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OPPD
Omaha Public Power District

444 South 16th Street Mall
Omaha NE 68102-2247

February 7, 2002
LIC-02-0015

U. S. Nuclear Regulatory Commission
ATTN.: Document Control Desk
Washington, DC 20555

Reference: Docket No. 50-285

SUBJECT: Transmittal of Changes to Emergency Plan Implementing Procedures (EPIP) and Emergency Planning Forms (EPF)

In accordance with 10 CFR 50.54(q), 10 CFR 50, Appendix E, Section V, and 10 CFR 50.4(b)(5), please find EPF and EPIP change packages enclosed for the Document Control Desk (holder of Copy 165) and the NRC Region IV Plant Support Branch Secretary (holder of Copies 154 and 155).

The document update instructions and summary of changes are included on the Confirmation of Transmittal form (Form EP-1) attached to each controlled copy change package. Please return the Confirmation of Transmittal forms by March 14th, 22nd, and April 4th, 2002 respectively.

The revised documents included in the enclosed package are:

FC-EPF Index page 1 of 2 issued 01/15/02
FC-EPF-14 R10 issued 01/15/02

EPIP Index page 1 of 2 issued 01/23/02
EPIP-EOF-6 R32 issued 01/23/02

EPIP Index page 1 of 2 issued 02/04/02
EPIP-OSC-2 R40 issued 02/04/02
EPIP-TSC-1 R22 issued 02/04/02

A045

If you have any questions regarding the enclosed changes, please contact Mr. Carl Simmons at (402) 533-6430.

Sincerely,

MT Frans

M. T. Frans
Manager
Nuclear Licensing

MTF/ash

Enclosures

c: Plant Support Branch Secretary (2 sets)
Alan Wang, NRC Project Manager (w/o enclosures)
W. C. Walker, NRC Senior Resident Inspector (w/o enclosures)
Winston & Strawn (w/o enclosures)

FORM EP-1
Rev. 6 (04/29/99)

OMAHA PUBLIC POWER DISTRICT

Confirmation of Transmittal for
Emergency Planning Documents/Information

☐ Radiological Emergency Response Plan (RERP)
☐ Emergency Plan Implementing Procedures (EPIP)
☒ Emergency Planning Forms (EPF)
☐ Emergency Planning Department Manual (EPDM)
☐ Other Emergency Planning Document(s)/ Information

Transmitted to:

Name: Document Control Desk Copy No: 165
Plant Support Branch Secretary Copy No: 154
Plant Support Branch Secretary Copy No: 155

Date:_____

The following document(s) / information is forwarded for your manual:

REMOVE SECTION
FC-EPF Index page 1 of 2 issued 11/29/01
FC-EPF-14 R9 issued 09/04/01

INSERT SECTION
FC-EPF Index page 1 of 2 issued 01/15/02
FC-EPF-14 R10 issued 01/15/02

Summary of Changes:

FC-EPF-14 was revised to clarify that an ERO position name needs to be included.

Supervisor - Emergency Planning

I hereby acknowledge receipt of the above documents/information and have included them in my assigned manuals.
Signature: _____ **Date:**_____

Please sign above and return by **03/14/02** to:

Karma Boone
Fort Calhoun Station, FC-2-1
Omaha Public Power District
444 South 16th Street Mall
Omaha, NE 68102-2247

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EMERGENCY PLAN FORMS INDEX
FC-EPF

FC-EPF-1	Alert Notification System Accidental Activation Report Form	R7 11-29-01
FC-EPF-2	Offsite Monitoring Log	R3 03-15-01
FC-EPF-3	Administration of Potassium Iodide Tablets	R1 11-07-00
FC-EPF-4	Radiological Emergency Team Briefing Checklist	R2 12-13-94
NCR		
FC-EPF-5	Emergency Worker Extension	R3 03-26-98
FC-EPF-6	Estimated Exposure Worksheet	R4 11-07-00
FC-EPF-7	Estimated Exposure Log	R2 04-01-98
FC-EPF-8	Sample Worksheet	R5 08-10-95a
FC-EPF-9	OSC 24-Hour Staffing Schedule	R12 08-24-00
FC-EPF-10	CR/TSC 24-Hour Staffing Schedule	R14 08-24-00
C-EPF-11	EOF 24-Hour Staffing Schedule	R10 08-24-00
FC-EPF-12	MRC 24 Hour Staffing Schedule	R2 08-05-99
FC-EPF-13	Emergency Response Organization Log Sheet	R0 01-17-91
FC-EPF-14	Emergency Response Organization Assignment Form	R10 01-15-02
FC-EPF-15	Drill Exercise Comment Form	R3 07-11-97a
FC-EPF-17	Pager Response Follow Up Questionnaire	R3 11-06-99
FC-EPF-19	Process and Area Monitor Locations	R6 09-01-94
FC-EPF-20	Site Boundary/Owner Control Area	R1 07-29-97
FC-EPF-21	Fort Calhoun Station Sector Map	R2 05-15-97
FC-EPF-27	Onsite/Offsite Dose Comparison Data Record (Using Eagle Program)	R3 11-07-00
FC-EPF-29	Estimation of Unmonitored Release Rates	R1 12-30-93

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EMERGENCY RESPONSE ORGANIZATION ASSIGNMENT FORM

Section 1: Type of Change			
[ ] New Assignment: (Position)			
[ ] Delete From: (Position)			
[ ] Other Changes: (Position)		Reason:	
Section 2: Employee Data/Concurrence			
Full Name (include middle initial):			Employee No:
Department Name/Number:			PID No:
Employee Signature:		Print:	
Department Head Signature:		Print:	
Responsible MGMT. Contact (Per NAI-10):		Print:	
Forward to the Supervisor - Emergency Planning			
Section 3: Initial Assignment			
[ ] N/A	Supervisor-EP Approval:		Date:
	ERO Roster Updated By:		Date:
	Team Color: [ ] Red [ ] White[ ] Blue		
Section 4: Qualification Requirements Verification **NOTE**: A member of the EP Group will review with the assignee the steps and requirements needed to be taken to qualify for their assigned position.			
EP Reviewer:		Date:	Target Completion Date:
[ ] N/A	Emergency Preparedness Training Completed on:		[ ] 90 day training requirement [ ] 6 month training requirement
[ ] N/A	TLD Issued on:		
[ ] N/A	SCBA Qualification Completed on:		
[ ] N/A	FCS Site Access Badge Issued:	[ ] YES [ ] NO	Slot Number:
	Fitness For Duty Program Initiated:	[ ] YES [ ] NO	
	Supervisor's CBOP Training Completed:	[ ] YES [ ] NO	
Section 5: Final Approval			
The Above Change(s) Approved by Supervisor-Emergency Planning:			Date:
Section 6: Final Status Update			
[ ] N/A	ERO Roster Updated to Status 1 (Individual has been instructed to obtain an ERO ID card) or status 2 by (Circle one):		
	Emergency Planning REP:		Date:
[ ] N/A	Employee deleted from ERO Roster (instruct individual to turn in ERO ID card) by:		
	Emergency Planning REP:		Date:
	Reason for Deletion:		

FORM EP-1
Rev. 6 (04/29/99)

OMAHA PUBLIC POWER DISTRICT

Confirmation of Transmittal for Emergency Planning Documents/Information

☐ Radiological Emergency Response Plan (RERP) ☒ Emergency Plan Implementing Procedures (EPIP) ☐ Emergency Planning Forms (EPF)

☐ Emergency Planning Department Manual (EPDM) ☐ Other Emergency Planning Document(s)/ Information

Transmitted to:

Name: Document Control Desk Copy No: 165 Date: _____
Plant Support Branch Secretary Copy No: 154
Plant Support Branch Secretary Copy No: 155

The following document(s) / information is forwarded for your manual:

REMOVE SECTION	INSERT SECTION
EPIP Index page 1 of 2 issued 01/23/02	EPIP Index page 1 of 2 issued 02/04/02
EPIP-OSC-2 R39 issued 05/17/01	EPIP-OSC-2 R40 issued 02/04/02
EPIP-TSC-1 R21 issued 08/24/00	EPIP-TSC-1 R22 issued 02/04/02

Summary of Changes:

EPIP-OSC-2 was revised to add instructions for the Shift Radiation Protection Tech and Chemist to place the TSC HVAC System in the "Filtered Mode".
EPIP-TSC-1 was revised to clarify the instructions on securing and placing the TSC HVAC System in the "Filtered Mode" and in the "Normal Mode".

Supervisor - Emergency Planning

I hereby acknowledge receipt of the above documents/information and have included them in my assigned manuals.
Signature: _____ **Date:** _____

Please sign above and return by **04/04/02** to:

Karma Boone
Fort Calhoun Station, FC-2-1
Omaha Public Power District
444 South 16th Street Mall
Omaha, NE 68102-2247

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EMERGENCY PLAN IMPLEMENTING PROCEDURE INDEX

EPIP-OSC-1	Emergency Classification	R34 09-14-00
EPIP-OSC-2	Command and Control Position Actions/Notifications	R40 02-04-02
EPIP-OSC-9	Emergency Team Briefings	R7 12-09-99
EPIP-OSC-15	Communicator Actions	R22 10-24-00
EPIP-OSC-21	Activation of the Operations Support Center	R11 11-27-01
EPIP-TSC-1	Activation of the Technical Support Center	R22 0-04-02
EPIP-TSC-2	Catastrophic Flooding Preparations DELETED (05-09-95) **REINSTATED**	(R0 03-22-95) R2 02-06-96
EPIP-TSC-8	Core Damage Assessment	R14 01-19-01
EPIP-EOF-1	Activation of the Emergency Operations Facility	R12 08-24-00a
EPIP-EOF-3	Offsite Monitoring	R17 12-07-01
EPIP-EOF-6	Dose Assessment	R32 01-23-02
EPIP-EOF-7	Protective Action Guidelines	R13 10-31-00b
EPIP-EOF-10	Warehouse Personnel Decontamination Station Operation	R10 01-13-00a
EPIP-EOF-11	Dosimetry Records, Exposure Extensions and Habitability	R18 09-18-97b
EPIP-EOF-19	Recovery Actions	R7 09-30-98
EPIP-EOF-21	Potassium Iodide Issuance	R4 11-07-00
EPIP-EOF-23	Emergency Response Message System	R5 10-12-99
EPIP-EOF-24	EOF Backup Alert Notification System Activation	R3 09-09-99
EPIP-RR-11	Technical Support Center Director Actions	R14 02-29-00
EPIP-RR-13	Reactor Safety Coordinator Actions	R14 12-09-99

WP8

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Fort Calhoun Station
Unit No. 1

EPIP-OSC-2

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: COMMAND AND CONTROL POSITION ACTIONS/NOTIFICATIONS

FC-68 Number: EC 29389

Reason for Change: Add instruction for the Shift RP and Chemist to place the TSC HVAC System in the FILTERED MODE. Required by a commitment made in LIC-01-0109.

Requestor: M. Reller

Preparer: M. Reller

ISSUED: 02-04-02 3:00 pm R40

COMMAND AND CONTROL POSITION ACTIONS/NOTIFICATIONS

NON-SAFETY RELATED

1. PURPOSE

1.1 This procedure provides guidance to the Command and Control position for implementing the Emergency Plan, making required notifications, transferring Command and Control, performing classification upgrades/downgrades and event terminations.

2. REFERENCES/COMMITMENT DOCUMENTS

2.1 SO-R-1, "Reportability Determination"

2.2 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors

2.3 EPIP-OSC-1, "Emergency Classification"

2.4 EPIP-OSC-15, "Communicator Actions"

2.5 EPIP-EOF-6, "Dose Assessment"

2.6 EPIP-EOF-7, "Protective Action Guidelines"

2.7 EPIP-EOF-11, "Dosimetry Records, Exposure Extensions, and Habitability"

2.8 EPIP-EOF-21, "Potassium Iodide Issuance"

2.9 EPIP-EOF-19, "Recovery Actions"

2.10 EPIP-TSC-1, "Activation of the Technical Support Center"

2.11 EPIP-EOF-1, "Activation of the Emergency Operations Facility"

2.12 OI-ERFCS-1, "Emergency Response Facility Computer System"

2.13 FC-1188, "Emergency Notification Form"

2.14 FC-EPF-38, "Blair Industrial Park Co-Op, Event Notification Form"

2.15 Emergency Telephone Book

2.16 Commitments (other than Ongoing)

- AR 10026, NRC-89-0232
- AR 07071, LIC-88-0726

2.17 Ongoing Commitments

- AR 30816, LIC-01-0189

3. DEFINITIONS

3.1 ANS - "Alert Notification System" The system of sirens maintained in OPPD's designated EPZ (Emergency Planning Zone).

3.2 BLAIR INDUSTRIAL PARK CO-OP: EMERGENCY NOTIFICATION SYSTEM - An organization of industries including Fort Calhoun Station that have banded together to form a warning system to notify member industries and the Washington County Dispatch Center of a potential or actual release of toxic chemicals and/or hazardous material from its facility.

3.3 CODE SYSTEM - A system devised by members of the Blair Industrial Park Co-Op to classify events that have occurred at the initiating facilities site. These codes are:

- CODE BLUE: A minor emergency or problem such as a fire, explosion, gas or liquid release, unusual noise or odor, abnormal or extended flaring activity or other internal event has occurred which may be visible or detectable by off-site people, but which presents NO OFFSITE THREAT and requires no protective actions. The situation is under control.

- CODE GREEN: An emergency such as a fire, explosion, gas or liquid release or other event has occurred which affects plant operations and/or has the potential to escalate to a more serious emergency. THE SITUATION IS NOT UNDER CONTROL BUT POSES NO IMMEDIATE OFFSITE THREAT. The Washington County EOC may activate.

- CODE YELLOW: A serious accident such as a fire, explosion, gas or liquid or other event has occurred or is imminent which seriously affects plant operations and/or poses a threat to residents or industries in the immediate vicinity of the affected industry. THE SITUATION IS NOT UNDER CONTROL AND ONSITE PROTECTIVE ACTIONS WILL BE NECESSARY. The Washington County EOC would activate.

- CODE RED: A severe emergency such as fire, explosion, gas or liquid release or other event has occurred or is imminent which seriously affects plant operations and/or offsite areas well beyond site boundaries. THE SITUATION IS NOT UNDER CONTROL AND PROTECTIVE ACTIONS FOR NEIGHBORING INDUSTRIES AND RESIDENTS ARE NECESSARY. The Washington County EOC would fully activate at a safe location.

3.4 COMMAND AND CONTROL POSITION - The Shift Manager, Control Room Coordinator, Site Director or Emergency Director currently charged with the authorities and responsibilities for directing the emergency response.

3.5 EALs - "Emergency Action Levels"

3.6 EAS - "Emergency Alert System". A mass-media system providing information and instructions to the general public in the event of a nuclear or other public emergency.

3.7 EOF - "Emergency Operations Facility".

3.8 ERDS - "Emergency Response Data System". The system that transmits selected plant parameter data to the NRC Operations Center.

3.9 ERF - "Emergency Response Facility". The Control Room, TSC, OSC and EOF maintained for emergency response.

3.10 ERO - "Emergency Response Organization".

3.11 FTS-ENS phones - NRC notification system phones, , FTS- "Federal Telecommunications System", ENS- "Emergency Notification System".

3.12 GE - "General Emergency".

3.13 KFAB - Designated Local Primary One (LP1) Emergency Alert Station located in Omaha, NE.

3.14 NOUE - "Notification of Unusual Event".

3.15 NRC - "Nuclear Regulatory Commission".

3.16 OSC - "Operations Support Center".

3.17 PARs - "Protective Action Recommendations".

3.18 RELEASE OF RADIOACTIVE MATERIAL - Any discharge of radioactive effluent to the environment that is a result of, or associated with, the emergency event.

3.19 SAE - "Site Area Emergency".

3.20 TSC - "Technical Support Center".

4. PREREQUISITES

4.1 An emergency has been declared or is to be reported per EPIP-OSC-1, Emergency Classification.

5. PROCEDURE

NOTE: Once an event has been declared, notifications must be made within the time requirements of the applicable attachment.

5.1 IF no Emergency has been declared and conditions for a classification level occurred but no longer exist (per EPIP-OSC-1), THEN the event must be **reported** as follows:

5.1.1 Notify both states using the commercial line. Call Iowa at 1-515-281-3231 (24 hour #) and Nebraska at 1-402-471-7430 (normal hours) or 1-402-471-4545 (after hours).

5.1.2 Request that each state have the appropriate duty officer contact the Control Room at 1-402-533-6623 for a report on the event.

5.1.3 Notify the NRC using the FTS-ENS phone (commercial line is a backup) per SO-R-1.

5.1.4 **DO NOT** complete an Attachment 6.1, but log information in the Control Room Log as necessary.

5.2 IF while in a declared emergency, conditions for a higher emergency classification were exceeded but have since been abated or otherwise been resolved prior to declaration, THEN the event must be **reported** as follows:

5.2.1 Perform the notifications described in Attachments 6.1, 6.2 or 6.3 for the states, counties and the NRC for the current classification.

