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TO: Document Control Center - NRC File Room

DOCUMENT CHANGE NOTICE NO. 138

DATE: November 9, 2000

FROM: YNPS Site Services Department

DOCUMENT: Implementing Procedures to the Emergency Plan

1. Enter the attached documents in your manuals and/or files, discard all obsolete copies, and return this form to the Site Services Department at Yankee-Rowe, or DE&S Records Center, as applicable within 30 Calendar days.

YNPS Site Services DE&S Records Center - Marlborough

2. SAFEGUARDS INFORMATION DOCUMENTS

ALL OBSOLETE copies shall be returned to the Security Shift Supervisor for SHREDDING. SAFEGUARDS INFORMATION documents shall be hand-to-hand delivered or enclosed in two properly sealed and addressed envelopes. Return this form to the Site Services Department.

DESCRIPTION OF CHANGE: **ISSUANCE:** Implementing Proc. to the E-Plan

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PROCEDURE NO. REV. NO.

OP-3300	19
OP-3315	17
OP-3324	15
AP-3425	8
AP-3426	14
AP-3450	9
AP-3451	1
AP-3452	1

DOCKET NO. 50-29
LICENSE NO. DPR-3

Please replace page 1 of OP-3343, Rev. 13. It had an incorrect review date.

Please sign and return to: Renee Prilipp
Yankee Atomic Electric Co.
49 Yankee Rd.
Rowe, MA 01367

Departmental Working Copies have been Reviewed and Working Copy Files Updated.

N/A
Departmental Signature (N/A if not applicable)

The above documents have been entered in the applicable Department Manuals and/or files and all Obsolete copies have been discarded or identified as obsolete. [3, 5.2.15, Paragraph 9, Item 4] SAFEGUARDS INFORMATION documents will be handled per #2 above.

Signature

Date

A045

YANKEE NUCLEAR POWER STATION
IMPLEMENTING PROCEDURES TO THE EMERGENCY PLAN
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TABLE OF CONTENTS

Rev. 138

IMPLEMENTING PROCEDURES

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	Technical Support Center (TSC) Activation and Operations	OP-3324	Rev. 15
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	Security Force Actions Under Emergency Conditions	OP-3344	Rev. 22
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	Emergency Preparedness Training	AP-3450	Rev. 9
	Responsibilities for Maintaining and Implementing the Emergency Preparedness Program for YNPS	AP-3451	Rev. 1
	Revision Process for the Yankee Plant (YP) Defueled Emergency Plan	AP-3452	Rev. 1

CLASSIFICATION OF EMERGENCIES

SCOPE

To provide a means to classify an emergency based on reaching specific predetermined levels.

ENCLOSURES

OP-3300 - Pgs. 1-2
Attachment A - Pgs. 1-6

REFERENCES

1. Yankee Plant Defueled Emergency Plan
2. AP-0227, "Condition Reporting, Investigation, and Self Assessment"

DEFINITIONS

Emergency Action Level (EAL): A Plant specific system and/or effluent parameter values characteristic of a spectrum of off-normal conditions which, if exceeded, will initiate one of the two emergency classifications.

Event: A category of EALs grouped according to plant systems or condition. The magnitude of the event, as indicated by the EAL, dictates which class of emergency must be declared.

UNUSUAL EVENT: Signifies events are in progress or have occurred which indicate a potential degradation of the level of safety at the plant.

ALERT: An event which indicates an actual or potential substantial degradation in the level of safety to personnel on-site or to the safe containment of fuel.

Hurricane Warning: An emergency category issued by the NWS indicating that sustained winds of 74 miles per hour or more are expected in a specified area in 24 hours or less.

DISCUSSION

Attachment A provides a method to determine which event class is appropriate for the event(s) which is/are occurring. In addition to specific Emergency Action Level (EALs), nonplant-related events (e.g., aircraft crash on-site) are included. If an event in progress requires assistance or additional resources, the Defueled Emergency Plan may be implemented at the Shift Supervisor's discretion even though no EAL has been reached. The methods of classifying an emergency include:

- The use of specific plant instrumentation readings.
- Review of system status.

- Consideration of outside forces which could impact the plant.

Emergencies will be classified as one of the following:

- UNUSUAL EVENT
- ALERT

PRECAUTIONS

None

PREREQUISITES

1. Perform this procedure concurrent with other emergency/operating procedures and operator actions which are in progress to mitigate and control the event(s) at hand.

PROCEDURE

1. Identify the event category per Attachment A.

NOTE: When determining the class of the event, the EALs are to be used exclusively within the applicable event.

2. Classify the event per Attachment A.

3. Declare the most severe event class, consistent with the EAL that has been reached.

NOTE: Notification of off-site (state and federal) authorities is intended to be completed as soon as possible but within one hour. This time is measured from the time at which operators declare an emergency.

4. Once an event class has been determined, initiate OP-3315, Control Room Actions During an Emergency.

FINAL CONDITIONS

1. An event has been classified and the Defueled Emergency Plan has been initiated as appropriate.

OR

2. The event has been reclassified, if plant conditions have deteriorated/improved.

ATTACHMENT A

CLASSIFICATION OF EVENTS

<u>Event No.</u>	<u>Initiating Event Category</u>	<u>Page No.</u>
1	Radioactive Releases/Abnormal Radiation Levels	2,3
2	Spent Fuel Pit Events	4
3	Security Compromise	5
4	General Events	6

EVENT NO. 1 - RADIOACTIVE RELEASES/ABNORMAL RADIATION LEVELS

ALERT

I. Radiation levels which indicate a severe degradation in the control of radioactive materials.

EAL:

A.1 Confirmed release of radioactivity that results in a Spent Fuel Pit manipulator crane area radiation monitor greater than 100 mR/hr.

OR

A.2 Confirmed release of radioactivity that results in a Primary Vent Stack Normal Range Noble Gas Monitor reading off-scale high (OSH).

UNUSUAL EVENT

I. Unplanned, uncontrolled release of liquid effluent greater than two times Technical Specification limits.

EAL:

A. The concentration of the liquid effluent has been analyzed to be greater than 2 times the limit specified in 10 CFR, Part 20, Appendix B, Table II.

II. Damage to an irradiated fuel assembly with the release of radioactivity to the Spent Fuel Pit Building.

EAL:

A. Confirmed Spent Fuel Pit Building continuous air monitor alarming and greater than 80,000 cpm above background.

OR

B. Primary Vent Stack Normal Range Noble Gas Monitor reading greater than 10,000 cpm above background.

(continued on next page)

EVENT NO. 1 - RADIOACTIVE RELEASES/ABNORMAL RADIATION LEVELS -
(continued)

ALERT

UNUSUAL EVENT

- III. A cask drop or component incident, resulting in a degradation in the control of radioactive material,

EAL

- A. Valid radiation monitor reading increases by a factor of 1000 over normal levels (Normal being the highest reading in the past 24 hours excluding the current peak value).

AND

- B. Access to areas required for incident mitigation is limited.

EVENT NO. 2 - SPENT FUEL PIT EVENTS

ALERT

UNUSUAL EVENT

I. Uncontrolled decrease of Spent Fuel Pit water level.

EAL:

A. Spent Fuel Pit low water level alarm.

AND

B. Total loss of capability to restore water level to the Spent Fuel Pit.

II. Loss of Spent Fuel Pit Cooling systems.

EAL:

A. Total loss of capability to cool to Spent Fuel Pit.

AND

B. Spent Fuel Pit temperature exceeds 150°F.

EVENT NO. 3 - SECURITY COMPROMISE

NOTE: Implementation of the Security Contingency Plan does not necessarily require the declaration of an emergency. The Shift Supervisor/Incident Director should coordinate with the Security Shift Supervisor for classification.

ALERT

I. Severe security event.

EAL:

A. Ongoing severe security event involving a physical attack on the facility.

OR

B. Penetration of the Plant Industrial Area Boundary is made by hostile forces.

UNUSUAL EVENT

I. Communications with security has confirmed the seriousness or credibility of the following related events.

EAL:

A. Bomb threat.

OR

B. Attack threat.

OR

C. Actual civil disturbance involving violent activities at the Plant Industrial Area Boundary.

OR

D. Attempted entry into the Plant Industrial Area with malicious intent.

OR

E. Internal security disturbance on-site.

OR

F. Unavailability of the security force.

OR

G. Confirmed tampering with security equipment which results in a significant loss of capability.

EVENT NO. 4 - GENERAL EVENTS

ALERT

UNUSUAL EVENT

I. Hazards severely affecting the Spent Fuel Pit Building or on-site personnel.

I. Hazards experienced or projected which have the potential for affecting the Spent Fuel Pit Building or on-site personnel.

