST** be delivered to CAS within 20 minutes of the Emergency Declaration.

- 1.9 Complete EPP/IP 3.2, Attachment 2*, EPP SITE ACCOUNTABILITY FORM and provide to CAS, if not already done. ☐

- 1.10 Notify Security to implement Site Assembly and Accountability, if not already done. ☐

- 1.11 Discontinue ANY Routine/Batch Releases at EITHER Unit. ☐

- 1.12 Complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of an airborne release, if applicable. ☐

- 1.12.1 Instruct the Onshift Communications and Records Coordinator to conduct Follow-Up Notifications per EPP-IP-1.1. ☐

NOTE:

NRC notifications **MUST** be made within one (1) hour of emergency declaration. (Satisfies 10CFR50.72)

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- 1.13 Complete NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET. ☐

NOTE:

(Licensed) Personnel from the opposite Unit should be utilized to complete NRC notifications.

NRC Operations Center

800-532-3469

or

301-816-5100

Fax: 301-816-5151

- 1.13.1 Provide details from NRC Form 361, REACTOR PLANT EVENT NOTIFICATION WORKSHEET to the NRC. ☐
- 1.14 If Necessary:
- 1.14.1 Instruct Health Physics to survey Assembly Areas, per EPP/IP 3.1. ☐
- 1.14.2 Implement Site Evacuation, per EPP/IP 3.2. ☐
- 1.14.3 Notify Beaver, Columbiana and Hancock County officials if a Site Evacuation is ordered. – Onshift Communicator ☐
- 1.15 For Airborne release:
- 1.15.1 Complete EPP-I-5, Attachment 1*, OPERATIONAL INPUTS FOR DOSE ASSESSMENTS. ☐
- 1.15.2 Provide completed attachment to Health Physics personnel. ☐

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- 1.15.3 Instruct Health Physics to initiate dose projections (EPP/IP 2.6). ☐
- 1.15.4 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3). ☐
- 1.15.5 Obtain Dose Projection results from Health Physics. ☐
- 1.15.6 Update PAR, if necessary. ☐
- 1.16 For Liquid Release:
 - 1.16.1 Obtain results from Health Physics personnel. ☐
 - 1.16.2 Determine if Liquid Release protective action is required, per EPP/IP 4.1. ☐
 - 1.16.3 Notify downstream water treatment plants and relay the PAR, if applicable. – Onshift Communicator ☐
- 1.17 Terminate when termination criteria met per EPP/IP-6.2, Attachment 1*, TERMINATION GUIDELINES. ☐
- 2.0 TSC Emergency Director and EOF Emergency/Recovery Manager Actions (Upon activation): ☐
- 2.1 Coordinate with the Control Room to implement corrective actions. This may include oversight of Severe Accident Management Guidelines (SAMG's) activities. ☐

NOTE:

Initial Notifications, including a Protective Action Recommendation, to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

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NOTE:

Attachments and Forms designated with an * are included in the Communications and Records Coordinator Notification Package.

CHECK**2.2 Complete the following:**

2.2.1 EPP-IP-1.1.F.01*, INITIAL NOTIFICATION FORM including a PROTECTIVE ACTION RECOMMENDATION, (Reference EPP/IP 4.1, Attachment 1). Use Attachment 2 page 1 of 2 as guidance for determining if a radioactive airborne release has occurred.

☐

2.2.2 Provide completed form to the Communications and Records Coordinator.

☐**2.3 Instruct the Communications and Records Coordinator to begin notifications of Offsite Agencies per EP-/IP-1.1.**☐**2.4 Per discussion with the E/RM, instruct the Assistant to the E/RM to initiate the Gold Executive Conference (GEC), per EPP/IP 4.1, if not already done.**☐

2.4.1 E/RM SHALL provide the PAR to Offsite Agencies via the GEC.

☐**2.5 Notify Security to implement Site Assembly and Accountability, if not already done.**☐**2.6 Notify the TSC and EOF of emergency escalation and PAR via the building page.**☐

2.6.1 Relay escalation information over headset circuits.

☐**2.7 Instruct the TSC Operations Coordinator to:**☐

2.7.1 Complete Form EPP-I-5.F.01*, GENERAL EMERGENCY PAGE ANNOUNCEMENT FORM.

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2.7.2 Coordinate with the Control Room to sound the Station Standby Alarm, per Form EPP-I-5.F.01*, GENERAL EMERGENCY PAGE ANNOUNCEMENT FORM.