5.2.2 Inform the states, counties and the NRC that a higher classification existed, but was not declared, what conditions existed that caused the emergency classification, and inform them of the time that the higher classification existed.

5.3 Record any additional documentation in FC-EPF-13, Emergency Response Organization Log Sheet, or the Control Room Log.

5.4 **IN THE CONTROL ROOM:** Perform notifications using Attachment 6.1.

5.5 **IN THE TSC OR EOF:** Perform notifications using Attachment 6.2 (TSC) or 6.3 (EOF).

5.6 IF an upgrade or downgrade of the emergency classification occurs prior to completion of the checklist, THEN perform the following:

5.6.1 Complete state/county notifications for the former classification.

5.6.2 Begin another Notification Attachment for the new classification.

5.7 Complete Attachment 6.7 when performing reliefs.

5.8 Retain all documentation (logs, calculation sheets, notes, etc.) generated or used during the emergency.

5.9 At the termination, deliver all documentation to the CR Communicator, or Admin Logistics position for your facility.

6. ATTACHMENTS

6.1 Notification Checklist for the Control Room

Attachment 6.1 - Notification Checklist for the Control Room Page 1 of 5

Classification: ☐ NOUE ☐ Site Area Declared at _____ / _____
Date Time
☐ Alert ☐ General EAL # _____

Command and Control: _____

Relief: (complete Attachment 6.7)_____ Time _____

NOTE: The following steps are ordered in a suggested sequence, but the Command and Control position may modify the sequence, if necessary.

NOTE: Fort Calhoun station made a commitment to place the TSC HVAC System in the FILTERED MODE with 30 minutes of a LOCA. Both the Shift Radiation Protection Technician and the Shift Chemistry Technician have been trained to place the TSC HVAC System in the FILTERED MODE.

	✓	TIME
1. Direct the:		
• Shift Communicator to report to the Control Room and perform Notifications	___	
• Shift Chemistry Technician to report to Control Room and perform dose assessment	___	
• Shift RP Technician to place the TSC HVAC System in the FILTERED MODE and perform Control Room Habitability Checks **[AR 30816]**.	___	_____
2. Is ERO to be activated?		
Yes 2.1 Instruct Communicator to activate the ERO.	___	
2.2 Perform plant announcement per Attachment 6.4.	___	_____
2.3 Go to Step 4.		
No Go to Step 3.		

		✓	TIME
3.	Is a Management Notification (NOUE only) desired?		
Yes	3.1 Direct Communicator to do a Management notification.	___	
	3.2 Perform a plant announcement, using information from the Management Notification tab in the Emergency Planning Activation Instruction Booklet.	___	
	3.3 Have Communicator make the above announcement to Training Center and Administration Building.	___	_____
No	Go to Step 4.		

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

4.	Within 15 minutes of the emergency declaration you must:		
	4.1 Complete required sections of the Emergency Notification Form (FC-1188)	___	
	4.2 Ensure the Communicator notifies the states and counties using the completed Emergency Notification Form.	___	_____
5.	Has the ERO been activated? **[AR 10026]**		
Yes	5.1 Make a plant announcement for the current classification (if not done in Step 2) using Attachment 6.5.	___	
	5.2 Have Communicator make an announcement to Training Center and Administration Building (if not done in Step 2).	___	_____
No	Go to Step 6.		

		✓	TIME
6.	Is a Site Evacuation to North Omaha necessary (required at General Emergency)? **[AR 10026]**		
Yes	6.1 Perform a plant announcement per Attachment 6.5.	___	
	6.2 Have Communicator make an announcement to Training Center and Administration Building, using Evacuation Route checked.	___	_____
No	Go to Step 7.		
7.	Was a plant/site evacuation directed (plant evacuation at a minimum required at Alert or higher)? **[AR 10026]**		
Yes	7.1 Have on shift crew place accountability badges in box.	___	
	7.2 Assign a person to log personnel in/out of the Control Room until relieved by the Accountability Clerk.	___	_____
No	Go to Step 8.		

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

8.	Immediately (not later than one hour from declaration) after notification of the states and counties contact the NRC using the FTS-ENS phone (commercial phone is the backup)		
	8.1 Has NRC previously been notified?		
	Yes Then as a minimum report the classification, time and reason.	___	
	No First report to the NRC, use NRC Form 361 (SO-R-1).		
	8.2 Is classification an Alert or higher?		
	Yes Direct the STA to activate the ERDS system using OI-ERFCS-1.	___	_____
	No Go to Step 9.		

	✓	TIME
9. Use Attachment 6.9 to prepare the notification for the Blair Industrial Park Co-op.	___	_____
10. Ensure the communicator updates the states and counties using an approved Emergency Notification Form (FC-1188)		
• At least hourly (from the time of the last notification) and on an hourly basis until event termination	___	
• Within 15 minutes of a PAR change	___	_____
11. Have the states requested that we activate the ANS (sirens)?		
Yes 11.1 Contact the Emergency Director and request activation.	___	_____
No Go to Step 12.		
12. Has the state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?		
Yes 12.1 Get the applicable EAS Message number from the state and county.	___	
12.2 For the Primary message direct the Communicator to contact the National Weather Service using the Emergency Activations Booklet.	___	
12.3 For all follow-up messages have the Communicator contact KFAB and give them the selected EAS message number for the requesting state.	___	_____
No Go to Step 13.		
13. Review conditions for upgrade or downgrade criteria.		_____

		✓	TIME
14.	Is emergency termination possible?		
Yes	14.1 Review Attachment 6.6 for termination guidelines.	___	
	14.2 Complete and approve the termination Emergency Notification Form (FC-1188).	___	
	14.3 Verify all data on the Emergency Notification Form is accurate.	___	
	14.4 Direct the Communicator to notify the states and counties using the Emergency Notification Form.	___	
	NOTE: If a Sub Area 1 evacuation was ordered Blair Industrial Park Co-Op facilities may not be staffed.		
	14.5 Was the Blair Industrial Park Co-Op notified?		
	Yes Reactivate the system and inform Co-Op members of the event termination.	___	
	No Go to Step 14.6.		
	14.6 Notify the NRC using the FTS-ENS phone (commercial line is backup).	___	
	14.7 Announce Emergency termination using:		
	• Plant Gai-Tronics	___	
	• Facility PA system	___	
	• MOP network for all other Emergency Response Facilities	___	_____
No	Review this list and repeat applicable steps as required.		_____

Attachment 6.2 - Notification Checklist for the TSC

Classification: ☐ NOUE ☐ Site Area Declared at _____/_____
Date Time

☐ Alert ☐ General EAL # _____

Command and Control: _____

Relief: (complete Attachment 6.7)_____ Time _____

NOTE: The following steps are ordered in a suggested sequence, but the Command and Control position may modify the sequence, if necessary.

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

		✓	TIME
1.	Within 15 minutes of the emergency declaration you must:		
	1.1 Complete required sections of the Emergency Notification Form (FC-1188)	___	
	1.2 Ensure the COP Communicator notifies the states and counties using the completed Emergency Notification Form.	___	_____
2.	Is a Site Evacuation to North Omaha necessary (required at General Emergency)? **[AR 10026]**		
Yes	2.1 Go to Attachment 6.5, to determine the evacuation route to be used, (primary or alternate) and the announcement to be made.	___	
	2.2 Direct the COP Communicator to make the evacuation announcement found in the Emergency Planning Activations Instruction Booklet to the Training Center and Administration Building.	___	_____
No	2.3 Make a plant announcement per Attachment 6.5. **[AR 10026]**	___	
	2.4 Direct the COP Communicator to make the announcement for no site evacuation found in the Emergency Planning Activations Instruction Booklet to the Training Center and Administration Building.	___	_____

	✓	TIME

3. Has plant/site accountability been established?

   Yes Go to Step 4. ___

   No 3.1 Ensure CR/OSC/TSC Accountability Clerks are logging personnel in/out (if OSC/TSC are activated). ___

   3.2 Ensure that the TSC Security Coordinator initiates the accountability procedure, if the TSC is activated. ___

   3.3 Ensure the accountability completion time is documented in the Control Room Log. ___ _____

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

4. Immediately (not later than one hour from declaration) after notification of the states and counties ensure the NRC is contacted using the FTS-ENS phone (commercial phone is the backup)

   4.1 As a minimum, report new classification time and reason. ___

   4.2 Is new classification Alert or higher?

   Yes Ensure the Control Room activated the ERDS using OI-ERFCS-1. ___ _____

   No Go to Step 5.

5. Direct the Control Room to use Attachment 6.9 to prepare the notification for the Blair Industrial Park Co-Op. ___ _____

6. Ensure the COP Communicator updates the states and counties using an approved Emergency Notification Form (FC-1188)

   - At least hourly (from the time of the last notification) and on an hourly basis thereafter ___
   - Within 15 minutes of a PAR change ___ _____

		✓	TIME
7.	Have the states requested that we activate the ANS (sirens)?		
Yes	7.1 Contact the EOF Emergency Director and request ANS activation.	___	_____
No	Go to Step 8.		
8.	Has a state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?		
Yes	8.1 Get the applicable EAS Message number from the state and county.	___	
	8.2 For the preliminary message direct the COP Communicator to contact the National Weather Service using the Emergency Activations Booklet.	___	
	8.3 For all follow-up messages have the COP Communicator contact KFAB and give them the selected EAS message number for the requesting state.	___	_____
No	Go to Step 9.		
9.	Periodically review conditions for event upgrade or downgrade criteria.		_____
10.	Is emergency termination possible?		
Yes	10.1 Review Attachment 6.6 for termination guidelines.	___	
	10.2 Complete and approve the termination Emergency Notification Form (FC-1188).	___	
	10.3 Verify that all Emergency Notification Form data is correct.	___	
	10.4 Direct the COP Communicator to notify the states and counties using the Emergency Notification Form.	___	

		✓	TIME
	NOTE: If a Sub Area 1 evacuation was ordered, Blair Industrial Park Co-Op facilities may not be staffed.		
10.5	Was the Blair Industrial Park Co-Op notified?		
	Yes Have the Control Room inform Co-Op members of the event termination.	___	
	No Go to Step 10.6.		
10.6	Notify the NRC using the FTS-ENS phone (commercial line is backup).	___	
10.7	Announce Emergency termination using:		
	• Plant Gai-Tronics	___	
	• Facility PA system	___	
	• MOP network for all other Emergency Response Facilities	___	_____
No	Review this list and repeat applicable steps as required.		_____

Attachment 6.3 - Notification Checklist for the EOF

Classification: ☐ NOUE ☐ Site Area Declared at _____/_____
Date Time

☐ Alert ☐ General EAL # _____

Command and Control: _____

Relief: (complete Attachment 6.7)_____ Time _____

NOTE: The following steps are ordered in a suggested sequence, but the Command and Control position may modify the sequence, if necessary.

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

		✓	TIME
1.	Within 15 minutes of the emergency declaration you must:		
	1.1 Complete required sections of the Emergency Notification Form.	___	
	1.2 Ensure the COP Communicator notifies the states and counties using the completed Emergency Notification Form.	___	_____
2.	Is a Site Evacuation to North Omaha necessary (required at General Emergency)? **[AR 10026]**		
Yes	2.1 Go to Attachment 6.5, to determine the evacuation route to be used, (primary or secondary) and the announcement to be made.	___	
	2.2 Direct the COP Communicator to make the evacuation announcement found in the Emergency Planning Activations Instructions Booklet to the Training Center/Administration Building.	___	_____
No	2.3 Direct the Control Room to make plant announcement per Attachment 6.5. **[AR 10026]**	___	
	2.4 Direct the COP Communicator to make the announcement for no site evacuation found in the Emergency Planning Activations Instruction Booklet to the Training Center and Administration Building.	___	_____

	✓	TIME

3. Has plant/site accountability been established? (AR 10026)

   Yes Go to Step 4.

   No 3.1 Direct Site Director to initiate personnel accountability. ___ _____

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

4. Immediately (not later than one hour from declaration) after notification of the states and counties ensure the NRC is contacted using the FTS-ENS phone (commercial phone is the backup)

   4.1 As a minimum, report new classification time and reason. ___

   4.2 Is new classification Alert or higher?

   Yes Ensure the Control Room activated the ERDS using OI-ERFCS-1. ___ _____

   No Go to Step 5.

5. Direct the Control Room to use Attachment 6.9 to prepare the notification for the Blair Industrial Park Co-Op. ___ _____

6. Ensure the COP Communicator updates the states and counties using an approved Emergency Notification Form (FC-1188).

   - At least hourly (from the time of the last notification) and on an hourly basis thereafter until event termination ___
   - Within 15 minutes of a PAR change ___ _____

7. Ensure that the staffs of each facility are given timely updates on any significant change in plant or release status, even if the emergency classification remains unchanged. ___ _____

		✓	TIME
8.	Have the states requested that we activate the ANS (sirens)?		
	Yes 8.1 Direct the Administrative Logistics Manager to activate the ANS activation.	___	_____
	No Go to Step 9.		
9.	Has a state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?		
	Yes 9.1 Get the applicable EAS Message number from the state or county.	___	
	9.2 For the preliminary message direct the COP Communicator to contact the National Weather Service using the Emergency Activations Booklet.	___	
	9.3 For all follow-up messages have the COP Communicator contact KFAB and give them the selected EAS message number for the requesting state.	___	_____
	No Go to Step 10.		
10.	Periodically review conditions for event upgrade or downgrade criteria.		_____
11.	Is emergency termination possible?		
	Yes 11.1 Review Attachment 6.6 for termination guidelines.	___	
	11.2 Verify that Emergency Notification Form (FC-1188) data is correct.	___	
	11.3 Complete and approve the termination Emergency Notification Form.	___	
	11.4 Direct the COP Communicator to notify the states and counties using the Emergency Notification Form.	___	

✓ TIME

NOTE: If a Sub Area 1 evacuation was ordered, Blair Industrial Park Co-Op facilities may not be staffed.

11.5 Was the Blair Industrial Park Co-Op notified?

Yes Have the Control Room inform Co-Op members of the event termination. ___

No Go to Step 11.6.

11.6 Notify the NRC using the FTS-ENS phone (commercial line is backup). ___

11.7 Direct the Site Director to announce the emergency termination using:

- Plant Gai-Tronics ___
- Facility PA system ___
- MOP network for all other Emergency Response Facilities ___ _____

No Review this list and repeat applicable steps as required. _____

Attachment 6.4 - ERO Activation Announcement

(✓)

1. Select from the options below, the information to be announced. ___
2. Notify Security if a plant/site evacuation is planned. ___
3. Sound the Emergency Alarm for approximately 30 seconds. ___
4. Read the selected announcement over the Gai-Tronics. ___
5. Again sound the Emergency Alarm for approximately 30 seconds. ___
6. Again read the selected announcement over the Gai-Tronics. ___

ANNOUNCEMENT

"Attention all personnel...Attention all personnel...A(n) (Classification) **has been declared, due to ...** (state reason) **... All Emergency Response Organization personnel report to their assigned facility immediately...Personnel in the Radiation Controlled Area proceed to the RCA Access Point...No eating, drinking, smoking or chewing is allowed anywhere in THE OWNER CONTROLLED AREA until further notice...All other personnel:**

Optional: NOUE _____ **Continue with normal duties**

Optional: NOUE
Required: Alert
Site Area
_____ **Evacuate to the Admin Building using the South Security Access Point**

Optional: Alert
Site Area
Required: General
_____ **Evacuate to the North Omaha Power Station using the:**

_____ **PRIMARY Route.** (No release, or release with wind direction ≥57° and <304°)

_____ **ALTERNATE Route.** (wind direction from ≥304° or <57° with known release)

Attachment 6.5 - Classification Announcement

(✓)

NOTE: The Site Director and the Emergency Director should select the information to be announced and direct the Control Room to sound the Emergency Alarm and make the Gai-tronics announcements.

1. Select, from the options below, the information to be announced. ___
2. Notify Security if a plant/site evacuation is planned. ___
3. Sound the Emergency Alarm for approximately 30 seconds. ___
4. Read the selected announcement over the Gai-Tronics. ___
5. Sound the Emergency Alarm for approximately 30 seconds (second time). ___
6. Read the selected announcement over the Gai-Tronics (second time). ___
7. At the EOF, verify that the above steps have been completed using the Operations Liaison Circuit or other communication. ___

ANNOUNCEMENT

"Attention all personnel...Attention all personnel...A(n) __(Classification)__ **has been declared, due to...**(state reason)**...No eating, drinking, smoking or chewing is allowed anywhere in THE OWNER CONTROLLED AREA until further notice"**... (Continue only if a plant/site evacuation is required)

"All Non-Emergency Response personnel must:

Optional: NOUE
Required: Alert
Site Area

_____ **Evacuate to the Administration Building using the South Security Access Point**

Optional: Alert
Site Area
Required: General

_____ **Evacuate to the North Omaha Power Station using the:**

_____ **PRIMARY Route.** (No release, or release with wind direction ≥57° and <304°)

_____ **ALTERNATE Route.** (wind direction from ≥304° or <57° with known release)

Attachment 6.6 - Emergency Termination Guidelines Page 1 of 2

NOTE: Prior to recommending establishment of recovery operations (if necessary) and termination of the Emergency Response Organization, the following conditions should be considered.