EAL:

EAL:

A. A fire on-site causing damage to the Spent Fuel Pit Building.

A. A fire on-site lasting greater than 30 minutes after detection.

OR

OR

B. Earthquake experienced on-site causing damage to the Spent Fuel Pit Building.

B. Earthquake experienced on-site for greater than 5 seconds.

OR

OR

C. A hurricane or severe weather experienced on-site causing damage to the Spent Fuel Pit Building.

C. A hurricane WARNING issued for the local area by the National Weather Service.

OR

OR

D. Any tornado experienced on-site causing damage to the Spent Fuel Pit Building.

D. Floods affecting the plant site.

OR

OR

E. Aircraft crash on-site causing damage to the Spent Fuel Pit Building.

E. A tornado experienced on-site.

OR

OR

F. Explosion on-site causing damage to the Spent Fuel Pit Building

F. Aircraft crash on-site.

OR

OR

G. A release of toxic or flammable gases requiring evacuation of the site.

G. Unusual aircraft activity over site which poses a potential security threat.

OR

H. Unexpected explosions near site or on-site.

OR

I. Toxic or flammable gas releases on-site.

II. Plant conditions exist that warrant precautionary mobilization of emergency personnel and facilities.

II. Plant conditions exist that warrant increased awareness on the part of the plant staff.

EAL:

EAL:

A. Shift Supervisor's opinion.

A. Shift Supervisor's opinion.

CONTROL ROOM ACTIONS DURING AN EMERGENCY

SCOPE

This procedure outlines the basic emergency plan requirements and actions to be followed by the Control Room personnel in an emergency.

ENCLOSURES

OP-3315 - Pgs. 1-2
Attachment A - Pgs. 1-5
Attachment A-1 - Pgs. 1-2
OPF-3315.1 - Pgs. 1-4 - Rev. 17
OPF-3315.2 - Pgs. 1-2 - Rev. 17
Attachment B - Pg. 1

REFERENCES

1. Yankee Plant Defueled Emergency Plan
2. AP-0227, "Condition Reporting, Investigations and Self Assessments"
3. OP-3300, "Classification of Emergencies"
4. OP-Memo 2E-4, "ERO Augmentation"
5. OP-Memo 2E-6, "Emergency Response Facilities Telephone Directory"
6. AP-0711, "Communications Systems"

DISCUSSION

The Control Room is located in the Gatehouse. Upon declaration of one of the two emergency classifications, the Control Room becomes an Emergency Response Facility and the Shift Supervisor assumes the duties of Incident Director.

During the initial stages of an emergency, the Control Room staff will direct all phases of the emergency response. Actions will include:

- Classifying an Emergency.
- Notifying appropriate State authorities.
- Notifying Emergency Response Organization personnel.
- Notifying the NRC.

- Initiating on-site habitability surveys, if necessary.
- Formulating on-site personnel response recommendations, if necessary.
- Performing initial off-site dose assessment, if necessary.
- Initiating corrective actions required to restore normal operation, if necessary.

As personnel respond to the Technical Support Center (TSC), the emergency functions listed above will be transferred to the TSC.

PRECAUTIONS

None

PREREQUISITES

An UNUSUAL EVENT or ALERT has been declared.

PROCEDURE

1. Based on your assigned function, follow the procedural guidance of the appropriate attachment listed below:

<u>Attachment</u>	<u>Title and Implementation Responsibilities</u>
A	Incident Director (Shift Supervisor)
B	Equipment Operator

2. Record the status, time done, and initials, as required by each attachment.

3. Initiate AP-0227 for any identified discrepancies. [2]

FINAL CONDITIONS

1. As specified in the appropriate attachments.
2. Initiate AP-0227 for any identified discrepancies. [2]

ATTACHMENT A

INCIDENT DIRECTOR (SHIFT SUPERVISOR)

This attachment will be completed by the Shift Supervisor (SS) who will assume the position of Incident Director. The Incident Director will remain in command and control of emergency response actions until relieved by the on-call Incident Director.

PROCEDURE

NOTE: Regardless of the classification, all steps of this attachment must be completed. NA should be used for any steps that do not apply.

	<u>Time Done</u>	<u>Initials</u>
1. Classify the emergency per OP-3300, "Classification of Emergencies."		
• UNUSUAL EVENT	_____	_____
• ALERT	_____	_____
2. If not already being performed initiate and maintain a log of significant events.	_____	_____
3. Tell the Security Alarm Station Operator:		
a. What emergency classification was declared.		
b. To initiate OP-3344, "Security Force Actions Under Emergency Conditions," Attachment B.	_____	_____
c. To call the pager wearers listed in Attachment A of OP-Memo 2E-4, if the Group Paging System is inoperable.	_____	_____

Time Done Initials

4. Instruct the Control Room personnel to make the appropriate announcement over the Gaitronics System:

- UNUSUAL EVENT (Attachment A-1)
- ALERT (Attachment A-1)

5. **AS SOON AS POSSIBLE AND WITHIN ONE HOUR OF THE EMERGENCY DECLARATION:**

a. Notify the Commonwealth of Massachusetts and the State of Vermont via the Nuclear Alert System (NAS):

- UNUSUAL EVENT (OPF-3315.1)
- ALERT (OPF-3315.2)

b. When State representatives call back to the plant, record the name of the caller and be prepared to provide the following information (if known and appropriate) upon request:

- Time and classification of emergency.
- Emergency response actions underway.

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NOTE: All public information-related telephone calls should be forwarded to the Public Affairs Representative. (refer to OP-Memo 2E-4 Att. B for contact numbers)

6. **AS SOON AS POSSIBLE AND WITHIN ONE HOUR OF THE EMERGENCY DECLARATION:**

Notify the NRC via the Federal Telecommunications System (FTS). Refer to the appropriate attachment of AP-0711, "Communications Systems," for usage and numbers.

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		<u>Time Done</u>	<u>Initials</u>
7.	Direct the Equipment Operator to initiate Attachment B.	_____	_____
8.	Request assistance, as needed, from outside agencies for equipment and manpower needed to deal with the event. (Refer to OP-Memo 2E-6 for numbers)		
	• Fire	_____	_____
	• Medical (Ambulance)	_____	_____
	• Law Enforcement (coordinate with the Security Shift Supervisor)	_____	_____
9.	If the event produces abnormal in-plant radiological conditions (eg., PVS Noble Gas Normal Range Monitor high alarm) then:		
a.	Direct Equipment Operator to initiate Att. B, Step 2 (Gatehouse Habitability Surveys per OP-3324, "TSC Activation and Operations", Attachment C-1).	_____	_____
b.	If required, then determine personnel response recommendations for on-site personnel.	_____	_____
c.	If required, then provide the personnel response recommendations to the ERO over the Gaitronics System.	_____	_____
10.	If a release of radioactive material is indicated (eg., PVS Noble Gas Normal Range Monitor off-scale high or SFP ARM greater than 100 mR/hr) then: Perform dose projections in accordance with OP-3324, "TSC Activation and Operations," Attachment C-3.	_____	_____
11.	For "Alert" declarations, which require a plant evacuation, if Security determines any person(s) are unaccounted for after completing accountability, then attempt to contact them over the plant Gaitronics System. Initiate actions for search and rescue, as necessary.	_____	_____

	<u>Time Done</u>	<u>Initials</u>
12. In the event that repair and corrective action becomes necessary and adverse radiological conditions may be encountered, utilize the guidance in OP-3324, "TSC Activation and Operations," Attachment C-2.	_____	_____
13. Re-evaluate the emergency classification and if conditions warrant, escalate to an ALERT classification. For escalation to an ALERT classification review Steps 1 through 6 to ensure that appropriate notifications are made.	_____	_____
14. Direct the activities of the Emergency Response Organization until the TSC has been activated, and you have been formally relieved by the on-call Incident Director.	_____	_____
15. Keep the on-call Incident Director informed of plant status and discuss required actions to terminate the event.	_____	_____
16. Termination: If the severity of conditions are less than the associated EALs and all safety functions are being maintained, terminate as follows:		
a. Obtain the concurrence of the on-call Incident Director.	_____	_____
b. Notify the following:		
• NRC Operations Center via FTS (AP-0711).	_____	_____
• Massachusetts Emergency Management Agency Dispatcher via NAS (OPF-3315.1, or.2)	_____	_____
• Vermont State Police Dispatcher via NAS (OPF-3315.1, or.2)	_____	_____
17. When the emergency has been terminated, inform the plant staff by announcing the termination over the Gaitronics System.	_____	_____

Time Done Initials

FINAL CONDITIONS

1. The emergency has been terminated.

2. All attachments of this procedure and associated documentation have been received from emergency response personnel and submitted to the Incident Director.