2.7.3 Using Page Party System "super page", make General Emergency Page Announcement immediately after Standby Alarm is sounded.

2.7.4 Instruct the Control Room to complete and deliver EPP SITE ACCOUNTABILITY FORM, if not already done.

2.8 Discontinue ANY Routine/Batch Releases at EITHER Unit. ☐

2.9 Instruct the Communications and Records Coordinator to complete Form EPP-IP-1.1.F.03*, FOLLOW-UP NOTIFICATION FORM. Use Attachment 2 page 2 of 2 for guidance on reporting the magnitude of an airborne release, if applicable. ☐

2.9.1 Review and approve completed Follow-Up Notification Form. ☐

2.9.2 Instruct the Communications and Records Coordinator to conduct Follow-Up Notifications per EPP-IP-1.1. ☐

NOTE:

NRC notifications **MUST** be made within one (1) hour of Emergency Declaration. (Satisfies 10CFR50.72)

2.10 Instruct the TSC Operations Coordinator to complete NRC Form 361*, REACTOR PLANT EVENT NOTIFICATION WORKSHEET. ☐

2.10.1 Ensure that the worksheet is provided to the Operations Communicator manning the NRC ENS "RED" phone. ☐

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- 2.10.2 Ensure that the details from NRC Form 361*,
REACTOR PLANT EVENT NOTIFICATION
WORKSHEET are provided to the NRC.

☐

NOTE:

ERDS activation **MUST** be accomplished within one (1)
hour of an Alert or higher emergency declaration.

- 2.11 Verify ERDS (EPP/IP 1.4) is activated, if not already done.

☐

- 2.12 If Necessary:

- 2.12.1 Instruct Health Physics to survey Assembly Areas, per
EPP/IP 3.1.

☐

- 2.12.2 Implement Site Evacuation, per EPP/IP 3.2.

☐

- 2.12.3 Instruct the Onshift Communications and Records
Coordinator to notify Beaver, Columbiana and Hancock
County officials if a Site Evacuation is ordered.

☐

- 2.13 For airborne release:

- 2.13.1 Instruct EA&DP to initiate dose projections (EPP/IP 2.6).

☐

- 2.13.2 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3).

☐

- 2.13.3 Obtain Dose Projection results from EA&DP.

☐

- 2.13.4 Update PAR, if necessary.

☐

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2.14 For Liquid Release:

2.14.1 Obtain results from EA&DP personnel. ☐

2.14.2 Determine if Liquid Release protective action is required, per EPP/IP 4.1. ☐

2.14.3 Instruct the Communications and Records Coordinator to notify downstream water treatment plants and relay the PAR, if applicable, per EPP-IP-1.1.F.02. ☐

2.15 Terminate when termination criteria met per EPP/IP 6.2, Attachment 1*, TERMINATION GUIDELINES. ☐

F. FINAL CONDITIONS

1.0 On-Call ED/alternate and E/RM/alternate contacted.

2.0 Offsite notification initiated and updated.

3.0 The General Emergency has been terminated with normal station administration resumed, a recovery organization established or the emergency reclassified.

4.0 Event termination calls are completed per EPP-IP-1.1.

G. ATTACHMENTS

1.0 Attachment 1, Operational Inputs For Dose Assessments

2.0 Attachment 2, Determination of Airborne Radioactive Releases During Emergencies

H. RECORDS AND FORMS

1.0 Records

1.1 Completed copies of Attachments listed below shall be routed to Manager, Emergency Preparedness prior to retention by Beaver Valley Records Center.

1.1.1 Attachment 1, Operational Inputs For Dose Assessments

2.0 Forms

2.1 EPP-I-5.F.01 General Emergency Page Announcement

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OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

To perform a dose projection, Health Physics personnel will require the following information:

- 1) Type of accident: (Circle One) If unknown, use (2) LOCA W/GAP Activity.
 - (1) **LOCA W/RCS Activity** - Loss of coolant accident and no greater than Tech Spec RCS Activity.
 - (2) **LOCA W/GAP Activity** - Loss of coolant accident and core exit thermocouples have exceeded values that may indicate damage to fuel cladding with ESF's available.
 - (3) **Design Basis LOCA** - Double ended shear of RCS piping, rapid RCS depressurization, minimum engineered safety features function.
 - (4) **LOCA W/Failed ESF's (TID14844)** - Double ended shear of RCS piping, rapid RCS depressurization, no engineered safety features function and loss of containment.
 - (5) **Small Line Break LOCA** - Loss of coolant accident via piping systems outside containment (i.e., letdown) and no greater than Tech Spec RCS activity.
 - (6) **RCCA Ejection** - Reactor control cluster ejection causes loss of coolant accident which results in 10% gap release.
 - (7) **Steam Generator Tube Rupture** - SG Tube rupture with offsite power not available (condenser not available).
 - (8) **Fuel Handling Accident** - The drop of a fuel bundle in the Fuel Handling Building.
 - (9) **Loss of AC Power** - Loss of offsite power, natural circulation cooldown.
 - (10) **Gas Waste System Failure** - Alarms or unplanned pressure loss from waste gas treatment/storage system.
 - (11) **Main Steam Line Break** - Technical Specification RCS activity, with accident induced primary-to-secondary leak.

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OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

- 2) Time of plant trip or start of accident: _____.
- 3) Delay time between accident and start of release: _____ (Hours)
- 4) Expected, known, or default duration of release: _____ (Hours)
(If duration unknown, use one (1) hour as default value.)
- 5) Known or expected release pathway: (Circle One)

Rel. Point	Unit 1	Unit 2
RP 1	Ventilation Vent	Ventilation Vent
RP 2	SLCRS	Condensate Pol. SLCRS
RP 3	Process Vent	Decon Building Waste Gas Building
RP 4	Main Steam	Main Steam

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Attachment 2 (1 of 2)

DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Has ANY of the following occurred AND is directly related to the initiating event?

- ☐ Yes ☐ No Positive pressure in containment.
- ☐ Yes ☐ No ANY reactor trip or rapid shutdown.
- ☐ Yes ☐ No ANY secondary system steam release (e.g., via aux. feedwater turbine exhaust, SGADV, MSSV).
- ☐ Yes ☐ No ANY other event related indication of gas/vapor release from a system containing radioactive material.
- ☐ Yes ☐ No ANY radioactivity (other than naturally occurring, ie: Radon) detected by air sampling in site ventilation, buildings or areas, or offsite areas.
- ☐ Yes ☐ No ANY VALID increase in ventilation effluent or process radiation monitors (excluding the containment airborne monitors).

NO

REPORT:
CONDITIONS
INDICATE
NO non-routine
radiological release is
occurring,
AND,
Check on the Initial
Notification Form:
"NO non-routine
radiological release in
progress."

YES

Check on the Initial
Notification Form:
"An airborne non-routine
radiological release is in
progress."

VALID: Refer to Definitions in EPP/I-1a or b.

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DETERMINATION OF AIRBORNE RADIOACTIVE RELEASES DURING EMERGENCIES

Are ANY of the following conditions met?

- ☐ Yes ☐ No Airborne radioactivity field measurements (outdoors on or off-site) > background
- ☐ Yes ☐ No Unmonitored pathway open between a radioactive system and the environment
- ☐ Yes ☐ No Release with effluent monitor in high-high alarm (Unit 1 except SPING) OR high alarm (Unit 2, and Unit 1 SPING)
- ☐ Yes ☐ No Multiple pathway effluent monitor alarms of any level (alert, high or high-high)
- ☐ Yes ☐ No Secondary system steam release associated with accident condition (e.g., steam generator tube rupture, locked RCP rotor, rod control cluster ejection or main steam line break)

NO

REPORT: CONDITIONS INDICATE:

A non-routine minor release below Federally approved operating limits has occurred. Release is being monitored.

YES

REPORT:
CONDITIONS INDICATE:
Non-routine radiological release exceeding routine operational limits is occurring.

AND

Perform accident dose projection and report results in accordance with EPP/IP 2.6 and EPP/IP 4.1:

- RELEASE LESS THAN PAG HAS OCCURRED
OR
- RELEASE REQUIRING PAG HAS OCCURRED

REPORT:

- ¹Thyroid 0.17 millirem maximum for each full hour of release
- ²TEDE 0.06 millirem maximum for each full hour of release

Actual total values will be calculated and provided **after** plant conditions have stabilized, and samples have been taken and analyzed. PAG values can not be reached at these levels.

¹Based on 1500 mrem/y site boundary, instantaneous particulate & iodine release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1b.

²Based on 500 mrem/y site boundary, instantaneous noble gas release rate limit - ODCM 1/2-ODC-3.03 Control 3.11.2.1a.