1. A Recovery Operations Manager has been designated per EPIP-EOF-19 if extensive recovery actions are needed to return the plant or environs to a pre-accident status.

2. Radiation Protection personnel are/have been monitoring access to any radiologically controlled areas of the plant necessary for recovery operations.

   COMMENTS: _____

   _____

   _____

3. Off-site conditions allow access of personnel and needed support resources to the plant.

   COMMENTS: _____

   _____

   _____

4. Plant status with respect to Technical Specifications has been evaluated by the Command and Control position **OR** Technical Support personnel if ERO was activated.

   COMMENTS: _____

   _____

   _____

5. Emergency termination recommendations have been discussed with the NRC Operations Center.

   COMMENTS: _____

   _____

   _____

6. The states of Nebraska and Iowa and the counties have been notified of the pending termination.

   COMMENTS: _____

   _____

   _____

7. The transition from Emergency to Recovery phase has been discussed with the designated Recovery Operations Manager and an initial recovery operations meeting has been scheduled, if needed.

   COMMENTS: _____

   _____

   _____

Additional Discussions/Comments:

_____

_____

_____

_____

_____

_____

_____

Attachment 6.7 - Relief Checklist **[AR 07071]**

NOTE: Prior to assuming Command and Control of an emergency, Steps 1 through 8 of the following steps must be completed.

	(✓)
1. Review/Discuss cause of the emergency condition.	___
2. Review/Discuss current status of the emergency condition and classification level.	___
3. Review/Discuss current plant status.	___
4. Review/Discuss each step of current Notification Checklist (Attachments 6.1, 6.2 or 6.3), including any county/state/NRC notifications made and determine any steps **NOT** yet performed.	___
5. Review and discuss when next FC-1188 should be sent to state/counties.	___
6. Determine activation status of the ERO and ERF facilities:	
Control Room: □ ERO Positions Activated	
TSC: □ Activated □ In Progress	
OSC: □ Activated □ In Progress	
EOF: □ Activated □ In Progress	
MRC: □ Activated □ In Progress □ N/A	___
7. Determine current status of dose assessment, habitability checks, radiological surveys and other tasks being performed by the Emergency Response Organization.	___
8. Determine if position being relieved is ready to complete the transfer of Command and Control.	___
9. WHEN both positions are ready, THEN perform the transfer of Command and Control.	___
10. Announce your name, and who has Command and Control to the lead personnel in the following facilities, if staffed:	
Control Room, TSC, OSC, EOF and MRC.	___

11. Sign your name, title and the relief time in the "Relief" space of the Notification Checklist. Initiate the appropriate Notification Checklist if transfer is between facilities. ___

12. Log relief information in the Command and Control position log. ___

Attachment 6.8 - Command and Control Position Responsibilities

The following responsibilities CAN NOT BE DELEGATED by the Command and Control position. The responsibility of their completion rests with the Command and Control position until relieved by another qualified individual or the emergency is terminated. The Command and Control position may assign other personnel to assist in conducting the actions necessary.

1. Overall **COMMAND AND CONTROL** of the Emergency Response Organization.

2. Ensuring the proper **CLASSIFICATION AND DECLARATION** of the emergency situation is made in accordance with EPIP-OSC-1 and is periodically reviewed to determine if the classification should be upgraded, downgraded or terminated.

3. Ensuring all required **NOTIFICATIONS** are made to appropriate state, local and federal officials.

4. Ensuring any appropriate **PROTECTIVE ACTION RECOMMENDATIONS** (PARs) are provided to offsite officials.

5. Authorizing OPPD emergency worker exposure extensions beyond the Federal Radiation Protection Guidance.

6. Authorizing issuance of Potassium Iodide for OPPD emergency workers.

The Command and Control position also has the following responsibilities which may be delegated to other personnel, as necessary.

7. Request for assistance from federal agencies.

8. Authorizing any emergency information to be released to the media or the general public.

9. Coordinating the transfer of emergency information from the Emergency Response Organization (ERO) to other OPPD and outside organizations called upon to assist.

10. Ensuring a timely and complete turnover of information to any qualified relief.

11. Providing information to authorized representatives of the states of Nebraska, and Iowa, and associated local governments.

12. Ensuring plant operations are in compliance with Technical Specifications. If deviations are necessary to protect the public health and safety, they must be approved, as a minimum, by a senior licensed operator, prior to taking the action.

Attachment 6.9 - Classifying and Reporting Events to the Blair Industrial Park Co-Op

NOTE: The purpose of this attachment is to keep members of the Blair Industrial Park Co-Op aware of significant events that have occurred at the Fort Calhoun Station. It is intended that the system be used for notification of emergency situations which have or are anticipated to have visibility or impact beyond the Fort Calhoun station property lines. These situations may include, but are not limited to:

- Any gas or chemical leaks of significant magnitude
- Any radiation leaks of significant magnitude
- Any "news worthy" information (such as major fires, explosions, large medical response, etc.) which could result in news media interviewing neighboring industries
- Any plant evolutions resulting in large noises or having a visual impact which can be heard or seen by the public

1. INITIAL ASSESSMENT

NOTE: FC-EPF-38 is designed to aid you in gathering data prior to contacting members of the Co-Op. Existing FC-1188 and/or SO-R-1 can be used to provide the necessary information.

1.1 If notified of an onsite toxic chemical/hazardous material or radiological release, complete Sections 3, 5, 6 and 7 of FC-EPF-38. If all the information is not known, leave that section blank. DO NOT GIVE UNVERIFIED INFORMATION.

NOTE: Assistance in classification may be obtained from the Shift Chemist.

2. EVENT CLASSIFICATION

2.1 Report the event as classified (NOUE, ALERT, SITE AREA or GENERAL EMERGENCY) in Section 2 of FC-EPF-38.

NOTE: If the involved chemical is not listed, or further information on chemicals is desired refer to SO-G-106, "Hazardous Material Chemical Assessment and Emergency Response Guidelines", the Material Safety Data Sheet, if available, or The North American Emergency Response Guidebook.

NOTE: If the involved chemical is not listed below, refer to the North American Emergency Response Guidebook for guidelines.

2.2 If the involved chemical is one of the following, consider it a SMALL HAZARD:

- Acetylene
- Amerzine
- Chemtreat
- Ethanolamine
- Diesel Fuel
- Hydrazine
- Hydrogen

2.3 Use the guide below to classify the event class. The four codes are further defined in the definitions section of this procedure:

CODE	HAZARD POTENTIAL	CONDITIONS
Blue	Small or large	Situation under control - **NO** offsite threat
Green	Small or large	Situation **NOT** under control - No immediate offsite threat
Yellow	Large	Situation **NOT** under control - Onsite protective actions will be needed
Red	Large	Situation **NOT** under control - Protective actions for neighboring industries and residents needed

NOTE: All members of the Co-Op are staffed 24 hours per day except Kelly Ryan and Agro. MACC may not have staff onsite on some weekends and/or holidays.

NOTE: Alternate emergency numbers and routine day to day contact numbers for all Co-Op members and other vital agencies may be found in the Emergency Phone Book under the Blair Industrial Co-Op tab.

NOTE: All Notifications to the Blair Industrial Park Co-Op should be made through the Control Room if possible.

3. NOTIFICATIONS

3.1 Obtain the instructions marked "Blair Industrial Park Co-Op Notification" from the Emergency Planning Activation Instructions Booklet.

3.2 Direct the Communicator to perform the Blair Industrial Park Co-Op Notifications.

3.3 If event is on-going, update the Blair Industrial Park Co-Op members as conditions warrant.

WP8

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Fort Calhoun Station
Unit No. 1

EPIP-OSC-2

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: COMMAND AND CONTROL POSITION ACTIONS/NOTIFICATIONS

FC-68 Number: EC 29389

Reason for Change: Add instruction for the Shift RP and Chemist to place the TSC HVAC System in the FILTERED MODE. Required by a commitment made in LIC-01-0109.

Requestor: M. Reller

Preparer: M. Reller

ISSUED: 02-04-02 3:00 pm

R40

COMMAND AND CONTROL POSITION ACTIONS/NOTIFICATIONS

NON-SAFETY RELATED

1. PURPOSE

1.1 This procedure provides guidance to the Command and Control position for implementing the Emergency Plan, making required notifications, transferring Command and Control, performing classification upgrades/downgrades and event terminations.

2. REFERENCES/COMMITMENT DOCUMENTS

2.1 SO-R-1, "Reportability Determination"

2.2 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors

2.3 EPIP-OSC-1, "Emergency Classification"

2.4 EPIP-OSC-15, "Communicator Actions"

2.5 EPIP-EOF-6, "Dose Assessment"

2.6 EPIP-EOF-7, "Protective Action Guidelines"

2.7 EPIP-EOF-11, "Dosimetry Records, Exposure Extensions, and Habitability"

2.8 EPIP-EOF-21, "Potassium Iodide Issuance"

2.9 EPIP-EOF-19, "Recovery Actions"

2.10 EPIP-TSC-1, "Activation of the Technical Support Center"

2.11 EPIP-EOF-1, "Activation of the Emergency Operations Facility"

2.12 OI-ERFCS-1, "Emergency Response Facility Computer System"

2.13 FC-1188, "Emergency Notification Form"

2.14 FC-EPF-38, "Blair Industrial Park Co-Op, Event Notification Form"

2.15 Emergency Telephone Book

2.16 Commitments (other than Ongoing)

- AR 10026, NRC-89-0232
- AR 07071, LIC-88-0726

2.17 Ongoing Commitments

- AR 30816, LIC-01-0189

3. DEFINITIONS

3.1 ANS - "Alert Notification System" The system of sirens maintained in OPPD's designated EPZ (Emergency Planning Zone).

3.2 BLAIR INDUSTRIAL PARK CO-OP: EMERGENCY NOTIFICATION SYSTEM - An organization of industries including Fort Calhoun Station that have banded together to form a warning system to notify member industries and the Washington County Dispatch Center of a potential or actual release of toxic chemicals and/or hazardous material from its facility.

3.3 CODE SYSTEM - A system devised by members of the Blair Industrial Park Co-Op to classify events that have occurred at the initiating facilities site. These codes are:

- CODE BLUE: A minor emergency or problem such as a fire, explosion, gas or liquid release, unusual noise or odor, abnormal or extended flaring activity or other internal event has occurred which may be visible or detectable by off-site people, but which presents NO OFFSITE THREAT and requires no protective actions. The situation is under control.

- CODE GREEN: An emergency such as a fire, explosion, gas or liquid release or other event has occurred which affects plant operations and/or has the potential to escalate to a more serious emergency. THE SITUATION IS NOT UNDER CONTROL BUT POSES NO IMMEDIATE OFFSITE THREAT. The Washington County EOC may activate.

- CODE YELLOW: A serious accident such as a fire, explosion, gas or liquid or other event has occurred or is imminent which seriously affects plant operations and/or poses a threat to residents or industries in the immediate vicinity of the affected industry. THE SITUATION IS NOT UNDER CONTROL AND ONSITE PROTECTIVE ACTIONS WILL BE NECESSARY. The Washington County EOC would activate.

- CODE RED: A severe emergency such as fire, explosion, gas or liquid release or other event has occurred or is imminent which seriously affects plant operations and/or offsite areas well beyond site boundaries. THE SITUATION IS NOT UNDER CONTROL AND PROTECTIVE ACTIONS FOR NEIGHBORING INDUSTRIES AND RESIDENTS ARE NECESSARY. The Washington County EOC would fully activate at a safe location.

3.4 COMMAND AND CONTROL POSITION - The Shift Manager, Control Room Coordinator, Site Director or Emergency Director currently charged with the authorities and responsibilities for directing the emergency response.

3.5 EALs - "Emergency Action Levels"

3.6 EAS - "Emergency Alert System". A mass-media system providing information and instructions to the general public in the event of a nuclear or other public emergency.

3.7 EOF - "Emergency Operations Facility".

3.8 ERDS - "Emergency Response Data System". The system that transmits selected plant parameter data to the NRC Operations Center.

3.9 ERF - "Emergency Response Facility". The Control Room, TSC, OSC and EOF maintained for emergency response.

3.10 ERO - "Emergency Response Organization".

3.11 FTS-ENS phones - NRC notification system phones, , FTS- "Federal Telecommunications System", ENS- "Emergency Notification System".

3.12 GE - "General Emergency".

3.13 KFAB - Designated Local Primary One (LP1) Emergency Alert Station located in Omaha, NE.

3.14 NOUE - "Notification of Unusual Event".

3.15 NRC - "Nuclear Regulatory Commission".

3.16 OSC - "Operations Support Center".

3.17 PARs - "Protective Action Recommendations".

3.18 RELEASE OF RADIOACTIVE MATERIAL - Any discharge of radioactive effluent to the environment that is a result of, or associated with, the emergency event.

3.19 SAE - "Site Area Emergency".

3.20 TSC - "Technical Support Center".

4. PREREQUISITES

4.1 An emergency has been declared or is to be reported per EPIP-OSC-1, Emergency Classification.

5. PROCEDURE

NOTE: Once an event has been declared, notifications must be made within the time requirements of the applicable attachment.

5.1 IF no Emergency has been declared and conditions for a classification level occurred but no longer exist (per EPIP-OSC-1), THEN the event must be **reported** as follows:

5.1.1 Notify both states using the commercial line. Call Iowa at (24 hour #) and Nebraska at (normal hours) or (after hours).

5.1.2 Request that each state have the appropriate duty officer contact the Control Room at for a report on the event.

PROPRIETARY INFORMATION HAS BEEN REMOVED FROM THIS PAGE

5.1.3 Notify the NRC using the FTS-ENS phone (commercial line is a backup) per SO-R-1.

5.1.4 **DO NOT** complete an Attachment 6.1, but log information in the Control Room Log as necessary.

5.2 IF while in a declared emergency, conditions for a higher emergency classification were exceeded but have since been abated or otherwise been resolved prior to declaration, THEN the event must be **reported** as follows:

5.2.1 Perform the notifications described in Attachments 6.1, 6.2 or 6.3 for the states, counties and the NRC for the current classification.

5.2.2 Inform the states, counties and the NRC that a higher classification existed, but was not declared, what conditions existed that caused the emergency classification, and inform them of the time that the higher classification existed.

5.3 Record any additional documentation in FC-EPF-13, Emergency Response Organization Log Sheet, or the Control Room Log.

5.4 **IN THE CONTROL ROOM:** Perform notifications using Attachment 6.1.

5.5 **IN THE TSC OR EOF:** Perform notifications using Attachment 6.2 (TSC) or 6.3 (EOF).

5.6 IF an upgrade or downgrade of the emergency classification occurs prior to completion of the checklist, THEN perform the following:

5.6.1 Complete state/county notifications for the former classification.

5.6.2 Begin another Notification Attachment for the new classification.

5.7 Complete Attachment 6.7 when performing reliefs.

5.8 Retain all documentation (logs, calculation sheets, notes, etc.) generated or used during the emergency.

5.9 At the termination, deliver all documentation to the CR Communicator, or Admin Logistics position for your facility.

6. ATTACHMENTS

6.1 Notification Checklist for the Control Room

Attachment 6.1 - Notification Checklist for the Control Room Page 1 of 5

Classification: ☐ NOUE ☐ Site Area Declared at _____ / _____
Date Time

☐ Alert ☐ General EAL # _____

Command and Control: _____

Relief: (complete Attachment 6.7)_____ Time _____

NOTE: The following steps are ordered in a suggested sequence, but the Command and Control position may modify the sequence, if necessary.

NOTE: Fort Calhoun station made a commitment to place the TSC HVAC System in the FILTERED MODE with 30 minutes of a LOCA. Both the Shift Radiation Protection Technician and the Shift Chemistry Technician have been trained to place the TSC HVAC System in the FILTERED MODE.

	✓	TIME
1. Direct the:		
• Shift Communicator to report to the Control Room and perform Notifications	___	
• Shift Chemistry Technician to report to Control Room and perform dose assessment	___	
• Shift RP Technician to place the TSC HVAC System in the FILTERED MODE and perform Control Room Habitability Checks **[AR 30816]**.	___	_____
2. Is ERO to be activated?		
Yes 2.1 Instruct Communicator to activate the ERO.	___	
2.2 Perform plant announcement per Attachment 6.4.	___	_____
2.3 Go to Step 4.		
No Go to Step 3.		

		✓	TIME
3.	Is a Management Notification (NOUE only) desired?		
Yes	3.1 Direct Communicator to do a Management notification.	___	
	3.2 Perform a plant announcement, using information from the Management Notification tab in the Emergency Planning Activation Instruction Booklet.	___	
	3.3 Have Communicator make the above announcement to Training Center and Administration Building.	___	_____
No	Go to Step 4.		