Completed by: _____

_____ Date/Time

ATTACHMENT A-1

EMERGENCY CLASSIFICATION ANNOUNCEMENTS

Time Done Initials

A. IMMEDIATELY TERMINATING UNUSUAL EVENT

1. Announce:

- "ATTENTION IN THE PLANT
ATTENTION IN THE PLANT"
- "The plant has experienced an
UNUSUAL EVENT which has been
immediately terminated."
- (Describe conditions and
affected area.)
- "Please continue with your
normal duties."

2. Repeat the preceding announcement. _____

B. UNUSUAL EVENT

1. Announce:

- "ATTENTION IN THE PLANT
ATTENTION IN THE PLANT"
- "UNUSUAL EVENT, UNUSUAL EVENT,
UNUSUAL EVENT"
- (Describe conditions and
affected area.)
- "All personnel, stay clear of
the affected area."

2. Repeat the preceding announcement. _____

Time Done Initials

C. ALERT

1. Announce:
 - "ATTENTION IN THE PLANT
ATTENTION IN THE PLANT"
 - "ALERT, ALERT, ALERT"
 - (Describe conditions and
affected area.)
 - "Plant Emergency Response
Personnel report to the TSC."
 - All other personnel report to
the Admin/Training Building on
the hill.
2. Sound the evacuation alarm.
3. Repeat Steps C.1 and C.2.

NOTIFICATIONS TO THE STATES

FOR THE UNUSUAL EVENT IMMEDIATELY TERMINATED CLASSIFICATION - MASSACHUSETTS

NOTE: If the event has terminated, is stabilized and is below the initiating EAL by the time it has been classified, it is considered to be an Unusual Event Immediately Terminated.

Notify the Massachusetts Emergency Management Agency (MEMA) within one (1) hour by dialing 313 on the Nuclear Alert System (NAS). If the NAS is not operable, use a commercial telephone (800-982-6846) and ask for the MEMA Dispatcher.

When the MEMA Dispatcher has answered, identify yourself and request the dispatcher obtain the form for Yankee events and make the following announcement (speak slowly and distinctly):

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- Please do not interrupt until the entire message has been completed.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have declared and immediately terminated an Unusual Event at _____ hours based on Event No. _____ (indicate the Event number and category per OP-3300)
- The plant is permanently shutdown.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, MA. This is (pick one):
_____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of MEMA Dispatcher

Time: _____ Date: _____

Completed By

Shift Supervisor Initials: _____

NOTIFICATIONS TO THE STATES

FOR THE UNUSUAL EVENT IMMEDIATELY TERMINATED CLASSIFICATION - VERMONT

NOTE: If the event has terminated, is stabilized and is below the initiating EAL by the time it has been classified, it is considered to be an Unusual Event Immediately Terminated.

Notify the Vermont State Police (VSP) within one (1) hour by dialing 213 on the Nuclear Alert System (NAS). If the NAS is not operable, use a commercial telephone (802-244-8727) and ask for the State Police Dispatcher.

When the State Police Dispatcher has answered, identify yourself and request the dispatcher obtain the form for Yankee events and make the following announcement (speak slowly and distinctly):

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- Please do not interrupt until the entire message has been completed.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have declared and immediately terminated an Unusual Event at _____ hours based on Event No. _____ (indicate the Event number and category per OP-3300)
- The plant is permanently shutdown.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, MA. This is (pick one):
_____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of VSP Dispatcher

Time: _____ Date: _____

Completed By

Shift Supervisor Initials: _____

NOTIFICATIONS TO THE STATES

FOR THE UNUSUAL EVENT IN PROGRESS CLASSIFICATION - MASSACHUSETTS

Notify the Massachusetts Emergency Management Agency (MEMA) within one (1) hour by dialing 313 on the Nuclear Alert System (NAS). If the NAS is not operable, use a commercial telephone (800-982-6846) and ask for the MEMA Dispatcher.

When the MEMA Dispatcher has answered, identify yourself and request the dispatcher obtain the form for Yankee events and make the following announcement (speak slowly and distinctly):

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- Please do not interrupt until the entire message has been completed.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have declared an Unusual Event at _____ hours based on Event No _____ (indicate the event number and category per OP-3300)
- The plant is permanently shutdown.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, Massachusetts. This is (pick one): _____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of MEMA Dispatcher

Time: _____ Date: _____

Completed By

Incident Director Initials: _____

To terminate the emergency, announce:

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have terminated the emergency at _____ hours.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, Massachusetts. This was (pick one): _____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of MEMA Dispatcher

Time: _____ Date: _____

Completed By

Incident Director Initials: _____

NOTIFICATIONS TO THE STATES

FOR THE UNUSUAL EVENT IN PROGRESS CLASSIFICATION - VERMONT

Notify the Vermont State Police (VSP) within one (1) hour by dialing 213 on the Nuclear Alert System (NAS). If the NAS is not operable, use the commercial telephone (802-244-8727) and ask for the State Police Dispatcher.

When the State Police Dispatcher has answered, identify yourself and request the dispatcher obtain the form for Yankee events and make the following announcement (speak slowly and distinctly):

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- Please do not interrupt until the entire message has been completed.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have declared an Unusual Event at _____ hours based on Event No. _____ (indicate the event number and category per OP-3300)
- The plant is permanently shutdown.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, MA. This is (pick one): _____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of VSP Dispatcher

Time: _____ Date: _____

Completed By

Incident Director Initials: _____

To terminate the emergency, announce:

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have terminated the emergency at _____ hours.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, Massachusetts. This was (pick one) _____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of VSP Dispatcher

Time: _____ Date: _____

Completed By

Incident Director Initials: _____

NOTIFICATIONS TO THE STATES

FOR THE ALERT CLASSIFICATION - MASSACHUSETTS

Notify the Massachusetts Emergency Management Agency within one (1) hour by dialing 313 on the Nuclear Alert System (NAS). If the NAS is not operable use a commercial telephone (800-982-6846) and ask for the MEMA Dispatcher.

When the MEMA Dispatcher has answered, identify yourself and request the dispatcher obtain the form for Yankee events and make the following announcements (speak slowly and distinctly):

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- Please do not interrupt until the entire message is complete.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have declared an Alert at _____ hours based on Event No. _____ (indicate the event number and category per OP-3300)
- The plant is permanently shutdown.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, Massachusetts. This is (pick one): _____ a drill, _____ an actual incident. Please acknowledge with your name."

_____ Time: _____ Date: _____
Name of MEMA Dispatcher

_____ Incident Director Initials: _____
Completed By

To terminate the emergency, announce:

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have terminated the emergency at _____ hours.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, Massachusetts. This was (pick one) _____ a drill, _____ an actual incident. Please acknowledge with your name."

_____ Time: _____ Date: _____
Name of MEMA Dispatcher

_____ Incident Director Initials: _____
Completed By

NOTIFICATIONS TO THE STATES

FOR THE ALERT CLASSIFICATION - VERMONT

Notify the Vermont State Police (VSP) within one (1) hour by dialing 213 on the Nuclear Alert System (NAS). If the NAS is not operable, use a commercial telephone (802-244-8727) and ask for the State Police Dispatcher.

When the State Police Dispatcher has answered, identify yourself and request the dispatcher obtain the form for Yankee events and make the following announcements (speak slowly and distinctly):

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- Please do not interrupt until the entire message is complete.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have declared an Alert at _____ hours based on Event No. _____ (indicate the event number and category per OP-3300)
- The plant is permanently shutdown.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, MA. This is (pick one):
_____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of VSP Dispatcher

Time: _____ Date: _____

Completed By

Incident Director Initials: _____

To terminate the emergency, announce:

- "This is the Yankee Nuclear Power Station in Rowe, Massachusetts.
- This is (pick one): _____ a drill, _____ an actual incident.
- We have terminated the emergency at _____ hours.
- I repeat, this is the Yankee Nuclear Power Station in Rowe, Massachusetts. This was (pick one) _____ a drill, _____ an actual incident. Please acknowledge with your name."

Name of VSP Dispatcher

Time: _____ Date: _____

Completed By

Incident Director Initials: _____

ATTACHMENT B

EQUIPMENT OPERATOR

This attachment will be completed by the Equipment Operator. The Equipment Operator reports to the Shift Supervisor.

PROCEDURE

Time Done

Initials

- | | | | |
|----|---|-------|-------|
| 1. | Contact the Control Room and obtain a briefing from the Shift Supervisor. | _____ | _____ |
| 2. | As directed by the Shift Supervisor, initiate habitability surveys of the Gatehouse in accordance with Attachment C-1 of OP-3324, "TSC Activation and Operations." | _____ | _____ |
| 3. | When additional qualified personnel become available, transfer the responsibility for completing habitability surveys to them. Report the transfer of duties to the Shift Supervisor. | _____ | _____ |
| 4. | Perform in-plant corrective actions as directed by the Shift Supervisor. | _____ | _____ |

FINAL CONDITIONS

1. The emergency has been terminated.
2. This attachment has been completed and all associated documentation has been returned to the Shift Supervisor.

Completed by _____ Date/Time _____ / _____

TECHNICAL SUPPORT CENTER (TSC) ACTIVATION AND OPERATIONS

SCOPE

This procedure outlines the basic requirements and actions to be followed by the personnel who report to the TSC in an emergency.

ENCLOSURES

OP-3324 - Pgs. 1-2
Attachment A - Pgs. 1-3
Attachment B - Pgs. 1-3
OPF-3324.1 - Pg. 1 - Rev. 15
Attachment C - Pgs. 1-2
Attachment C-1 - Pgs. 1-2
OPF-3324.2 - Pg. 1 - Rev. 15
OPF-3324.3 - Deleted
OPF-3324.4 - Pg. 1 - Rev. 15
OPF-3324.5 - Pgs. 1-2 - Rev. 15
Attachment C-2 - Pg. 1
OPF-3324.6 - Pgs. 1-2 - Rev. 15
Attachment C-3 - Pgs. 1-2
OPF-3324.7 - Pg. 1 - Rev. 15
OPF-3324.8 - Pg. 1 - Rev. 15
OPF-3324.9 - Pg. 1 - Rev. 15
Attachment C-4 - Pgs. 1-5
OPF-3324.10 - Pg. 1 - Rev. 15
Attachment C-5 - Deleted
OPF-3324.11 - Deleted
OPF-3324.12 - Deleted
Attachment D - Pg. 1
Attachment D-1 - Pgs. 1-2
OPF-3324.13 - Pg. 1 - Rev. 15

REFERENCES

1. Yankee Plant Defueled Emergency Plan
2. OP-3315, "Control Room Actions During an Emergency"
3. OP-8702, "Classification of Notification and Reporting Requirements for Radiological Incidents"
4. AP-0227, "Condition Reporting, Investigation and Self-Assessment"
5. OP-3343, "Release of Public Information Under Emergency Conditions"

DISCUSSION

The TSC is located in the Gatehouse adjacent to the CR. The TSC will be activated in accordance with Attachment A. The TSC will operate in accordance with Attachments B, C, and D.

The TSC may be activated at the UNUSUAL EVENT or ALERT classifications at the discretion of the Incident Director. It is the responsibility of the Incident Director or designated alternate to implement this procedure. The TSC staff will normally include the Plant Superintendent as Incident Director and other department managers and supervisors from the Maintenance, Construction, Operations, and Radiation Protection/Chemistry.

Access to the TSC will be limited to those personnel with direct input to the emergency situation. Access should be granted to the NRC and representatives of Duke Engineering & Services, if personnel respond.

PREREQUISITES

An UNUSUAL EVENT or ALERT has been declared.

PROCEDURE

1. When it is decided to activate the TSC, use Attachment A.
2. Based on your assigned function, use the appropriate attachment listed below to operate the TSC:

<u>Attachment</u>	<u>Title and Implementation Responsibilities</u>
B	Incident Director
C	Radiological Assessment Coordinator
C.1	Gatehouse Habitability
C.2	Repair and Corrective Action Missions
C.3	Dose Projection
C.4	Site Monitoring Personnel
D	Technical Response Coordinator
D.1	TSC Support Personnel

3. Record the status, time done, and initials, as required by each attachment.

FINAL CONDITIONS

As specified in the appropriate attachments.

ATTACHMENT A

TECHNICAL SUPPORT CENTER (TSC) ACTIVATION

This attachment will be completed when activating the TSC.

PROCEDURE

A.	<u>PREPARATION FOR OPERATIONAL STATUS</u>	<u>Time Done</u>	<u>Initials</u>
1.	The Incident Director will determine operational status. Final status will be logged in the TSC Log Book.	_____	_____
2.	The Incident Director will receive a turnover from the SS.	_____	_____
3.	The TSC is declared operational at the discretion of the Incident Director.	_____	_____
4.	The Incident Director will notify on-site personnel via the Gaitronics that the TSC is activated.	_____	_____
5.	The Public Affairs Representative will be notified. (Refer to OP-Memo 2E-4 Att. B for DE&S contact numbers)	_____	_____
B.	<u>COMMUNICATIONS CHECKS</u>		
1.	Check the operability of the TSC telephones by ringing another TSC extension.		
	• X 2232	___ OP	___ INOP
	• X 2233	___ OP	___ INOP
	• X 2252	___ OP	___ INOP

FINAL CONDITIONS

1. The Incident Director has assumed:
 - a. Command and control of the Emergency Response Organization.
 - b. Responsibility for:
 - Additional emergency classifications.
 - Notifying the states.
 - Maintaining communications with the NRC.
 - Performing Gatehouse habitability, if necessary.
 - Formulating on-site personnel response recommendations, if necessary.
 - Coordinating in-plant corrective actions, if necessary.
2. The TSC has been declared operational by the Incident Director.
3. Initiate AP-0227 for any identified discrepancies. [4]

ATTACHMENT B

INCIDENT DIRECTOR

This attachment will be completed by the Incident Director in the TSC. The Incident Director is responsible for assuming command and control of the entire Emergency Response Organization (ERO).

PROCEDURE

	<u>Time Done</u>	<u>Initials</u>
1. After being notified of an emergency, report to the Control Room and receive a briefing from the Shift Supervisor and assess the situation.	_____	_____
NOTE: If notified by the Paging System outside of normal working hours, then the briefing, assessment and determination of personnel notification should be completed as soon as possible by calling the Control Room.		
2. If the TSC is to be activated ensure Attachment A is completed or is in progress.	_____	_____
3. Assume command and control of the ERO from the Shift Supervisor (Incident Director).	_____	_____
4. Re-evaluate the emergency classification and, if conditions warrant, escalate to an ALERT classification. For escalation to an ALERT classification review Steps 1 through 6 of OP-3315, Attachment A, to ensure that appropriate notifications are made.	_____	_____
5. Assign personnel to assume the following positions:	_____	_____
<ul style="list-style-type: none"> • Radiological Assessment Coordinator (Att. C) • Technical Response Coordinator (Att. D) 		
6. If plant evacuation is necessary, assign an individual to the Administration/Training Building for accountability purposes.	_____	_____

Time Done Initials

7. Following a plant evacuation, if any person(s) are found to be unaccounted for after completion of accountability, then attempt to contact them over the plant Gaitronics System. Dispatch search and rescue personnel as necessary.

8. Direct all accident assessment activities. Develop a list to track significant technical issues that may require follow-up. (Use whiteboard to display list).

NOTE: The DE&S Emergency Support Plan provides for additional emergency response support, as needed.

9. If off-site technical assistance from DE&S is necessary, instruct the Technical Response Coordinator to establish communications with applicable personnel in accordance with OP-3324, Att. D-1, step B.1.

10. If escalation is warranted, notify the states using OPF-3315.2. Notify the NRC of changes in the emergency classification/situation.

11. Review and approve any news releases to be made by the Public Affairs Representative in accordance with OP-3343 [5].

12. As soon as practicable and periodically thereafter, complete OPF-3324.1, Situation Report and transmit according to distribution (refer to OP Memo 2E-6 for telephone numbers).

13. Conduct periodic briefings on plant and emergency status with the TSC staff.

14. Termination: If the severity of conditions are less than the associated EALs and all safety functions are being maintained, terminate as follows:

- Notify the NRC Operations Center via FTS (ENS).
- Notify the Massachusetts Emergency Management Agency Dispatcher (OPF-3315.1).

	<u>Time Done</u>	<u>Initials</u>
• Notify the Vermont State Police Dispatcher (OPF-3315.1).	_____	_____
• Notify the plant staff via the Gaitronics system.	_____	_____
15. Discuss recovery activities with the TSC staff.	_____	_____
16. All documentation from the Control Room and TSC has been collected.	_____	_____

FINAL CONDITIONS

1. Plant recovery activities have been coordinated and all on-site restoration activities have been planned.
2. TSC has been returned to a ready state.
3. Initiate AP-0227 for any identified discrepancies [4].