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

4.	Within 15 minutes of the emergency declaration you must:		
	4.1 Complete required sections of the Emergency Notification Form (FC-1188)	___	
	4.2 Ensure the Communicator notifies the states and counties using the completed Emergency Notification Form.	___	_____
5.	Has the ERO been activated? **[AR 10026]**		
Yes	5.1 Make a plant announcement for the current classification (if not done in Step 2) using Attachment 6.5.	___	
	5.2 Have Communicator make an announcement to Training Center and Administration Building (if not done in Step 2).	___	_____
No	Go to Step 6.		

	✓	TIME

6. Is a Site Evacuation to North Omaha necessary (required at General Emergency)? **[AR 10026]**

Yes 6.1 Perform a plant announcement per Attachment 6.5. ___

6.2 Have Communicator make an announcement to Training Center and Administration Building, using Evacuation Route checked. ___ _____

No Go to Step 7.

7. Was a plant/site evacuation directed (plant evacuation at a minimum required at Alert or higher)? **[AR 10026]**

Yes 7.1 Have on shift crew place accountability badges in box. ___

7.2 Assign a person to log personnel in/out of the Control Room until relieved by the Accountability Clerk. ___ _____

No Go to Step 8.

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

8. Immediately (not later than one hour from declaration) after notification of the states and counties contact the NRC using the FTS-ENS phone (commercial phone is the backup)

8.1 Has NRC previously been notified?

Yes Then as a minimum report the classification, time and reason. ___

No First report to the NRC, use NRC Form 361 (SO-R-1).

8.2 Is classification an Alert or higher?

Yes Direct the STA to activate the ERDS system using OI-ERFCS-1. ___ _____

No Go to Step 9.

	✓	TIME
9. Use Attachment 6.9 to prepare the notification for the Blair Industrial Park Co-op.	___	_____
10. Ensure the communicator updates the states and counties using an approved Emergency Notification Form (FC-1188)		
• At least hourly (from the time of the last notification) and on an hourly basis until event termination	___	
• Within 15 minutes of a PAR change	___	_____
11. Have the states requested that we activate the ANS (sirens)?		
Yes 11.1 Contact the Emergency Director and request activation.	___	_____
No Go to Step 12.		
12. Has the state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?		
Yes 12.1 Get the applicable EAS Message number from the state and county.	___	
12.2 For the Primary message direct the Communicator to contact the National Weather Service using the Emergency Activations Booklet.	___	
12.3 For all follow-up messages have the Communicator contact KFAB and give them the selected EAS message number for the requesting state.	___	_____
No Go to Step 13.		
13. Review conditions for upgrade or downgrade criteria.		_____

		✓	TIME
14.	Is emergency termination possible?		
Yes	14.1 Review Attachment 6.6 for termination guidelines.	___	
	14.2 Complete and approve the termination Emergency Notification Form (FC-1188).	___	
	14.3 Verify all data on the Emergency Notification Form is accurate.	___	
	14.4 Direct the Communicator to notify the states and counties using the Emergency Notification Form.	___	
	NOTE: If a Sub Area 1 evacuation was ordered Blair Industrial Park Co-Op facilities may not be staffed.		
	14.5 Was the Blair Industrial Park Co-Op notified?		
	Yes Reactivate the system and inform Co-Op members of the event termination.	___	
	No Go to Step 14.6.		
	14.6 Notify the NRC using the FTS-ENS phone (commercial line is backup).	___	
	14.7 Announce Emergency termination using:		
	• Plant Gai-Tronics	___	
	• Facility PA system	___	
	• MOP network for all other Emergency Response Facilities	___	_____
No	Review this list and repeat applicable steps as required.		_____

Attachment 6.2 - Notification Checklist for the TSC

Classification: ☐ NOUE ☐ Site Area Declared at _____ / _____
Date Time

☐ Alert ☐ General EAL # _____

Command and Control: _____

Relief: (complete Attachment 6.7)_____ Time _____

NOTE: The following steps are ordered in a suggested sequence, but the Command and Control position may modify the sequence, if necessary.

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

		✓	TIME
1.	Within 15 minutes of the emergency declaration you must:		
	1.1 Complete required sections of the Emergency Notification Form (FC-1188)	___	
	1.2 Ensure the COP Communicator notifies the states and counties using the completed Emergency Notification Form.	___	_____
2.	Is a Site Evacuation to North Omaha necessary (required at General Emergency)? **[AR 10026]**		
Yes	2.1 Go to Attachment 6.5, to determine the evacuation route to be used, (primary or alternate) and the announcement to be made.	___	
	2.2 Direct the COP Communicator to make the evacuation announcement found in the Emergency Planning Activations Instruction Booklet to the Training Center and Administration Building.	___	_____
No	2.3 Make a plant announcement per Attachment 6.5. **[AR 10026]**	___	
	2.4 Direct the COP Communicator to make the announcement for no site evacuation found in the Emergency Planning Activations Instruction Booklet to the Training Center and Administration Building.	___	_____

		✓	TIME
3.	Has plant/site accountability been established?		
	Yes Go to Step 4.	___	
	No 3.1 Ensure CR/OSC/TSC Accountability Clerks are logging personnel in/out (if OSC/TSC are activated).	___	
	3.2 Ensure that the TSC Security Coordinator initiates the accountability procedure, if the TSC is activated.	___	
	3.3 Ensure the accountability completion time is documented in the Control Room Log.	___	_____

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

4.	Immediately (not later than one hour from declaration) after notification of the states and counties ensure the NRC is contacted using the FTS-ENS phone (commercial phone is the backup)		
	4.1 As a minimum, report new classification time and reason.	___	
	4.2 Is new classification Alert or higher?		
	Yes Ensure the Control Room activated the ERDS using OI-ERFCS-1.	___	_____
	No Go to Step 5.		
5.	Direct the Control Room to use Attachment 6.9 to prepare the notification for the Blair Industrial Park Co-Op.	___	_____
6.	Ensure the COP Communicator updates the states and counties using an approved Emergency Notification Form (FC-1188)		
	• At least hourly (from the time of the last notification) and on an hourly basis thereafter	___	
	• Within 15 minutes of a PAR change	___	_____

		✓	TIME
7.	Have the states requested that we activate the ANS (sirens)?		
	Yes 7.1 Contact the EOF Emergency Director and request ANS activation.	___	_____
	No Go to Step 8.		
8.	Has a state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?		
	Yes 8.1 Get the applicable EAS Message number from the state and county.	___	
	8.2 For the preliminary message direct the COP Communicator to contact the National Weather Service using the Emergency Activations Booklet.	___	
	8.3 For all follow-up messages have the COP Communicator contact KFAB and give them the selected EAS message number for the requesting state.	___	_____
	No Go to Step 9.		
9.	Periodically review conditions for event upgrade or downgrade criteria.		_____
10.	Is emergency termination possible?		
	Yes 10.1 Review Attachment 6.6 for termination guidelines.	___	
	10.2 Complete and approve the termination Emergency Notification Form (FC-1188).	___	
	10.3 Verify that all Emergency Notification Form data is correct.	___	
	10.4 Direct the COP Communicator to notify the states and counties using the Emergency Notification Form.	___	

		✓	TIME
	NOTE: If a Sub Area 1 evacuation was ordered, Blair Industrial Park Co-Op facilities may not be staffed.		
10.5	Was the Blair Industrial Park Co-Op notified?		
	Yes Have the Control Room inform Co-Op members of the event termination.	___	
	No Go to Step 10.6.		
10.6	Notify the NRC using the FTS-ENS phone (commercial line is backup).	___	
10.7	Announce Emergency termination using:		
	• Plant Gai-Tronics	___	
	• Facility PA system	___	
	• MOP network for all other Emergency Response Facilities	___	_____
No	Review this list and repeat applicable steps as required.		_____

Attachment 6.3 - Notification Checklist for the EOF

Classification: ☐ NOUE ☐ Site Area ☐ Alert ☐ General

Declared at _____/_____
Date Time

EAL # _____

Command and Control: _____

Relief: (complete Attachment 6.7)_____ Time _____

NOTE: The following steps are ordered in a suggested sequence, but the Command and Control position may modify the sequence, if necessary.

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

		✓	TIME
1.	Within 15 minutes of the emergency declaration you must:		
	1.1 Complete required sections of the Emergency Notification Form.	___	
	1.2 Ensure the COP Communicator notifies the states and counties using the completed Emergency Notification Form.	___	_____
2.	Is a Site Evacuation to North Omaha necessary (required at General Emergency)? **[AR 10026]**		
	Yes 2.1 Go to Attachment 6.5, to determine the evacuation route to be used, (primary or secondary) and the announcement to be made.	___	
	2.2 Direct the COP Communicator to make the evacuation announcement found in the Emergency Planning Activations Instructions Booklet to the Training Center/Administration Building.	___	_____
	No 2.3 Direct the Control Room to make plant announcement per Attachment 6.5. **[AR 10026]**	___	
	2.4 Direct the COP Communicator to make the announcement for no site evacuation found in the Emergency Planning Activations Instruction Booklet to the Training Center and Administration Building.	___	_____

	✓	TIME

3. Has plant/site accountability been established? (AR 10026)

   Yes Go to Step 4.

   No 3.1 Direct Site Director to initiate personnel accountability. ___ _____

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

4. Immediately (not later than one hour from declaration) after notification of the states and counties ensure the NRC is contacted using the FTS-ENS phone (commercial phone is the backup)

   4.1 As a minimum, report new classification time and reason. ___

   4.2 Is new classification Alert or higher?

   Yes Ensure the Control Room activated the ERDS using OI-ERFCS-1. ___ _____

   No Go to Step 5.

5. Direct the Control Room to use Attachment 6.9 to prepare the notification for the Blair Industrial Park Co-Op. ___ _____

6. Ensure the COP Communicator updates the states and counties using an approved Emergency Notification Form (FC-1188).

   - At least hourly (from the time of the last notification) and on an hourly basis thereafter until event termination ___
   - Within 15 minutes of a PAR change ___ _____

7. Ensure that the staffs of each facility are given timely updates on any significant change in plant or release status, even if the emergency classification remains unchanged. ___ _____

		✓	TIME
8.	Have the states requested that we activate the ANS (sirens)?		
Yes	8.1 Direct the Administrative Logistics Manager to activate the ANS activation.	___	_____
No	Go to Step 9.		
9.	Has a state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?		
Yes	9.1 Get the applicable EAS Message number from the state or county.	___	
	9.2 For the preliminary message direct the COP Communicator to contact the National Weather Service using the Emergency Activations Booklet.	___	
	9.3 For all follow-up messages have the COP Communicator contact KFAB and give them the selected EAS message number for the requesting state.	___	_____
No	Go to Step 10.		
10.	Periodically review conditions for event upgrade or downgrade criteria.		_____
11.	Is emergency termination possible?		
Yes	11.1 Review Attachment 6.6 for termination guidelines.	___	
	11.2 Verify that Emergency Notification Form (FC-1188) data is correct.	___	
	11.3 Complete and approve the termination Emergency Notification Form.	___	
	11.4 Direct the COP Communicator to notify the states and counties using the Emergency Notification Form.	___	

✓ TIME

NOTE: If a Sub Area 1 evacuation was ordered, Blair Industrial Park Co-Op facilities may not be staffed.

11.5 Was the Blair Industrial Park Co-Op notified?

Yes Have the Control Room inform Co-Op members of the event termination. ___

No Go to Step 11.6.

11.6 Notify the NRC using the FTS-ENS phone (commercial line is backup). ___

11.7 Direct the Site Director to announce the emergency termination using:

- Plant Gai-Tronics ___
- Facility PA system ___
- MOP network for all other Emergency Response Facilities ___ _____

No Review this list and repeat applicable steps as required. _____

Attachment 6.4 - ERO Activation Announcement

(✓)

1. Select from the options below, the information to be announced. ___
2. Notify Security if a plant/site evacuation is planned. ___
3. Sound the Emergency Alarm for approximately 30 seconds. ___
4. Read the selected announcement over the Gai-Tronics. ___
5. Again sound the Emergency Alarm for approximately 30 seconds. ___
6. Again read the selected announcement over the Gai-Tronics. ___

ANNOUNCEMENT

"Attention all personnel...Attention all personnel...A(n) (Classification) has been declared, due to ... (state reason) ... All Emergency Response Organization personnel report to their assigned facility immediately...Personnel in the Radiation Controlled Area proceed to the RCA Access Point...No eating, drinking, smoking or chewing is allowed anywhere in THE OWNER CONTROLLED AREA until further notice...All other personnel:

Optional: NOUE _____ **Continue with normal duties**

Optional: NOUE
Required: Alert
Site Area _____ **Evacuate to the Admin Building using the South Security Access Point**

Optional: Alert
Site Area
Required: General _____ **Evacuate to the North Omaha Power Station using the:**

_____ **PRIMARY Route.** (No release, or release with wind direction ≥57° and <304°)

_____ **ALTERNATE Route.** (wind direction from ≥304° or <57° with known release)

Attachment 6.5 - Classification Announcement

(✓)

NOTE: The Site Director and the Emergency Director should select the information to be announced and direct the Control Room to sound the Emergency Alarm and make the Gai-tronics announcements.

1. Select, from the options below, the information to be announced. ___
2. Notify Security if a plant/site evacuation is planned. ___
3. Sound the Emergency Alarm for approximately 30 seconds. ___
4. Read the selected announcement over the Gai-Tronics. ___
5. Sound the Emergency Alarm for approximately 30 seconds (second time). ___
6. Read the selected announcement over the Gai-Tronics (second time). ___
7. At the EOF, verify that the above steps have been completed using the Operations Liaison Circuit or other communication. ___

ANNOUNCEMENT

"Attention all personnel...Attention all personnel...A(n) __(Classification)__ **has been declared, due to...**(state reason)**...No eating, drinking, smoking or chewing is allowed anywhere in THE OWNER CONTROLLED AREA until further notice"**... (Continue only if a plant/site evacuation is required)

"All Non-Emergency Response personnel must:

Optional: NOUE
Required: Alert
Site Area

_____ **Evacuate to the Administration Building using the South Security Access Point**

Optional: Alert
Site Area
Required: General

_____ **Evacuate to the North Omaha Power Station using the:**

_____ **PRIMARY Route.** (No release, or release with wind direction ≥57° and <304°)

_____ **ALTERNATE Route.** (wind direction from ≥304° or <57° with known release)

Attachment 6.6 - Emergency Termination Guidelines Page 1 of 2

NOTE: Prior to recommending establishment of recovery operations (if necessary) and termination of the Emergency Response Organization, the following conditions should be considered.

1. A Recovery Operations Manager has been designated per EPIP-EOF-19 if extensive recovery actions are needed to return the plant or environs to a pre-accident status.

2. Radiation Protection personnel are/have been monitoring access to any radiologically controlled areas of the plant necessary for recovery operations.

   COMMENTS: _____

   _____

   _____

3. Off-site conditions allow access of personnel and needed support resources to the plant.

   COMMENTS: _____

   _____

   _____

4. Plant status with respect to Technical Specifications has been evaluated by the Command and Control position **OR** Technical Support personnel if ERO was activated.

   COMMENTS: _____

   _____

   _____

5. Emergency termination recommendations have been discussed with the NRC Operations Center.

   COMMENTS: _____

   _____

   _____

6. The states of Nebraska and Iowa and the counties have been notified of the pending termination.

   COMMENTS: _____

   _____

   _____

7. The transition from Emergency to Recovery phase has been discussed with the designated Recovery Operations Manager and an initial recovery operations meeting has been scheduled, if needed.

   COMMENTS: _____

   _____

   _____

Additional Discussions/Comments:

_____

_____

_____

_____

_____

_____

_____

Attachment 6.7 - Relief Checklist **[AR 07071]**

NOTE: Prior to assuming Command and Control of an emergency, Steps 1 through 8 of the following steps must be completed.

		(✓)
1.	Review/Discuss cause of the emergency condition.	___
2.	Review/Discuss current status of the emergency condition and classification level.	___
3.	Review/Discuss current plant status.	___
4.	Review/Discuss each step of current Notification Checklist (Attachments 6.1, 6.2 or 6.3), including any county/state/NRC notifications made and determine any steps **NOT** yet performed.	___
5.	Review and discuss when next FC-1188 should be sent to state/counties.	___
6.	Determine activation status of the ERO and ERF facilities:	

Control Room:	□ ERO Positions Activated		
TSC:	□ Activated	□ In Progress	
OSC:	□ Activated	□ In Progress	
EOF:	□ Activated	□ In Progress	
MRC:	□ Activated	□ In Progress	□ N/A

		___
7.	Determine current status of dose assessment, habitability checks, radiological surveys and other tasks being performed by the Emergency Response Organization.	___
8.	Determine if position being relieved is ready to complete the transfer of Command and Control.	___
9.	WHEN both positions are ready, THEN perform the transfer of Command and Control.	___
10.	Announce your name, and who has Command and Control to the lead personnel in the following facilities, if staffed:	
	Control Room, TSC, OSC, EOF and MRC.	___

11. Sign your name, title and the relief time in the "Relief" space of the Notification Checklist. Initiate the appropriate Notification Checklist if transfer is between facilities. ___

12. Log relief information in the Command and Control position log. ___

Attachment 6.8 - Command and Control Position Responsibilities

The following responsibilities CAN NOT BE DELEGATED by the Command and Control position. The responsibility of their completion rests with the Command and Control position until relieved by another qualified individual or the emergency is terminated. The Command and Control position may assign other personnel to assist in conducting the actions necessary.