YANKEE NUCLEAR POWER STATION, ROWE, MASSACHUSETTS

SITUATION REPORT

Issue #

_____ ACTUAL INCIDENT

OR

_____ DRILL/EXERCISE

TIME OF EMERGENCY CLASSIFICATION

_____ UNUSUAL EVENT	_____ ALERT
---------------------	-------------

PLANT CONDITIONS

OVERALL PROGNOSIS: _____ STABLE	_____ IMPROVING	_____ DEGRADING
SYSTEMS/EQUIPMENT AFFECTED:		
CURRENT STATUS:		

RADIOLOGICAL CONDITIONS

RADIOACTIVE RELEASE: _____ YES _____ NO	_____ ANTICIPATED
RELEASE PATHWAY: _____ UNMONITORED _____ STACK	
DOSE RATE PROJECTED (at site boundary): _____ mR/hr	

Remarks:

INCIDENT DIRECTOR INITIALS

TIME COMPLETED

DATE

DISTRIBUTE COPIES TO: NRC Incident Response Center (FAX)
Original to Incident Director

ATTACHMENT C

RADIOLOGICAL ASSESSMENT (RA) COORDINATOR

This attachment will be completed by the Radiological Assessment (RA) Coordinator. The RA Coordinator is responsible for assessing on-site radiological conditions controlling on-site radiological exposures and projecting doses. The RA Coordinator reports to the Incident Director.

During an emergency, it will be necessary to perform various in-plant corrective actions, sampling, and survey missions. In an emergency, it is still necessary to follow normal radiation protection practices. This includes completing documentation in accordance with AP-0806, "RWPs Requests and Use," and OP-8415, "Radiation Work Permits; Issue, Update, and Closeout." Radiation Work Permits will be used to control all recovery missions requiring entries into High Radiation areas, contaminated areas, airborne radioactivity areas and areas of the plant that are subject to rapidly changing radiological conditions.

PROCEDURE

1. After being notified of an emergency, report to the TSC and obtain a briefing from the Incident Director.
2. Ensure that the habitability process has been initiated in accordance with Attachment C-1, if required.
3. Periodically check the ARMs and PRMs and update the radiological status boards. Notify the Incident Director of any extreme radiological conditions that arise on-site.
4. Evaluate the emergency in-plant protective action criteria in accordance with OPF-3324.4.
5. As required for in-plant teams and on-site personnel:
 - Coordinate the radiological aspects of their repair and corrective actions (Attachment C-2).
 - Control and authorize personnel emergency exposures. (OPF-3324.6)
 - Issue Radiation Work Permits (AP-0806 and OP-8415), as required.
6. If necessary, perform dose projections (Attachment C-3) and site monitoring (Attachment C-4).
7. If off-site dose projections at the site boundary (½ mile exclusion area boundary) approach 100 mrem, notify MEMA using the NAS phone to restrict public access at the following access points:
 - MASS/VT State line on River Rd. for southbound traffic
 - Town of Monroe, for northbound traffic on River Rd.
 - Yankee Visitor Center at the bottom of Monroe Hill Rd.
8. Based on current or anticipated radiological conditions, assign a Dosimetry Assistant to issue dosimetry in accordance with normal radiation protection procedures to all CR/TSC and security personnel, if necessary.

9. Verify that all support personnel have been issued emergency dosimetry (i.e., self-reading dosimeter), if necessary.

FINAL CONDITIONS

1. The emergency has been terminated.
2. All radiation protection activities needed are completed.
3. The attachment and related documentation has been forwarded to the Incident Director.
- | 4. Initiate AP-0227 for any identified discrepancies. [4]

ATTACHMENT C-1
GATEHOUSE HABITABILITY MONITORING

This attachment will be implemented when emergency conditions result in a Primary Vent Stack Normal Range Noble Gas Radiation Monitor high alarm.

PROCEDURE

1. Turn on the Eberline AMS-3.
2. Load the filter paper
3. Start the sample pump.
4. Record the time and date the sample was started on OPF-3324.2.
5. Set alarm setpoint to 2000 cpm above the background after stabilization.
6. Set the Dositec alarming dosimeter to alarm at 50 millirem accumulated dose and place it in the vicinity of the AMS-3.
7. If the AMS-3 alarms:
 - a. Notify the Incident Director or the Radiological Assessment Coordinator.

NOTE: "Change out" means stop the sample pump, remove filter paper, load a new filter paper, and restart the pump.

- b. Change out the sample filter in the AMS-3 and record the stop date and time on OPF-3324.2. Place the filter in an envelope and staple to OPF-3324.2. Save the filter for future analysis by RP.
- c. Run the AMS-3 with a new filter for 15 minutes then change out filter paper
 - 1) Record the sample start, sample stop time and sample location on a new OPF-3324.2.
 - 2) Count the filter paper using a GM frisker.
 - 3) Determine the net count rate using OPF-3324.2.
 - 4) Determine the particulate radionuclide concentration using OPF-3324.5, Page 2.
 - 5) Record the particulate concentration on OPF-3324.2.
- d. Determine the Kr-85 concentration
 - 1) Record the AMS-3 strip chart count rate on OPF-3324.2.
 - 2) Determine the Kr-85 skin dose rate using OPF-3324.5, Page 1.
 - 3) Record the Kr-85 skin dose rate on OPF-3324.2.

- e. Forward OPF-3324.2 to the Radiological Assessment Coordinator or incident Director for evaluation and determination of recommended actions per OPF-3324.4.
8. If the Dositec alarms:
- a. Notify the Radiological Assessment Coordinator or the Incident Director.
 - b. Perform a dose rate survey and notify the Radiological Assessment Coordinator or the Incident Director of the results.

FINAL CONDITIONS

- 1. Habitability monitoring is no longer required.
- 2. All documentation generated has been forwarded to the Incident Director.
- | 3. Initiate AP-0227 for any identified discrepancies. [4]

AIRBORNE RADIOACTIVITY SURVEY FORM

PART A: ANALYSIS FOR PARTICULATE

SAMPLING DATA	
Air Pump Time On	Air Pump Time Off
Flow Rate (FR) _____ lpm	Location _____
GM FRISKER ANALYSIS OF PARTICULATE FILTER	
Total Count Rate (C_t) _____	cpm
Background Count Rate (C_{bkg}) _____	cpm
Sample Count Rate ($C_s = C_t - C_{bkg}$) _____	cpm
β - γ Activity Concentration (OPF-3324.5 Pg. 2) _____	μ Ci/cc

PART B: ANALYSIS FOR KR-85

AMS-3 DIRECT MEASUREMENT	
Total Count Rate (C_t) _____	cpm
Kr-85 Activity Concentration (OPF-3324.5 Pg. 1) _____	μ Ci/cc
Kr-85 Skin Dose Rate (3324.5 Pg. 1) _____	mR/hr

Completed by: _____ Date/Time _____
Equipment Operator

PART C: RECOMMENDED ACTION (PER OPF-3324.4)

Completed by: _____ Date/Time _____
Radiological Assessment Coord.
or Incident Director

EMERGENCY IN-PLANT PROTECTIVE ACTION CRITERIA

CAUTION: Exposure to individuals providing emergency functions will be limited to 5 rem whole body or its equivalent to any part of the body for the duration of the emergency.

RADIOLOGICAL CONDITION	PROTECTIVE ACTION
<u>Dose Rate:</u> Greater than 50 mR/hr	<ul style="list-style-type: none"> • Increasing frequency of radiation monitoring to 15 minute intervals. • Evaluate accumulated dose readings periodically.

<u>Particulate Airborne Activity Concentrations:</u> 1E-7 to 5E-7 µCi/cc	<ul style="list-style-type: none"> • Consider issuing respirators to personnel.
Greater than 5E-7 to 1E-5 µCi/cc	<ul style="list-style-type: none"> • Issue respirators to personnel.
Greater than 1E-5 µCi/cc	<ul style="list-style-type: none"> • Evacuate the affected area.

Kr-85 Skin Dose Rate: 1R/hr expected to persist more than one hour OR Accumulated Skin Dose: 2 Rem SDE	<ul style="list-style-type: none"> • Initiate facility evacuation planning.
Kr-85 Skin Dose Rate: 2R/hr expected to persist more than one hour OR Accumulated Skin Dose: 2 Rem SDE	<ul style="list-style-type: none"> • Evacuate the facility.