1. Overall **COMMAND AND CONTROL** of the Emergency Response Organization.

2. Ensuring the proper **CLASSIFICATION AND DECLARATION** of the emergency situation is made in accordance with EPIP-OSC-1 and is periodically reviewed to determine if the classification should be upgraded, downgraded or terminated.

3. Ensuring all required **NOTIFICATIONS** are made to appropriate state, local and federal officials.

4. Ensuring any appropriate **PROTECTIVE ACTION RECOMMENDATIONS** (PARs) are provided to offsite officials.

5. Authorizing OPPD emergency worker exposure extensions beyond the Federal Radiation Protection Guidance.

6. Authorizing issuance of Potassium Iodide for OPPD emergency workers.

The Command and Control position also has the following responsibilities which may be delegated to other personnel, as necessary.

7. Request for assistance from federal agencies.

8. Authorizing any emergency information to be released to the media or the general public.

9. Coordinating the transfer of emergency information from the Emergency Response Organization (ERO) to other OPPD and outside organizations called upon to assist.

10. Ensuring a timely and complete turnover of information to any qualified relief.

11. Providing information to authorized representatives of the states of Nebraska, and Iowa, and associated local governments.

12. Ensuring plant operations are in compliance with Technical Specifications. If deviations are necessary to protect the public health and safety, they must be approved, as a minimum, by a senior licensed operator, prior to taking the action.

Attachment 6.9 - Classifying and Reporting Events to the Blair Industrial Park Co-Op
Page 1 of 3

NOTE: The purpose of this attachment is to keep members of the Blair Industrial Park Co-Op aware of significant events that have occurred at the Fort Calhoun Station. It is intended that the system be used for notification of emergency situations which have or are anticipated to have visibility or impact beyond the Fort Calhoun station property lines. These situations may include, but are not limited to:

- Any gas or chemical leaks of significant magnitude
- Any radiation leaks of significant magnitude
- Any "news worthy" information (such as major fires, explosions, large medical response, etc.) which could result in news media interviewing neighboring industries
- Any plant evolutions resulting in large noises or having a visual impact which can be heard or seen by the public

1. INITIAL ASSESSMENT

NOTE: FC-EPF-38 is designed to aid you in gathering data prior to contacting members of the Co-Op. Existing FC-1188 and/or SO-R-1 can be used to provide the necessary information.

1.1 If notified of an onsite toxic chemical/hazardous material or radiological release, complete Sections 3, 5, 6 and 7 of FC-EPF-38. If all the information is not known, leave that section blank. DO NOT GIVE UNVERIFIED INFORMATION.

NOTE: Assistance in classification may be obtained from the Shift Chemist.

2. EVENT CLASSIFICATION

2.1 Report the event as classified (NOUE, ALERT, SITE AREA or GENERAL EMERGENCY) in Section 2 of FC-EPF-38.

NOTE: If the involved chemical is not listed, or further information on chemicals is desired refer to SO-G-106, "Hazardous Material Chemical Assessment and Emergency Response Guidelines", the Material Safety Data Sheet, if available, or The North American Emergency Response Guidebook.

NOTE: If the involved chemical is not listed below, refer to the North American Emergency Response Guidebook for guidelines.

2.2 If the involved chemical is one of the following, consider it a SMALL HAZARD:

- Acetylene
- Amerzine
- Chemtreat
- Ethanolamine
- Diesel Fuel
- Hydrazine
- Hydrogen

2.3 Use the guide below to classify the event class. The four codes are further defined in the definitions section of this procedure:

CODE	HAZARD POTENTIAL	CONDITIONS
Blue	Small or large	Situation under control - **NO** offsite threat
Green	Small or large	Situation **NOT** under control - No immediate offsite threat
Yellow	Large	Situation **NOT** under control - Onsite protective actions will be needed
Red	Large	Situation **NOT** under control - Protective actions for neighboring industries and residents needed

NOTE: All members of the Co-Op are staffed 24 hours per day except Kelly Ryan and Agro. MACC may not have staff onsite on some weekends and/or holidays.

NOTE: Alternate emergency numbers and routine day to day contact numbers for all Co-Op members and other vital agencies may be found in the Emergency Phone Book under the Blair Industrial Co-Op tab.

NOTE: All Notifications to the Blair Industrial Park Co-Op should be made through the Control Room if possible.

3. NOTIFICATIONS

3.1 Obtain the instructions marked "Blair Industrial Park Co-Op Notification" from the Emergency Planning Activation Instructions Booklet.

3.2 Direct the Communicator to perform the Blair Industrial Park Co-Op Notifications.

3.3 If event is on-going, update the Blair Industrial Park Co-Op members as conditions warrant.

WP8

Fort Calhoun Station
Unit No. 1

Distribution Authorized

This procedure does not contain any proprietary information, or such information has been censored. This issue may be released to the public document room. Proprietary information includes personnel names, company telephone numbers, and any information, which could impede emergency response.

EPIP-TSC-1

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: ACTIVATION OF THE TECHNICAL SUPPORT CENTER

FC-68 Number: EC 29390

Reason for Change: Clarify instructions on Securing, Placing the TSC HVAC System in the FILTERED MODE, and in the NORMAL MODE. This Change is required due to EC 28898.

Requestor: Mark Reller

Preparer: Mark Reller

ISSUED: 02-04-02 3:00 pm

R22

ACTIVATION OF THE TECHNICAL SUPPORT CENTER

NON-SAFETY RELATED

1. PURPOSE

   1.1 This procedure provides a checklist to provide guidance for activation and deactivation of the Technical Support Center (TSC).

2. REFERENCES/COMMITMENT DOCUMENTS

   None

3. DEFINITIONS

   3.1 Activated - minimum staffing and basic setup requirements have been attained to allow the TSC to provide limited support to the Control Room.

   3.2 Augmented - A facility is augmented when all augmenting and minimum staffing positions are filled.

4. PREREQUISITES

   None

5. PROCEDURE

NOTE: The Site Director or TSC Director is responsible for completion of this procedure. They may assign this task to other members of the TSC staff.

   5.1 Upon reporting to the TSC, activate the TSC using Attachment 6.1.

   5.2 Upon event termination, deactivate the TSC per Attachment 6.2.

6. ATTACHMENTS

   6.1 Checklist for Activation of the TSC

   6.2 Checklist for Deactivation of the TSC

   6.3 Activation/Deactivation of the TSC Air and Area Radiation Monitors

   6.4 Operation of the TSC HVAC System

Attachment 6.1 - Checklist For Activation of the TSC Page 1 of 2

NOTE: It is the goal of Omaha Public Power District (OPPD) to activate the TSC within one hour following declaration of an Alert or higher classification. In the event of adverse weather and/or other conditions that may limit or slow response, either manmade or natural, it is understood that staffing time may exceed this goal.

	(✓)	INIT/TIME
1. Contact the Control Room to determine if there is a toxic gas threat in the vicinity of Fort Calhoun Station.		
1.1 If **YES**, secure the TSC HVAC system per Attachment 6.4, Step 3.	___	
1.2 If **NO**, place the TSC HVAC System in the FILTERED MODE per Attachment 6.4, Step 1.	___	____/____
2. Verify the following minimum staffing positions are available.		
• Site Director	___	
• Protective Measures Coordinator	___	
• TSC COP Communicator	___	
• Reactor Safety Coordinator	___	____/____
3. Ensure that the volume buttons on both Gai-tronics are turned up.		____/____
4. Using the Gai-Tronics, announce the following message:		
4.1 "Attention all personnel....Attention all personnel....This is (Insert name and position). All personnel deposit their accountability badges in the proper accountability box near their facility.	___	
4.2 Repeat the message above.	___	____/____
5. Open all TSC room doors.		____/____
6. Post "NO EATING/DRINKING/SMOKING OR CHEWING" signs in the TSC Room 115 and near the entrance door.		____/____
7. In Room 118, unlock the aperture card file using the key from the key box, and turn on the aperture card reader/printer.		____/____
8. Synchronize TSC clocks with ERF Computer.		____/____

Attachment 6.1 (continued)

	(✓)	INIT/TIME
9. When Steps 2 through 8 are complete, make the following announcement on the TSC PA system: This is __(insert name and position)__ the TSC is activated. Command and Control for the emergency is in the __name of facility__ at this time. No eating, drinking, smoking or chewing is allowed in the TSC until further notice.		____/____
10. Notify the Control Room, OSC and EOF that the TSC is activated.		____/____
11. Verify radiological habitability per EPIP-EOF-11.		____/____
12. Initiate operation of the TSC Air Monitor and Area Radiation Monitor per Attachment 6.3.		____/____
13. Within one hour of the initial emergency declaration, verify the following augmenting staff are present:		
• Field Teams (2 Technicians, 2 Drivers)	___	
• I&C/Electrical Systems Engineer	___	
• Operations Liaison	___	
• Primary System Engineer	___	
14. After one hour determine TSC positions are filled.	___	
14.1 If any positions are not filled, based on the nature of the emergency determine if that position is required.	___	
14.2 Request assistance from the TSC staff in contacting additional staff.	___	____/____

Attachment 6.2 - Checklist for Deactivation of the TSC

Upon termination of emergency activities, the following actions should be completed to restore the TSC:

	INIT/TIME
• Place emergency kits in the Emergency Gear Locker.	____/____
• Properly restore all computer systems to their standby mode.	____/____
• Turn off the writeboard system.	____/____
• Deactivate the TSC Air Monitor and Area Radiation Monitor per Attachment 6.3.	____/____
• Place the TSC HVAC System in the NORMAL MODE per Attachment 6.4, Step 2.	____/____
• Remove all posted signs within the TSC.	____/____
• Turn in all logs, paperwork, procedures, etc. to the Administrative Logistics Coordinator.	____/____
• Turn off the aperture card reader/printer, and relock the aperture card file.	____/____
• Restock all Emergency Kits	____/____
• Relock all room doors.	____/____

Attachment 6.3 - Activation/Deactivation of the TSC Air and Area Radiation Monitors

		(✓)	INIT/TIME
1.	To activate the Air and Area Radiation Monitors, perform the following:		
1.1	Enter Room 109 (the ERF computer system room).	___	
1.2	Plug in and turn on the Area Radiation Monitor as necessary.	___	
1.3	Plug in and turn on the PING Monitor as necessary.	___	
1.4	Allow the PING to stabilize for several minutes, clearing the initial alarms as necessary.	___	
1.5	Check both units on a routine basis during the emergency to ensure habitability is being maintained.	___	
1.6	If either monitor alarms at any time during startup or operation, perform the following:		
1.6.1	Reset the alarm by pressing the reset/acknowledge button.	___	
1.6.2	If alarm resounds, read the affected meter and call a Radiation Protection Technician for further instructions.	___	____/____
2.	To deactivate the Air and Area Radiation Monitors, perform the following:		
2.1	Obtain permission from the Radiological Operations Coordinator to secure this equipment.	___	
2.2	If permission is granted, unplug both units.	___	
2.3	If permission is not granted, leave equipment operating and inform the Control Room.	___	____/____

Attachment 6.4 - Operation of the TSC HVAC System

(✓) INIT/TIME

1. Placing the TSC HVAC in the FILTERED MODE.

   1.1 On panel AI-200A (in TSC Room 109) ensure the Air Handler, VA-107 is ON as indicated by the red light above the VA-107, TSC Ventilation Unit Start/Stop Pushbuttons. If VA-107 is not ON, start VA-107 with the START push button.

   1.2 Ensure the Charcoal Filter Fan, VA-109, Charcoal Filter Fan Selector Switch, is in AUTO.

   1.3 Place the TSC Ventilation Charcoal Filtered Air Toggle Switch is in the ON position. _____/_____

2. Placing the TSC HVAC in the NORMAL MODE.

   2.1 On panel AI-200A (in TSC Room 109), place the TSC Ventilation Charcoal Filtered Air Toggle Switch in OFF.

   2.2 Verify VA-109, Charcoal Filter Fan Selector Switch is in AUTO and VA-107 in ON as indicated by red light above VA-107, TSC Ventilation Unit Start/Stop Pushbuttons. _____/_____

3. Securing the TSC HVAC System.

   3.1 On panel AI-200A (in TSC Room 109), ensure or place the TSC Ventilation Charcoal Filtered Air Toggle Switch in the OFF position.

   3.2 Place the Air Handler, VA-107 in OFF by pushing the VA-107, TSC Ventilation Unit Stop pushbutton AND verify the red light above the VA-107, TSC Ventilation Unit Start/Stop pushbuttons is off. _____/_____

FORM EP-1
Rev. 6 (04/29/99)

OMAHA PUBLIC POWER DISTRICT

Confirmation of Transmittal for
Emergency Planning Documents/Information

☐ Radiological Emergency Response Plan (RERP)
☒ Emergency Plan Implementing Procedures (EPIP)
☐ Emergency Planning Forms (EPF)
☐ Emergency Planning Department Manual (EPDM)
☐ Other Emergency Planning Document(s)/ Information

Transmitted to:

Name: Document Control Desk Copy No: 165 Date: _____
Plant Support Branch Secretary Copy No: 154
Plant Support Branch Secretary Copy No: 155

The following document(s) / information is forwarded for your manual:

REMOVE SECTION	INSERT SECTION
EPIP Index page 1 of 2 issued 12/07/01	EPIP Index page 1 of 2 issued 01/23/02
EPIP-EOF-6 R31 issued 07/02/01	EPIP-EOF-6 R32 issued 01/23/02

Summary of Changes:

EPIP-EOF-6 was revised to clarify instructions on how to use the Imminent Release function in EAGLE and a note was added instructing the user to use a stand alone fax when the network is slow or unavailable.

Supervisor - Emergency Planning

I hereby acknowledge receipt of the above documents/information and have included them in my assigned manuals.
Signature: _____ **Date:** _____

Please sign above and return by **03/22/02** to:

Karma Boone
Fort Calhoun Station, FC-2-1
Omaha Public Power District
444 South 16th Street Mall
Omaha, NE 68102-2247

NOTE: If the document(s)/information contained in this transmittal is no longer requested or needed by the recipient, or has been transferred to another individuals, please fill out the information below.

☐ Document(s)/Information No Longer Requested/Needed
☐ Document(s)/Information Transferred to:

Name: _____ Mailing Address: _____
_____

EMERGENCY PLAN IMPLEMENTING PROCEDURE INDEX

EPIP-OSC-1	Emergency Classification	R34 09-14-00
EPIP-OSC-2	Command and Control Position Actions/Notifications	R39 05-17-01
EPIP-OSC-9	Emergency Team Briefings	R7 12-09-99
EPIP-OSC-15	Communicator Actions	R22 10-24-00
EPIP-OSC-21	Activation of the Operations Support Center	R11 11-27-01
EPIP-TSC-1	Activation of the Technical Support Center	R21 08-24-00a
EPIP-TSC-2	Catastrophic Flooding Preparations DELETED (05-09-95) **REINSTATED**	(R0 03-22-95) R2 02-06-96
EPIP-TSC-8	Core Damage Assessment	R14 01-19-01
EPIP-EOF-1	Activation of the Emergency Operations Facility	R12 08-24-00a
EPIP-EOF-3	Offsite Monitoring	R17 12-07-01
EPIP-EOF-6	Dose Assessment	R32 01-23-02
EPIP-EOF-7	Protective Action Guidelines	R13 10-31-00b
EPIP-EOF-10	Warehouse Personnel Decontamination Station Operation	R10 01-13-00a
EPIP-EOF-11	Dosimetry Records, Exposure Extensions and Habitability	R18 09-18-97b
EPIP-EOF-19	Recovery Actions	R7 09-30-98
EPIP-EOF-21	Potassium Iodide Issuance	R4 11-07-00
EPIP-EOF-23	Emergency Response Message System	R5 10-12-99
EPIP-EOF-24	EOF Backup Alert Notification System Activation	R3 09-09-99
EPIP-RR-11	Technical Support Center Director Actions	R14 02-29-00
EPIP-RR-13	Reactor Safety Coordinator Actions	R14 12-09-99

WP8

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Fort Calhoun Station
Unit No. 1

EPIP-EOF-6

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: DOSE ASSESSMENT

FC-68 Number: EC 28905

Reason for Change: Add note telling when to use fax. Clarify instructions on how to use imminent release. (CR 200103341)

Requestor: M. Reller

Preparer: M. Reller

DOSE ASSESSMENT

NON-SAFETY RELATED

1. PURPOSE

1.1 This procedure provides instructions for performing dose assessment for Ventilation Stack releases, Main Steam Line/Condenser Off-Gas releases, Containment leakage and Radwaste Building releases. It also provides instruction for estimating unmonitored release rates, and performing liquid release assessment.

2. REFERENCES/COMMITMENT DOCUMENTS

2.1 EPIP-EOF-7, Protective Action Guidelines

2.2 OI-ERFCS-1, Operation of the Emergency Response Facilities Computer System

2.3 CH-SMP-PA-0005, Monitoring of Gaseous Effluent Releases Via the Auxiliary Building Ventilation Duct Pathway

2.4 Technical Data Book TDB-IV.8, Area Monitor Setpoints

2.5 User's Guide for EAGLE 5.00

2.6 Engineering Analysis EA-FC-90-038, Manual Dose Assessment

2.7 Engineering Analysis EA-FC-90-105, Ingestion Pathway

2.8 Engineering Analysis EA-FC-90-035, EAGLE Radiological Parameters

2.9 Engineering Analysis EA-FC-93-066, EAGLE 4.0 Dose Calculation Methodology

2.10 Calculation FC-06179, TEDE and CDE conversion factors for offsite dose calculation

2.11 Commitments (other than Ongoing)

- AR 10029, IER-89-24
- AR 13302, IER-92-20
- AR 17061, LIC-95-0049/LIC-95-0230

2.12 Protective Measure Basis Document, CHP-00-038, September 28, 2000

3. DEFINITIONS

3.1 DELTA T (ΔT) TEMPERATURE - the temperature difference between 10 and 60 meters, in units of centigrade. The value displayed on the ERFCS equates to a 100ΔT[(T @ 60m - T @ 10m) x 2].

3.2 DURATION OF RELEASE - the time in hours the release is expected to continue.

3.3 DOSE - the amount of ionizing radiation that results from an amount of energy being absorbed in the human body, in units of Rem.

3.4 DOSE RATE - Dose per unit time, in units of Rem/hour.

3.5 ERFCS - Emergency Response Facility Computer System.

3.6 IMMINENT RELEASE - An impending release of the radioactive gas in Containment.

3.7 CDE - Committed Dose Equivalent.

3.8 TEDE - Total Effective Dose Equivalent.

3.9 COMMAND AND CONTROL POSITION: The position that is currently in charge of the emergency response, either the Shift Supervisor, Control Room Coordinator, Site Director or Emergency Director.

3.10 RELEASE RATE (Q) - the emission rate of the effluent in units of Curies per second from the release point.

4. PREREQUISITES

4.1 A radioactive release is suspected, imminent, or known to be in progress.

5. PROCEDURE

NOTE: If on-site meteorological data is not available, contact the National Weather Service (number in the Emergency Phone Book), and request wind speed and direction. For night time (sunset to sunrise) with no precipitation, use a ΔT of +2.0 and a stability class F. For all other conditions, use a ΔT of -1.0 and a stability class D.

5.1 To perform dose assessments in the Control Room, use Attachment 6.1.

5.2 To perform dose assessments in the TSC, use Attachment 6.2.

5.3 To perform dose assessments in the EOF, use Attachment 6.3.

5.4 When needed, perform dose assessments and updates to the states at least every 60 minutes. It is the goal of the Fort Calhoun Station to attempt to provide assessments and updates at 15 minute intervals. (AR 13302)

5.5 Retain all documentation (logs, assessments, etc.) generated or used during the emergency. At the termination, deliver all documentation to the TSC Administrative Logistics Coordinator in the TSC, or the EOF Administrative Logistics Manager in the EOF.

6. ATTACHMENTS

6.1 Dose Assessment in the Control Room

6.2 Dose Assessment in the TSC

6.3 Dose Assessment in the EOF

6.4 Computerized Dose Assessment

6.5 Unmonitored Release Assessments

Attachment 6.1 - Dose Assessment In The Control Room Page 1 of 4

1. Sign in on the Accountability Roster and put on the Personnel Identification Badge.

2. Using information from the Control Room as needed and AI-33A, B and C or ERFCS pages 197, 360 and 361 evaluate and determine the release pathways for dose assessment as follows:

   NOTE: The sample Control Module for RM-052 must be in the VENT position (monitoring the Auxiliary Building Vent Stack) in order to be used for dose assessment.

   NOTE: RM-062/063 are the preferred process monitors to be used for dose assessment on the Auxiliary Building Vent Stack. RM-062 is normally in-service and RM-063 is normally in Standby. When RM-062 count rate exceeds 5.0 E+06 cpm or if RM-063 exceeds 5.0 E-3 µC/cc; sample flow will automatically shift from RM-062 to RM-063 and the alarm "RM-063 AUX BLDG VENT STACK IN SERVICE" will annunciate on AI-33C. When RM-063 radiation level drops below 5.0 E-3 µC/cc, sample flow will shift to RM-062 and RM-063 will shift to Standby.

   2.1 Evaluate the Auxiliary Building Vent Stack release pathway using RM-052, RM-062 and RM-063.

      2.1.1 If RM-052 or RM-062 is in High Alarm, determine the source of the release to the Auxiliary Building Vent Stack.

         - If the source of the release can be determined to be only from Condenser Off-gas (i.e. Off-gas is aligned to Auxiliary Building Vent Stack and there are no other release sources to the Auxiliary Building Vent Stack), then use an Iodine/Noble Gas Ratio of 0.003 for the Auxiliary Building Vent Stack release.

         - Otherwise, use the default Iodine/Noble Gas Ratio of 0.02.

   2.2 Evaluate the Condenser/Main Steam release pathway using RM-057, RM-064 and whether or not a primary to secondary leak has been confirmed.

      2.2.1 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed, request that RM-064 be placed in service on the affected Main Steam Line.

      2.2.2 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed and if Condenser Off-gas is being vented directly to the atmosphere via the Turbine Building Roof, request that Condenser Off-gas be aligned to the Auxiliary Building Vent Stack.

2.2.3 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed and Condenser Off-gas is being vented directly to the atmosphere via the Turbine Building Roof, perform dose assessment using Condenser Off-gas a release pathway, a flow rate of 340 scfm, and use an Iodine/Noble Gas Ratio of 0.003.

2.2.4 If a primary to secondary leak is confirmed and RM-057 is not operable or is over ranged, and Condenser Off-gas is not aligned to the Auxiliary Building Vent Stack, this is an unmonitored release.

2.2.5 If there is a confirmed primary to secondary leak, and FW-10 is receiving steam from the affected Steam Generator, or the atmospheric Steam Dump Valve HCV-1040 is OPEN or a Steam Safety is lifting on the affected side, and RM-064 count rate is above the back ground count rate as listed in TDB-IV.7, use an Iodine/Noble Gas Ratio of 0.003.

2.2.6 If there is a confirmed primary to secondary leak, and FW-10 is receiving steam from the affected Steam Generator, or the atmospheric Steam Dump Valve HCV-1040 is OPEN or a Steam Safety is lifting on the affected side, and RM-064 count rate is less than or equal to the background count rate as listed in TDB-IV.7, this is unmonitored release.

2.3 Evaluate the Containment Leakage release pathway using Containment Area Monitors.

NOTE: If containment leakage is suspected to be greater than designed Containment leakage of 1.5 scfm, and the leakage is from the Containment to the stack or from the Containment to Controlled Areas of the Auxiliary Building to the Auxiliary Building Vent Stack, consideration may be given not to count the release twice if dose assessment will be performed from the Auxiliary Building Vent Stack.

2.3.1 If Containment Area Monitors RM-070 through RM-075 are in High Alarm or RM-091A and B read 1.0 R/hr or higher, perform dose assessment using Containment leakage as a release pathway.

2.3.2 **IF** any area monitors indicate > 1000 times the background listed in TDB-IV.8, **THEN** inform the Command and Control position for classification information.

2.4 Evaluate the Radwaste Building Stack as a release pathway using RM-043

2.4.1 If RM-043 is in High Alarm, perform dose assessment using the Radiological Waste Building Vent Stack as a release pathway.

2.5 Evaluate the liquid release pathways as follows:

2.5.1 If RM-055, Overboard Discharge Monitor is reading greater than the High Alarm Setpoint as listed in TDB-IV.7 and the overboard discharge flow is not isolated, then a liquid release assessment must be performed.

2.5.2 If either RM-054A or RM-054B Steam Generator Blowdown Monitors are reading greater than the High Alarm Setpoint as listed in TDB-IV.7 and blowdown flow is not isolated from the Steam Generator(s) with a primary to secondary leak, then a liquid release assessment must be performed.

2.6 Determine if there are any potentially unmonitored releases.

3. Perform dose assessment for monitored release pathways using Attachment 6.4 and for unmonitored release pathways per Attachment 6.5.

4. Review/Distribution

NOTE: The PAR information generated by EAGLE is for OPPD decision maker's information only. Actual PARs are determined by the Command and Control position. The PAR Information Worksheet should be one of the tools used for guidance in determining PARs.

4.1 If Command and Control is in the Control Room

4.1.1 Have the Command and Control position review the PAR Information Worksheet and the Update Report to Offsite Authorities.

NOTE: If a dose assessment results in a change in classification or a PAR change, ensure that the states are notified by the CR Communicator using an approved Emergency Notification form (FC-1188) prior to faxing the Update Report to Offsite Authorities.

NOTE: If the Network is down or faxing is slow consider using the stand-alone fax machine.

4.1.2 If the Command and Control position approves the assessment:

- Click the "Fax/Distribute" button at the bottom of the Release Information Screen
- Select the proper distribution list(s)
- Click "OK"

4.2 If Command and Control is in the TSC:

4.2.1 Fax unsigned PAR Information Worksheet and Update Report to State and County Authorities to the TSC.

4.2.2 Inform the TSC Protective Measures Coordinator of the transmittal.

4.2.3 Record transmittal time.

Attachment 6.2 - Dose Assessment In The Technical Support Center Page 1 of 3

NOTE: Dose assessment will only be performed in the TSC in the event that the EAGLE equipment in the Control Room is unavailable or inoperable. The TSC EAGLE equipment may also be used as a backup to the equipment located at the EOF.

1. Sign in on the Accountability Roster.

2. Inform the Protective Measures Coordinator that you will be performing dose assessment in the TSC.

3. Using information from the Control Room as needed and AI-33A, B and C or ERFCS pages 197, 360 and 361 evaluate and determine the release pathways for dose assessment as follows:

   NOTE: The sample Control Module for RM-052 must be in the VENT position (monitoring the Auxiliary Building Vent Stack) in order to be used for dose assessment.

   NOTE: RM-062/063 are the preferred process monitors to be used for dose assessment on the Auxiliary Building Vent Stack. RM-062 is normally in-service and RM-063 is normally in Standby. When RM-062 count rate exceeds 5.0 E+06 cpm or if RM-063 exceeds 5.0 E-3 µC/cc; sample flow will automatically shift from RM-062 to RM-063 and the alarm "RM-063 AUX BLDG VENT STACK IN SERVICE" will annunciate on AI-33C. When RM-063 radiation level drops below 5.0 E-3 µC/cc, sample flow will shift to Standby.

   3.1 Evaluate the Auxiliary Building Vent Stack release pathway using RM-052, RM-062 and RM-063.

      3.1.1 If RM-052 or RM-062 is in High Alarm, determine the source of the release to the Auxiliary Building Vent Stack.

         - **IF** the source of the release can be determined to be only from Condenser Off-gas (i.e. Off-gas is aligned to Auxiliary Building Vent Stack and there are no other release sources to the Auxiliary Building Vent Stack), **THEN** use an Iodine/Noble Gas Ratio of 0.003 for the Auxiliary Building Vent Stack release.

         - Otherwise, use the default Iodine/Noble Gas Ratio of 0.02.

   3.2 Evaluate the Condenser/Main Steam release pathway using RM-057, RM-064 and whether or not a primary to secondary leak has been confirmed.

      3.2.1 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed, request that RM-064 be placed in service on the affected Main Steam Line.

3.2.2 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed and if Condenser Off-gas is being vented directly to the atmosphere via the Turbine Building Roof, request that Condenser Off-gas be aligned to the Auxiliary Building Vent Stack.

3.2.3 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed and Condenser Off-gas is being vented directly to the atmosphere via the Turbine Building Roof, perform dose assessment using Condenser Off-gas a release pathway, a flow rate of 340 scfm, and use an Iodine/Noble Gas Ratio of 0.003.

3.2.4 If a primary to secondary leak is confirmed and RM-057 is not operable or is over ranged, and Condenser Off-gas is not aligned to the Auxiliary Building Vent Stack, this is an unmonitored release.

3.2.5 If there is a confirmed primary to secondary leak, and FW-10 is receiving steam from the affected Steam Generator, or the atmospheric Steam Dump Valve HCV-1040 is OPEN or a Steam Safety is lifting on the affected side, and RM-064 count rate is above the back ground count rate as listed in TDB-IV.7, use an Iodine/Noble Gas Ratio of 0.003.

3.2.6 If there is a confirmed primary to secondary leak, and FW-10 is receiving steam from the affected Steam Generator, or the atmospheric Steam Dump Valve HCV-1040 is OPEN or a Steam Safety is lifting on the affected side, and RM-064 count rate is less than or equal to the background count rate as listed in TDB-IV.7, this is unmonitored release.

3.3 Evaluate the Containment Leakage release pathway using Containment Area Monitors

NOTE: If containment leakage is suspected to be greater than designed Containment leakage of 1.5 scfm, and the leakage is from the Containment to the stack or from the Containment to Controlled Areas of the Auxiliary Building to the Auxiliary Building Vent Stack, consideration may be given not to count the release twice if dose assessment will be performed from the Auxiliary Building Vent Stack.

3.3.1 If Containment Area Monitors RM-070 through RM-075 are in High Alarm or RM-091A and B read 1.0 R/hr or higher, perform dose assessment using Containment leakage as a release pathway.

3.3.2 **IF** any area monitors indicate > 1000 times the background listed in TDB-IV.8, **THEN** inform the Command and Control position for classification information.

3.4 Evaluate the Radwaste Building Stack as a release pathway using RM-043

3.4.1 If RM-043 is in High Alarm, perform dose assessment using the Radiological Waste Building Vent Stack as a release pathway.

3.5 Evaluate the liquid release pathways as follows:

3.5.1 IF RM-055, Overboard Discharge Monitor is reading greater than the High Alarm Setpoint as listed in TDB-IV.7 and the overboard discharge flow is not isolated, then a liquid release assessment must be performed.

3.5.2 If either RM-054A or RM-054B Steam Generator Blowdown Monitors are reading greater than the High Alarm Setpoint as listed in TDB-IV.7 and blowdown flow is not isolated from the Steam Generator(s) with a primary to secondary leak, then a liquid release assessment must be performed.

3.6 Determine if there are any potentially unmonitored releases.

4. Perform dose assessment for monitored release pathways using Attachment 6.4 and for unmonitored release pathways per Attachment 6.5.

5. Review

NOTE: The PAR information generated by EAGLE is for OPPD decision maker's information only. Actual PARs are determined by the Command and Control position. The PAR Information Worksheet should be one of the tools used for guidance in determining PARs.

5.1 Obtain a printout of the PAR Information Worksheet and the Update Report to Offsite Authorities.

5.2 Forward printouts to the Protective Measures Coordinator.

6. Provide detailed briefing to oncoming shift relief of emergency conditions and dose assessment status.

Attachment 6.3 - Dose Assessment in the Emergency Operation Facility

1. **IF** dose assessments are being performed in the Control Room, **THEN** contact the technician in the Control Room performing dose assessment and review all previous assessments using the fax copies.

2. **IF** dose assessments are being performed in the TSC, **THEN** contact the technician performing dose assessment in the TSC and review all previous assessments using the fax copies.

3. Standby to transfer dose assessment from the Control Room (or TSC) to the EOF, as directed by the Protective Measures Manager.

4. When directed to take over dose assessment, inform the technician in the Control Room (or TSC) of your actions.

5. Using information from the Control Room as needed and AI-33A, B and C or ERFCS pages 197, 360 and 361 evaluate and determine the release pathways for dose assessment as follows:

   NOTE: The sample Control Module for RM-052 must be in the VENT position (monitoring the Auxiliary Building Vent Stack) in order to be used for dose assessment.

   NOTE: RM-062/063 are the preferred process monitors to be used for dose assessment on the Auxiliary Building Vent Stack. RM-062 is normally in-service and RM-063 is normally in Standby. When RM-062 count rate exceeds 5.0 E+06 cpm or if RM-063 exceeds 5.0 E-3 µC/cc; sample flow will automatically shift from RM-062 to RM-063 and the alarm "RM-063 AUX BLDG VENT STACK IN SERVICE" will annunciate on AI-33C. When RM-063 radiation level drops below 5.0 E-3 µC/cc, sample flow will shift to RM-062 and RM-063 will shift to Standby.

   5.1 Evaluate the Auxiliary Building Vent Stack release pathway using RM-052, RM-062 and RM-063.

      5.1.1 If RM-052 or RM-062 is in High Alarm, determine the source of the release to the Auxiliary Building Vent Stack.

      - **IF** the source of the release can be determined to be only from Condenser Off-gas (i.e. Off-gas is aligned to Auxiliary Building Vent Stack and there are no other release sources to the Auxiliary Building Vent Stack), **THEN** use an Iodine/Noble Gas Ratio of 0.003 for the Auxiliary Building Vent Stack release.