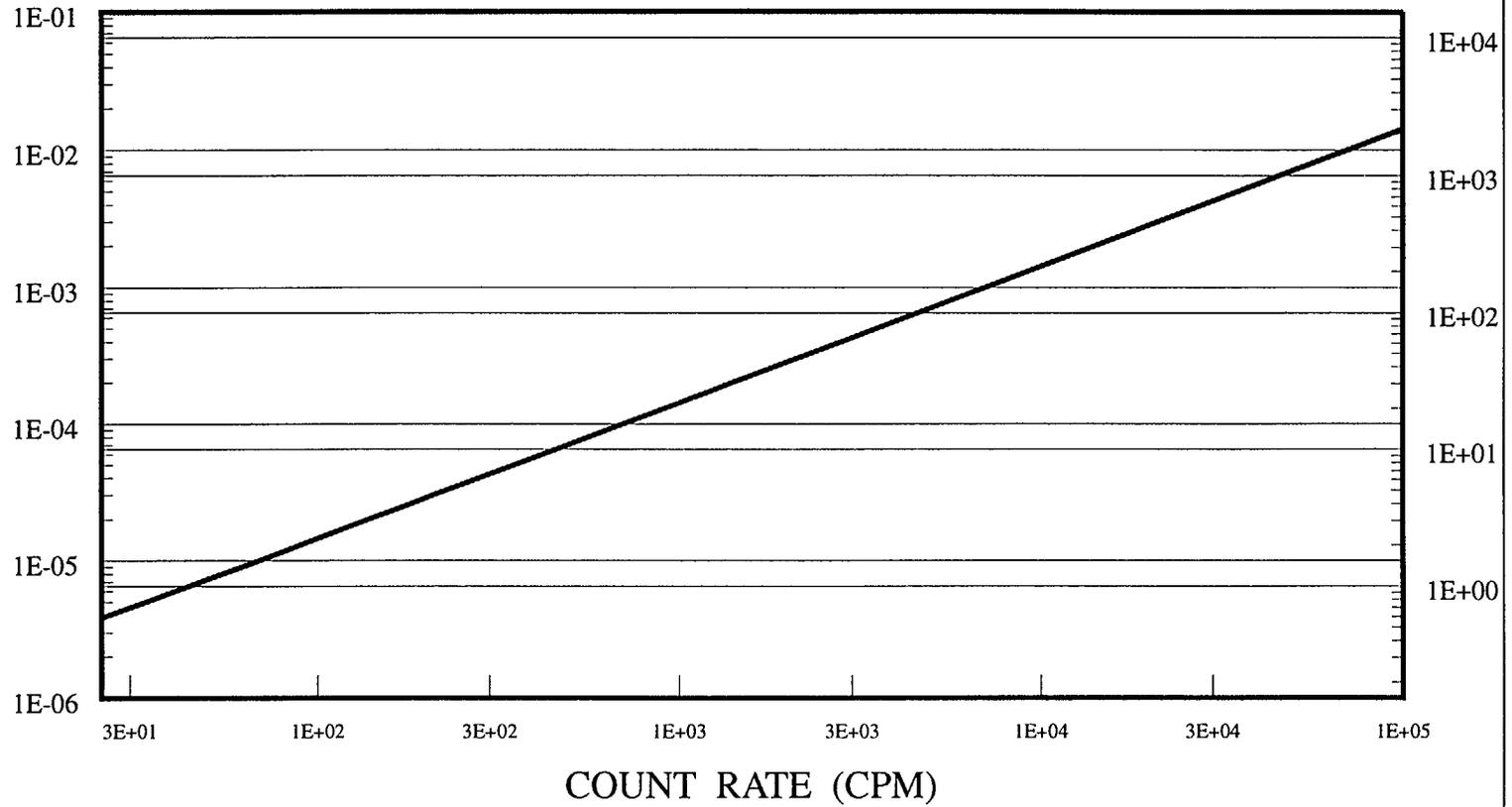
<u>Contamination Levels:</u> Greater than 1,000 dpm/100 cm ² (beta/gamma) or 100 dpm/100 cm ² (alpha)	<ul style="list-style-type: none"> • Issue protective clothing.
<u>Personnel Contamination:</u> Greater than 5,000 dpm/100 cm ² (beta/gamma) After Decontamination	<ul style="list-style-type: none"> • Implement radiological investigative measures.

KRYPTON-85 CONCENTRATION VS.

AMS-3 COUNT RATE

Kr-85 (uCi/cc)

Skin Dose mrem/hr



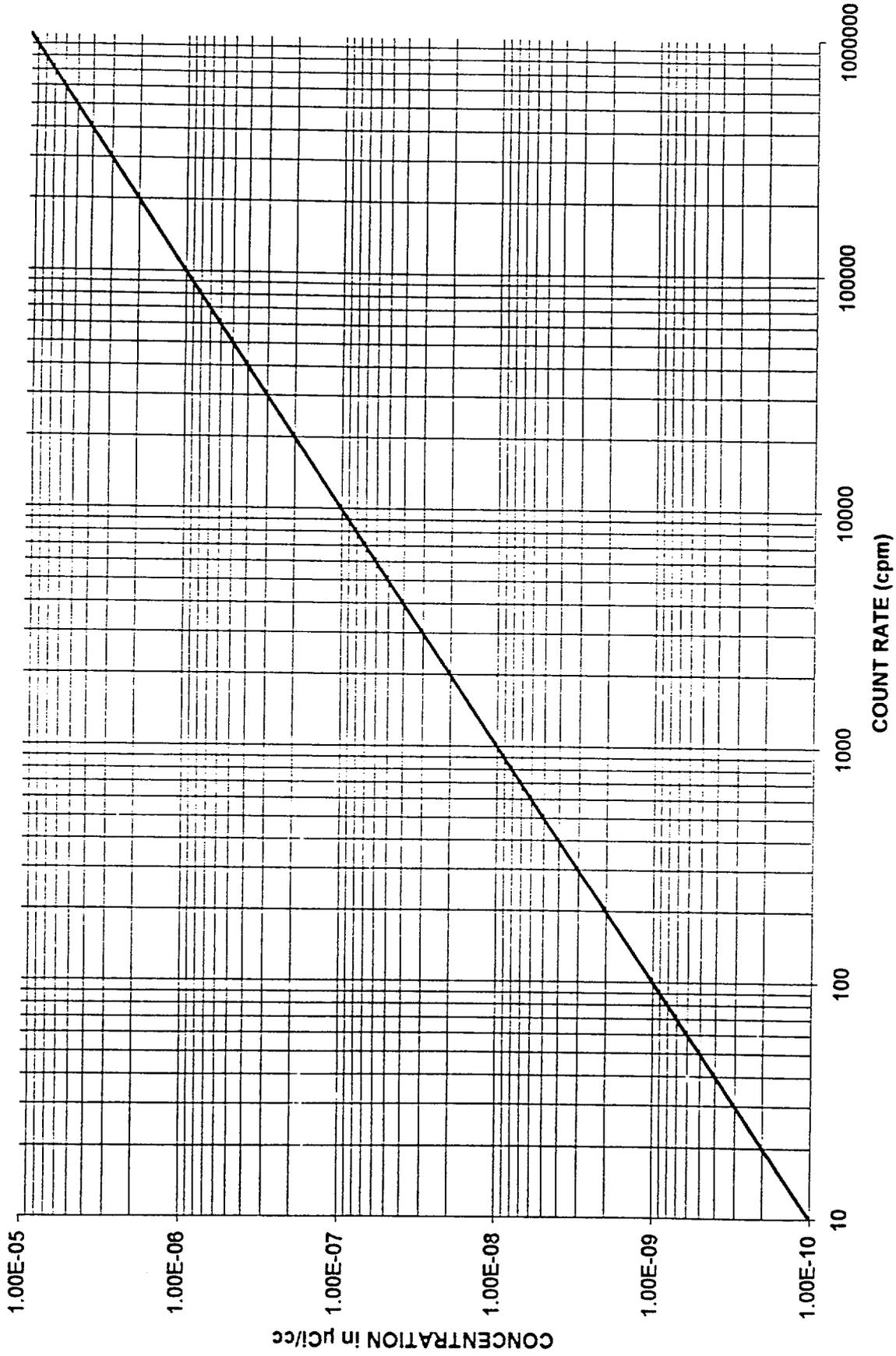
7.01E+6 cpm/uCi/cc

1.53E+5 mrem/hr/uCi/cc

From memo RP 92-12

BETA/GAMMA PARTICULATE CONCENTRATION vs FRISKER COUNT RATE

Based on a 15 minute sample @ 30 liters per minute (lpm)



ATTACHMENT C-2

REPAIR AND CORRECTIVE ACTIONS MISSIONS

This attachment will be implemented when emergency conditions require in-plant survey, repair, or corrective action missions.