      - Otherwise, use the default Iodine/Noble Gas Ratio of 0.02.

5.2 Evaluate the Condenser/Main Steam release pathway using RM-057, RM-064 and whether or not a primary to secondary leak has been confirmed.

5.2.1 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed, request that RM-064 be placed in service on the affected Main Steam Line.

5.2.2 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed and if Condenser Off-gas is being vented directly to the atmosphere via the Turbine Building Roof, request that Condenser Off-gas be aligned to the Auxiliary Building Vent Stack.

5.2.3 If RM-057 is in High Alarm or if a primary to secondary leak is confirmed and Condenser Off-gas is being vented directly to the atmosphere via the Turbine Building Roof, perform dose assessment using Condenser Off-gas a release pathway, a flow rate of 340 scfm, and use an Iodine/Noble Gas Ratio of 0.003.

5.2.4 If a primary to secondary leak is confirmed and RM-057 is not operable or is over ranged, and Condenser Off-gas is not aligned to the Auxiliary Building Vent Stack, this is an unmonitored release.

5.2.5 If there is a confirmed primary to secondary leak, and FW-10 is receiving steam from the affected Steam Generator, or the atmospheric Steam Dump Valve HCV-1040 is OPEN or a Steam Safety is lifting on the affected side, and RM-064 count rate is above the back ground count rate as listed in TDB-IV.7, use an Iodine/Noble Gas Ratio of 0.003.

5.2.6 If there is a confirmed primary to secondary leak, and FW-10 is receiving steam from the affected Steam Generator, or the atmospheric Steam Dump Valve HCV-1040 is OPEN or a Steam Safety is lifting on the affected side, and RM-064 count rate is less than or equal to the background count rate as listed in TDB-IV.7, this is unmonitored release.

5.3 Evaluate the Containment Leakage release pathway using Containment Area Monitors

NOTE: If containment leakage is suspected to be greater than designed Containment leakage of 1.5 scfm, and the leakage is from the Containment to the stack or from the Containment to Controlled Areas of the Auxiliary Building to the Auxiliary Building Vent Stack, consideration may be given not to count the release twice if dose assessment will be performed from the Auxiliary Building Vent Stack.

5.3.1 If Containment Area Monitors RM-070 through RM-075 are in High Alarm or RM-091A and B read 1.0 R/hr or higher, perform dose assessment using Containment leakage as a release pathway.

5.3.2 **IF** any area monitors indicate > 1000 times the background listed in TDB-IV.8, **THEN** inform the Command and Control position for classification information.

5.4 Evaluate the Radwaste Building Stack as a release pathway using RM-043

5.4.1 If RM-043 is in High Alarm, perform dose assessment using the Radiological Waste Building Vent Stack as a release pathway.

5.5 Evaluate the liquid release pathways as follows:

5.5.1 If RM-055, Overboard Discharge Monitor is reading greater than the High Alarm Setpoint as listed in TDB-IV.7 and the overboard discharge flow is not isolated, then a liquid release assessment must be performed.

5.5.2 If either RM-054A or RM-054B Steam Generator Blowdown Monitors are reading greater than the High Alarm Setpoint as listed in TDB-IV.7 and blowdown flow is not isolated from the Steam Generator(s) with a primary to secondary leak, then a liquid release assessment must be performed.

5.6 Determine if there are any potentially unmonitored releases.

6. Perform dose assessment for monitored release pathways using Attachment 6.4 and for unmonitored release pathways per Attachment 6.5.

7. Review

   NOTE: The PAR information generated by EAGLE is for OPPD decision maker's information only. Actual PARs are determined by the Command and Control position. The PAR Information Worksheet should be one of the tools used for guidance in determining PARs.

   7.1 Obtain a printout of the PAR Information Worksheet and the Update report to Offsite Authorities.

   7.2 Forward printouts to the Dose Assessment Coordinator.

8. Provide detailed briefing to oncoming shift relief of emergency conditions and dose assessment status.

1. Logging on to EAGLE

1.1 Is terminal on, with EAGLE Main Menu page showing?

1.1.1 YES Select operational mode (emergency, drill or test), proceed to Step 1.2.

NO Re-boot the system, user name for each terminal is on the monitor, password for all machines is "eagle".

NOTE: If another terminal has network "Control" and is performing dose assessment, Coordinate the network synchronization accordingly. At the EOF work with the EOF Dose Assessment Coordinator to insure a smooth transfer of dose assessment responsibilities.

1.2 Verifying network status and control.

1.2.1 Click "View Network Status" a window will open showing the status of each EAGLE network terminal.

1.2.2 To take control of the network (with someone at other PC, preferred method):

- Have person in control click the "Release Control" button
- Click the "Take Control"
- Click "Exit"

1.2.3 To take control when no one is at the other PC:

- Click "Override Control"
- Click "Refresh"
- Click "Exit"

1.2.4 The blue lettering at the top of the EAGLE Main Menu screen should say "Network Mode/Control".

CAUTION

IF process monitor reading increases by 50% while performing an assessment, or the Command and Control position requests an immediate assessment, **THEN** complete the current assessment and immediately start another. **[AR 10029]**

2. Performing Dose Assessment

NOTE: While EAGLE does have graphic capabilities, typically this function will only be performed at the EOF.

2.1 Click "Atmospheric Diffusion and Dose Calculations" button.

2.2 From the Change Plume Segment Number screen:

NOTE: It is possible to redo a plume by selecting that number at this point. All data for that plume and other sequential plumes will be lost.

2.2.1 Enter "1" to start new plume series or the next sequential number to continue the current series.

2.2.2 Click "OK".

2.3 From the EAGLE Screen select:

2.3.1 Click "Control Options" to select:

- Run Mode (Normal Dose Projection, is the default)
- Release Duration (4 hours is the default)

2.3.2 Click "OK".

2.3.3 If desired, click "Current Segment Time and Date" to gain another opportunity to change the plume number.

NOTE: There are four release points listed at this point. To simplify this procedure, guidance will only be given for the Auxiliary Building Stack. The method for doing other release paths is similar. Reference the EAGLE Help menu or the EAGLE 5.0 User Manual if you need assistance with these pathways.

NOTE: For Condenser Off-gas releases, use a condenser ejector flow-rate of 340 cfm.

NOTE: For Condenser Main Steam releases, use an Iodine/Noble Gas Ratio of 0.003.

2.3.4 Click "Aux Bldg Stk" or appropriate button to enter release data:

- Select the appropriate option (the method described here will use radiation monitor data)
- Select the appropriate Rad Monitor
- Enter the current rad monitor value, click accept
- Enter the current Auxiliary Building Vent Stack flow (default is 72500), click "OK"
- Click "Change Iodine/Noble Gas Ratio", if needed, enter desired value (default is 2 e-2), click "Accept;
- If properly entered click "OK"
- Click "Return To Dose Calcs"

2.3.5 Repeat Step 2.3.4 for each release path.

2.3.6 Click "Change Met Parameters"

NOTE: For early dose assessments use the defaults for Atmospheric Mixing Conditions and Atmospheric Stability Class Method. The Protective Measures Group in the EOF should review weather conditions and adjust assessments accordingly once the EOF has assumed command and control and dose assessment.

- Select the appropriate Atmospheric Mixing Condition (Unlimited Mixing Conditions is Default), enter the Mixing Height in meters.

- Select the appropriate Atmospheric Stability Class (Delta T Method is default). If you chose other than the default enter Sigma Theta in degrees Celsius.

NOTE: Use the most positive Delta-T and the slowest wind speed.

- Enter wind speed and direction, the ambient temperature and the appropriate Delta-T in the spaces provided.

- Once data is properly entered, click "OK"

2.4 Calculation

2.4.1 From the EAGLE screen click "Calculate". A red box will appear confirming the plume number which is being calculated.

NOTE: When EAGLE is done calculating the "Output Menu" box will be operational.

2.5 Viewing Calculated Results

2.5.1 Click "Output Menu"

2.5.2 From the "EAGLE Output Menu" screen click on "Release/Dose Assessment Information"

- The "Data Input" sub-page will appear allowing you to verify that the correct data was used for calculations (Click on the "Recommendations" sub-page to verify rad monitor inputs and flows)
- Click on the "Projections" sub-page to get EAGLE Calculated results in TEDE and CDE at the Site Boundary, 2 miles, 5 miles and 10 miles. (any "Projected Integrated Dose (REM)) that require protective actions per EPIP-EOF-7 will be highlighted in red)
- Click on the "Recommendation" sub-page to view EAGLE recommended Protective Action Recommendations (PARs)

2.6 Printing

2.6.1 Click "Distribute"

2.6.2 Click "Print" after it is highlighted

NOTE: A window will open and ask a "Dose Assessment Report", a PARs Worksheet" or "Both".

2.6.3 Click the option you prefer (normally both).

2.6.4 Go to the proper attachment in this procedure for your facility for distribution and approval guidance.

2.7 Follow-up Actions

2.7.1 To go to the next plume segment

- Click "Return to Output Menu"
- From the "EAGLE Output Menu" screen click "Go To Next Plume Segment"
- Click "Run Next Segment"
- Go to Step 2.3 and follow guidance as needed to change inputs, as conditions require

3. Imminent Release Assessment

3.1 Entering data

3.1.1 From the main menu click "Atmospheric Diffusion Assessment and Dose Calculations".

3.1.2 At the Plume Segment Number screen:

- Enter the appropriate plume number
- Click "OK"

3.1.3 At the EAGLE Screen select Control Options:

- Select "Imminent Release Option"
- Click "OK"

3.1.4 At the Containment Imminent Release Screen, select:

- Change Release Time; to change the time until release
- Change Containment Flow; to change Containment Pressure
- Change Radiological Data; to enter data from rad monitors or isotopes
- Hours after accident
- Click "OK"

3.1.5 Click "Calculate Initial Release Rates", to get "Projected Release Rates" in Ci/sec.

3.1.6 Click Perform Straight-line Gaussian Projection:

- At the prompt select the release duration, click "OK"
- Enter the meteorological information, click "OK"
- The Plume Centerline Values Based on Straight-line Gaussian Diffusion Model will be displayed. Click "ok"
- At the Imminent Release screen, click "Exit"
- At the Dose Calculation screen the Straight Line Gaussian numbers calculated for the Imminent Release with a decayed source term will be displayed for Containment Leakage.
- Click the "Change Met Parameters" button
    - The "Change Met Parameters" screen will appear with the values used for the Imminent Release Calculation
    - Click "ok" to accept or change as desired.
- You may now calculate plumes based on the Imminent Release parameters

3.1.7 To return EAGLE to the default spectrum after doing an Imminent Release Calculation

- Click "Contamn Leak"
- From the Change Release Rate Screen
    - Click "No Release"
    - Click "Change Isotopic Spectrum"
        - Click "Reset All To Default Spectrum"
        - Click "OK"
- You may now enter data based on the Default Spectrum.

4. Liquid Release Assessment

4.1 Entering Data

4.1.1 From the Main EAGLE Menu Select "Tabular Displays of Dose Calculations".

4.1.2 From that menu select the "Liquid Effluent Isotopic Activity Display".

4.1.3 At the "Projected Isotopic Activity at MUD Intake Structure Screen" enter:

- Liquid flow rate (available from the Control Room)
- River flow rate
- The isotopic activity (obtain from Chemistry)
- Click "Calculate Projected Activity" button

4.1.4 Hard copies of all EAGLE screens may be made by

- With Microsoft Word open and minimized and the EAGLE window active
- Simultaneously hit the "Alt" and "Print Screen" buttons
- Maximize Microsoft Word
- Click "Edit"
- Click "Paste"

4.1.5 If the results exceed the EPA limits ensure that Command and Control position reports results to:

- MUD dispatcher
- Nebraska Emergency Management Agency

5. Errors

5.1 If an error message should appear:

5.1.1 Follow the on screen instructions.

5.1.2 If errors cannot be corrected, or other problems arise, reboot the system.

5.1.3 If the problem is still not corrected, perform dose assessment on another EAGLE terminal.

5.1.4 If printer fails, manually record dose assessment results on a FC-1188 form.

6. Graphic and Tabular displays and further guidance on dose assessment are explained in the EAGLE 5.0 User's Guide and the EAGLE help menu.

Attachment 6.5 - Determining Unmonitored Release Rates Page 1 of 9

NOTE: For determining projected release rates from the Ventilation Stack when RM-062/52 and 63 are off-scale/not available, refer to CH-SMP-PA-0005.

NOTE: For determining projected release rates from the Main Steam/Condenser Off-gas system when RM-057/64 are off-scale/not available, use Section 1

NOTE: For determining projected release rates from Containment when RM-091A/B and RM-070 through RM-075 are off-scale/not available, use Section 2.

NOTE: For determining actual release rates using Field Team data, use Section 3.

1. For unmonitored releases via Condenser Off-gas/Main Steam System:

   1.1 If RM-057 is off-scale or is not operable, and Condenser Off-gas is vented to the atmosphere via the Turbine Building Roof, perform dose assessment using RM-064 and a main steam flow in lbm/hr from the affected Steam Generator (ERFCS page 353) per the following criteria:

      1.1.1 If RM-064 is reading at or below background, use one (1) net count per minute (NCPM) for the RM-064 reading, an Iodine/Noble Gas Ratio of 0.003 and Attachment 6.4 to perform dose assessment.

      1.1.2 If RM-064 is reading above background, use the indicated reading on RM-064, and Iodine/Noble Gas Ratio of 0.003 and Attachment 6.4 to perform dose assessment.

      1.1.3 If RM-064 is off-scale high or is not operable, go to Section 1.3 below.

   1.2 For unmonitored releases via FW-10, the Atmospheric Dump Valve (HCV-1040) or a Main Steam Safety Valve, perform dose assessment per the following criteria:

      1.2.1 If RM-064 is reading at or below background use one (1) net count per minute (NCPM) for the RM-064 reading, a flow rate as determined from EAGLE, an Iodine/Noble Gas Ratio of 0.003, and Attachment 6.4 to perform dose assessment.

      1.2.2 If RM-064 is reading above background, use the indicated reading on RM-064, a flow rate as determined from EAGLE, an Iodine/Noble Gas Ratio of 0.003 and Attachment 6.4 to perform dose assessment.

      1.2.3 If RM-064 is off-scale high or is not operable, go to Section 1.3 below.

1.3 If RM-064 goes off-scale high or is otherwise known to be inoperable, perform the following:

1.3.1 Obtain direct radiation readings on the main steam lines in Room 81. Refer to Figure 6.5.1 for reading locations.

1.3.2 If the dose rate is between 0 and 100 mRem/hr, use the following equation to calculate the TEDE release rate:

Q_{TEDE} = (17.5) (Contact Dose Rate in mRem/hr)

1.3.3 If the dose rate is >100 mRem/hr, use the following equation to calculate the TEDE release rate:

Q_{TEDE} = (5) (Contact Dose Rate in mRem/hr)

1.3.4 Multiply the Q_{TEDE} from Step 1.3.2 or 1.3.3 by the following to obtain the Noble Gas, Iodine and Particulate release rate in Ci/sec:

(Q_{TEDE}) (0.981) = Noble Gas Release Rate in Ci/sec

(Q_{TEDE}) (0.003) = Iodine Release Rate in Ci/sec

(Q_{TEDE}) (0.009) = Particulate Release Rate in Ci/sec

1.3.5 Input the Noble Gas, Iodine and Particulate Release Rate into EAGLE dose assessment program to obtain the dose and dose rate results. (AR 17061)

2. Containment Leakage

2.1 If all Containment Area Radiation Monitors are off-scale or inoperable, perform the following:

2.1.1 Obtain direct radiation readings on containment penetrations C-2 or H-4. Refer to Figures 6.5.2 and 6.5.3 for reading locations.

2.1.2 Multiply this penetration reading by the Containment Multiplication Factor (CMF) using Figure 6.5.4, to determine an equivalent area monitor reading.

2.1.3 Insert the area monitor reading into the EAGLE dose assessment procedure to obtain the dose and dose rate results.

3. Determining Actual Release Rates from Field Team Data

NOTE: Field Teams must be dispatched, and data from the approximate plume centerline must be available in order to complete this procedure. The Field Team Specialist should be consulted for Field Team data.

3.1 Obtain FC-EPF-29 and collect the following data:

3.1.1 Date and time.

3.1.2 Downwind distance (in miles) to the sampling location.

3.1.3 Wind direction

3.1.4 Delta temperature (ΔT)

3.1.5 Wind speed

3.1.6 Diffusion factor ($\chi\mu/Q$) - Using Figure 6.5.5, determine the projected diffusion factor, based on time of day and downwind distance. During transitional periods, use the more conservative, or smaller, value.

3.1.7 Dose rate reported from the field team in Rem/hr.

3.1.8 Iodine air concentration reported from the field team in µCi/cc.

3.1.9 Particulate air concentration reported from the field team in µCi/cc.

3.1.10 Noble gas release rate from dose rate (Q_{NG} in Ci/sec) - Multiply the wind speed (Step 3.1.5) by the dose rate (Step 3.1.7) and by the factor provided, then divide the result by $\chi\mu/Q$ (Step 3.1.6).

3.1.11 Iodine release rate from Q_{NG} (in Ci/sec) - Multiply the noble gas release rate (Step 3.1.10) by the factor provided.

3.1.12 Iodine release rate from air sample data (in Ci/sec) -If desired, this method may be used if iodine air sample date is available from the Field Teams. Multiply the wind speed (Step 3.1.5) by the iodine concentration (Step 3.1.8), then divide the result by the $\chi\mu/Q$ (Step 3.1.6).

3.1.13 Particulate release rate from air sample data (in Ci/sec) - Multiply the wind speed (Step 3.1.5) by the particulate concentration (Step 3.1.9), then divide the result by the $\chi\mu/Q$ (Step 3.1.6).

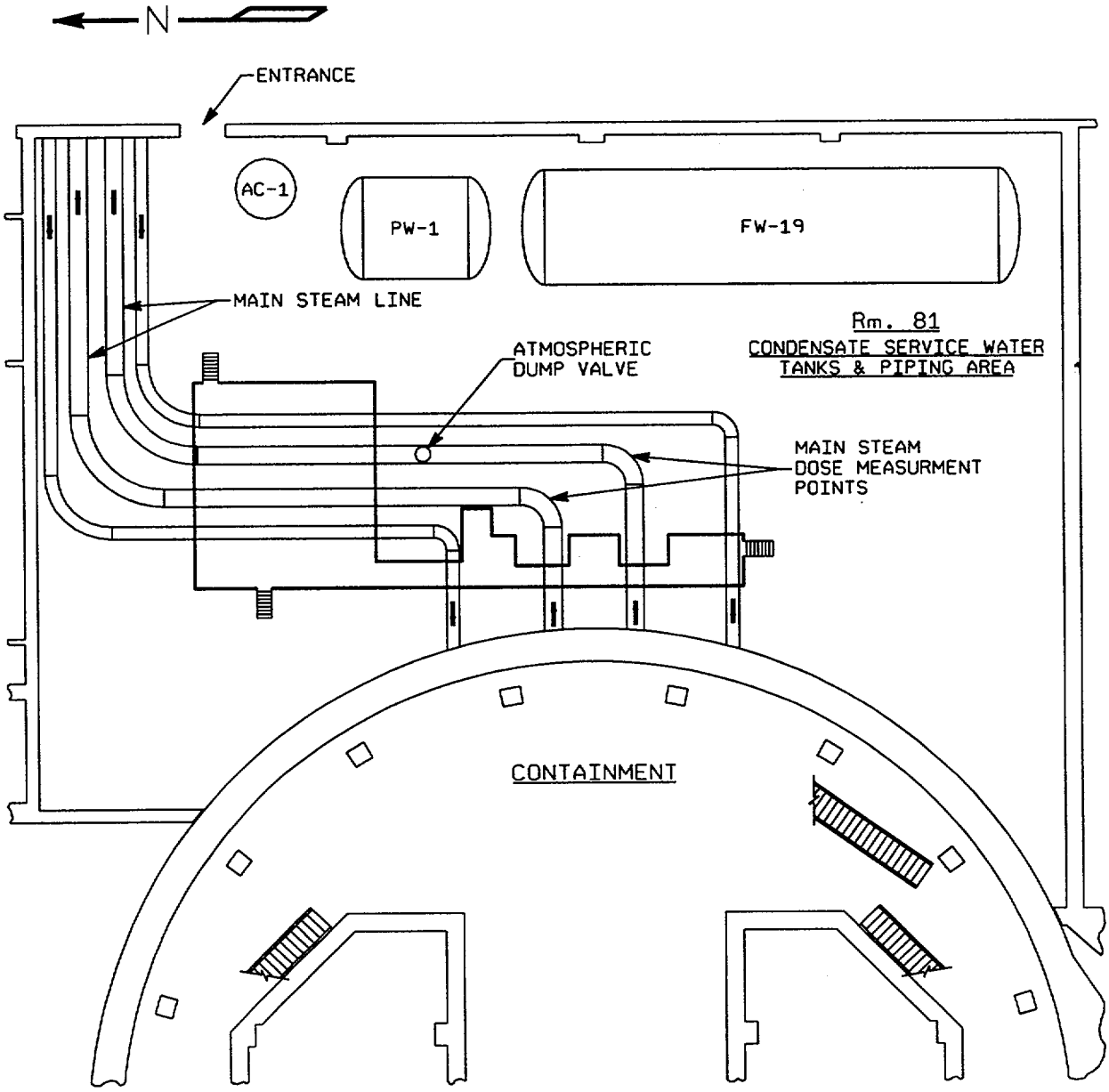
3.2 Input Of Results

3.2.1 Upon completion of the calculations, input the release rate data into the EAGLE dose assessment procedure to obtain any dose and dose rate data as needed.

3.3 Follow-up Actions

3.3.1 Sign the assessment form and indicate the time completed.

Figure 6.5.1 - Main Steam Headers Radiation Dose Measurement Point Locations



Attachment 6.5 (continued)

Page 6 of 9

Figure 6.5.2 - Auxiliary Building - Plant Elevation 1007'-0" & 1013'-0

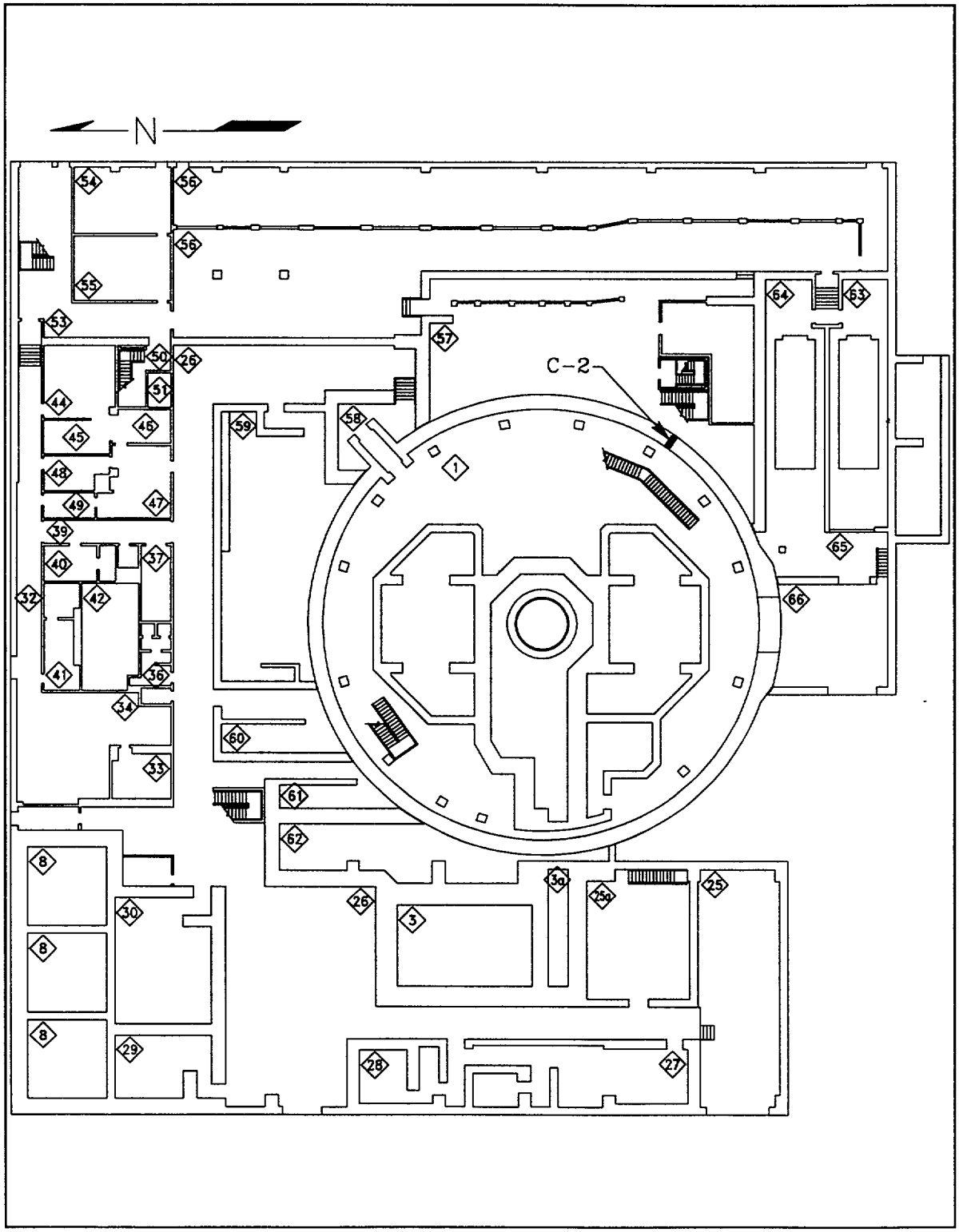
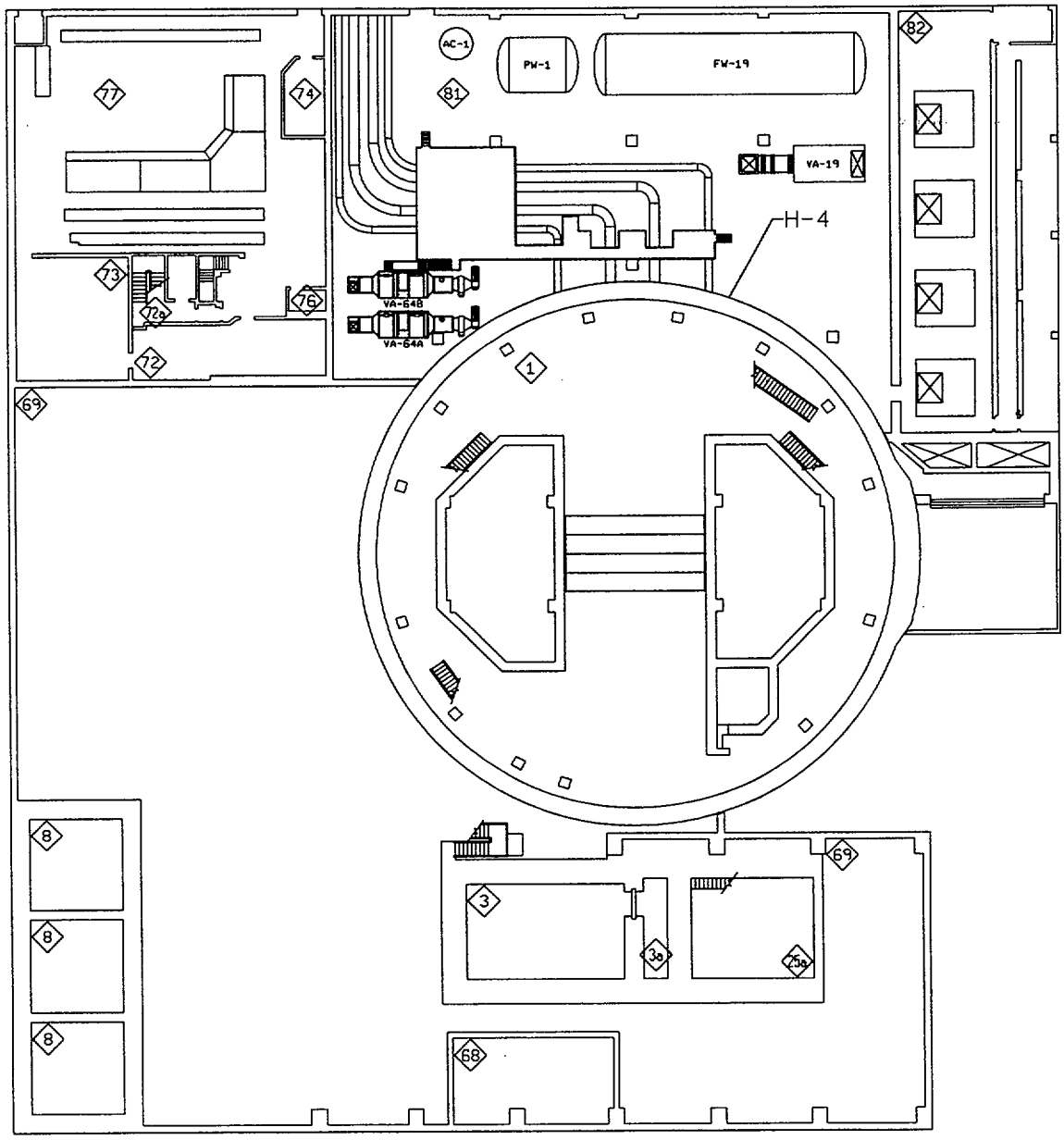


Figure 6.5.3 - Auxiliary Building - Plant Elevation 1036'-0



Attachment 6.5 (continued)

Figure 6.5.4 - Containment Multiplication Factor (CMF)

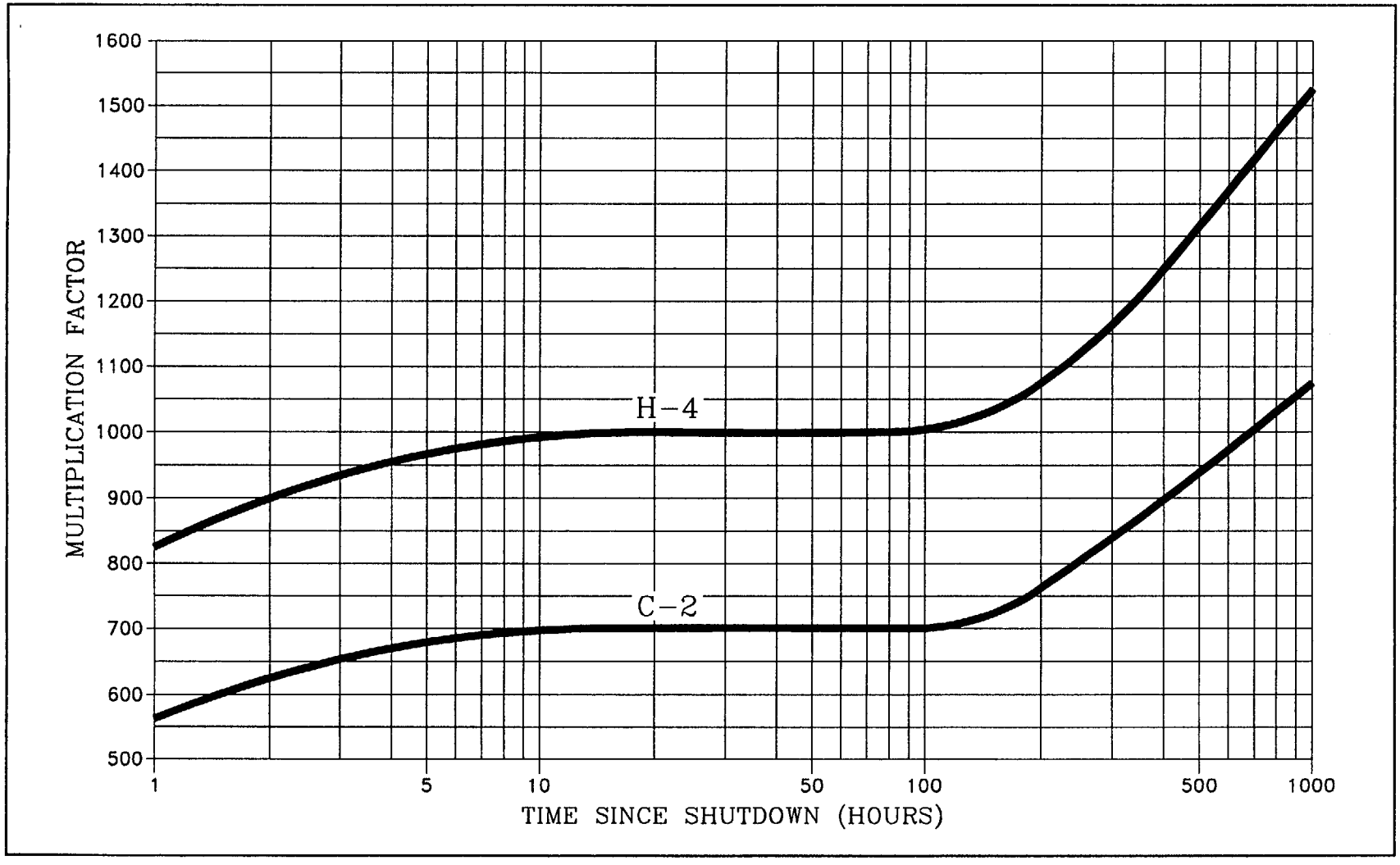


Figure 6.5.5 - Diffusion Factors