PROCEDURE

1. Teams dispatched for this purpose will be accompanied by radiation protection representatives whenever possible.
2. The repair and corrective actions team will use respiratory protection equipment as applicable. Refer to OPF-3324.4.
3. A Direct Reading Dosimeter and TLD will be used. The dosimetry may be bagged against potential gross contamination and may be worn under the protective clothing.
4. Prior to re-entry to the TSC, team members should check themselves and equipment for contamination.
5. High exposures are to be once in a lifetime, so care must be taken not to allow the same personnel to perform subsequent missions, if possible.
6. Schedule all high exposure repair and corrective actions teams for body counts as soon as possible after mission is complete, as necessary.

FINAL CONDITIONS

1. The emergency has been terminated.
2. All documentation generated has been forwarded to the Incident Director.
- | 3. Initiate AP-0227 for any identified discrepancies. [4]

CRITERIA FOR EMERGENCY EXPOSURE

EXPOSURE AUTHORIZATION

1. Emergency exposures may be authorized up to 5 rem TEDE by the Radiological Assessment Coordinator or Incident Director in the TSC.
2. Emergency exposure in excess of 5 rem TEDE may only be authorized by the Incident Director.
3. Exposure authorization for high dose missions (greater than 5 Rem TEDE) should be weighed against the mission, using the criteria in the table below.
4. Selection of volunteers should be done according to the guidance provided in OPF-3324.6 (page 2), "Criteria for the Selection of High Dose Mission Volunteers."

NOTE: Keep exposure as low as reasonably achievable.

5. Although an emergency situation transcends normal requirements for limiting personnel exposure, there are recommended acceptable levels to meet all emergency conditions.

EMERGENCY DOSE LIMITS*

TYPE OF ACTIVITY	TEDE**	CONDITION
All	5 Rem	Maintain ALARA and to extent practicable limit emergency workers to these limits.
Protecting valuable property	10 Rem	Lower dose not practicable
Life Saving or Protection of Large Populations	25 Rem	Lower dose not practicable
Life Saving or Protection of Large Populations practicable	>25 Rem	Only on a voluntary basis to persons fully aware of risks involved, including the numerical levels of dose at which acute effects of radiation will be incurred and numerical estimates of delayed effects.
<p>** Sum of the deep dose equivalent from the external sources and the committed dose equivalent from internal exposures to nonpregnant adults from exposure and intake during an emergency situation.</p> <p>Dose limits to the eye should be 3 times the listed TEDE value.</p> <p>Dose limits to any individual organ (including skin and body extremities) should be 10 times the listed TEDE value.</p>		

* EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, Revised 10/91.

CRITERIA FOR THE SELECTION OF HIGH DOSE MISSION VOLUNTEERS

1. Volunteers above the age of 45 years will be given priority.
2. The individual(s) awareness of the biological consequences that such an exposure can have.
3. All possible protective measures to limit such an exposure.
4. Concurrence with the individual.
5. The probability of success should be balanced against the exposure limit.
6. The individuals familiarity with the task to be performed.
7. The speed with which the individual can perform the task.
8. The individual understands that the emergency dose received will be added to his or her lifetime record and may require exposure limitation in future years.
9. Declared pregnant women should not take part in the planned activities.
10. The anticipated emergency exposures are within the limits provided in OPF-3324.6 (page 1), "Emergency Dose Limits".

ATTACHMENT C-3

DOSE PROJECTION

This attachment will be implemented when a release of radioactive material has taken place or is imminent (i.e., PVSNRNG Monitor is off-scale high (OSH) and/or SFP ARM greater than 100 mR/hr) and performed once every 15 minutes, as a minimum, thereafter.

PROCEDURE

1. Using OPF-3324.7, Data Reduction Sheet, complete the following steps and record the appropriate information (enter NA if the information is not available or not applicable):
 - a. Source Term
 - 1) Primary Vent Stack:

NOTE: The Spent Fuel Pit Area Radiation Monitor should be used if the PVS monitor is not available or off-scale high.

 - a) Obtain and record the Primary Vent Stack Normal Range Noble Gas Channel Monitor (PVSNG) reading (in cpm) or Spent Fuel Pit Area Radiation Monitor reading (in mR/hr).
 - b) Determine and record the number of stack fans in operation.
 - 2) Unmonitored:

NOTE: It may be necessary to supplement this assessment by completing Appendix B and C of OP-8702, "Classification of Notification and Reporting Requirements for Radiological Incidents" specifically for unmonitored releases.

Obtain and record the Spent Fuel Pool Area Radiation Monitor (SFPARM) reading (in mR/hr).
 - b. Site Boundary Dose Rate

Using OPF-3324.8, Primary Vent Stack Release and/or OPF-3324.9, Unmonitored Release, enter the source term value(s) obtained in Step 1a and determine and record the site boundary dose rate(s).
 - c. Release Duration

Estimate and record the duration (in hours) that the source term will be released to the atmosphere and will remain greater than the specified dose rate.
 - d. Site Boundary Dose

Multiply the dose rate determined in Step 1b to the release duration estimated in Step 1c.
 - e. Total and record the sum of the two pathways, as appropriate.
2. Forward completed dose projection calculations (OPF-3324.7) to the Radiation Assessment Coordinator for review and evaluation.

- | 3. Inform the Incident Director of any pertinent information.

FINAL CONDITIONS

- 1. Off-site dose projection is no longer required.
- 2. All documentation generated has been forwarded to the Incident Director.
- | 3. Initiate AP-0227 for any identified discrepancies. [4]

DATA REDUCTION SHEET - SITE BOUNDARY DOSE

Date: _____

Time: _____

Prepared by: _____

Calc. #: _____

RADIOLOGICAL DATA

Primary Vent Stack (PVS): PVSNG Monitor: _____ cpm or

SFPAR Monitor : _____ mR/hr

of fans: 1 2

Unmonitored: SFPAR Monitor: _____ mR/hr

Release Path	Primary Vent Stack	Unmonitored	
Source Term (mR/hr or μ Ci/cc)			
Site Boundary (mR/hr)			
Expected Duration (hours)			Total
Site Boundary Dose (mR)			

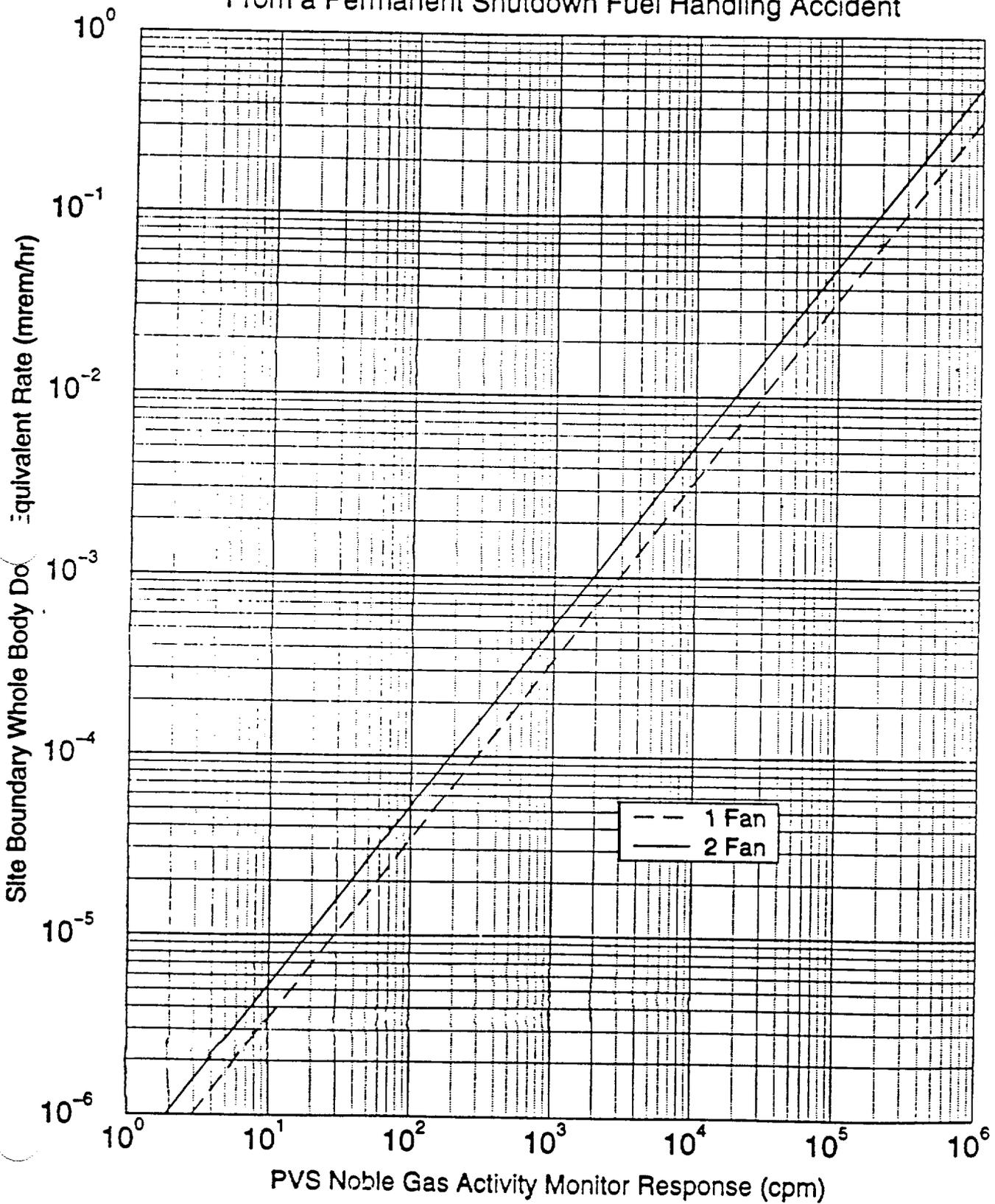
_____ Review by RAC

_____ Date/Time

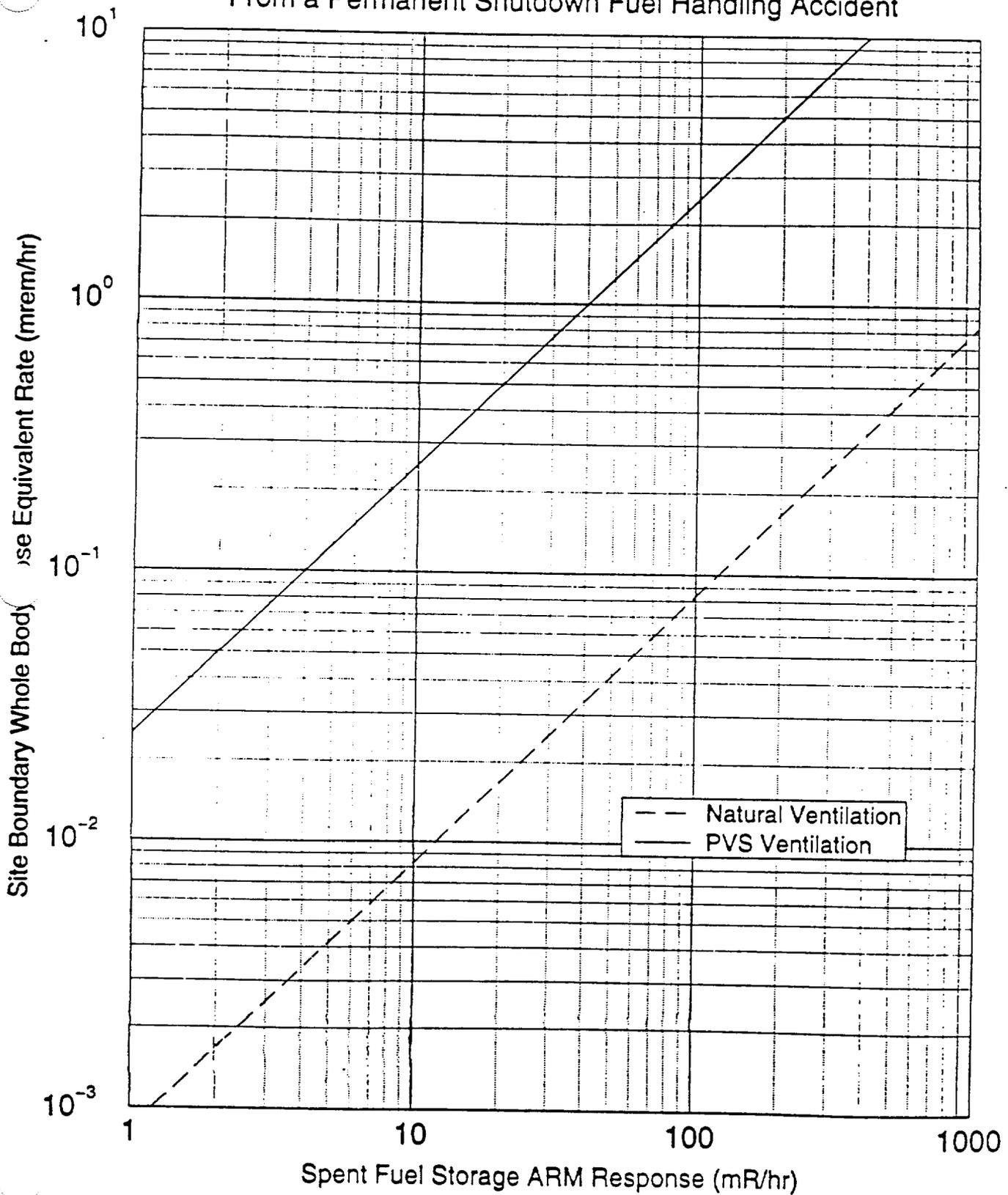
If site boundary (1/2 mile exclusion area boundary) dose projections approach 100 mrem, notify MEMA using the NAS phone to restrict public access at the following access points:

- Mass/VT state line on River Rd. (for southbound traffic)
- Town of Monroe (for northbound traffic on River Rd.)
- Yankee Visitors Center at the bottom of Monroe Hill Rd.

Site Boundary Dose Rate Versus PVS Noble Gas Activity Monitor Response From a Permanent Shutdown Fuel Handling Accident



Site Boundary Dose Rate Versus Spent Fuel Storage ARM Response From a Permanent Shutdown Fuel Handling Accident



Reference: YRC-1122

ATTACHMENT C-4

SITE MONITORING PERSONNEL

This attachment will be completed by the Site Monitoring personnel at the discretion of the Radiological Assessment (RA) Coordinator.

PROCEDURE

	<u>Time Done</u>	<u>Initials</u>
1. Complete Site Monitoring Preparation section and inform the RA Coordinator when completed.	_____	_____
2. While in transit and when requested at various locations, complete survey section.		_____
3. Go to the initial monitoring location as specified by the RA Coordinator.	_____	_____
4. When surveying is completed, return to the TSC. Conduct a personal contamination survey prior to returning.	_____	_____
5. If significant contamination is found, notify the RA Coordinator.	_____	_____

FINAL CONDITIONS

1. The emergency has been terminated.
2. Surveys have been completed and the results recorded.
3. TLDS and pocket dosimeters have been placed in appropriate locations and the dosimeter readings have been given to the Dosimetry Assistant.
4. A personal contamination survey has been completed and the RA Coordinator has been notified of the results.
5. All survey forms and associated documentation have been collected and submitted to the RA Coordinator.
- | 6. Initiate AP-0227 for any identified discrepancies. [4]

SITE MONITORING PREPARATION

PROCEDURE

A. SURVEY KIT EQUIPMENT TESTS

Obtain an Emergency Survey Kit. This survey kit includes equipment required for surveys. If the kit seal is broken, an inventory should be performed as listed on the inside of the kit lid. Additional equipment may be obtained from the equipment at the RP Control Point. This equipment must also be checked for proper operation.

1. Air Sampler Test

- a. Install one charcoal cartridge and particulate prefilter in the holder.
- b. Turn on the air sampler.
- c. Check the flowmeter: if flow rate is less than 1.0 cfm, check with the RA Coordinator to resolve the problem.
- d. Turn off the air sampler.

2. High Range Survey Meter Test

- a. Check the battery charge. Replace the meter if the reading is low.
- b. Switch to the "mR/hr" position and expose it to a check source. If necessary, contact the RA Coordinator to obtain a check source. Verify upscale deflection.
- c. Check the background count rate in the area.
- d. Contact the RA Coordinator if the meter does not respond properly.

3. GM Frisker Test

- a. Check that the detector cable is connected to the instrument.
- b. Turn the operation switch to the "BATTERY" check position. The meter should indicate in the Battery Range; if not, contact the RA Coordinator for resolution of the problem.
- c. Turn the switch to the "ON" position.

- d. Determine the background count rate. Place the probe over the check source on the instrument. The meter should indicate the count rate (cpm) specified for that instrument and source (after background subtraction).

B. SURVEY TEAM RADIO TEST

- 1. Obtain a radio.
- 2. Perform a test to ensure the radio is operational as follows:
 - a. If this is a drill, then state "THIS IS A DRILL" before each transmission.
 - b. In a normal voice and with microphone approximately one inch in front of your mouth, push the microphone button and say: **"Technical Support Center (TSC), this is (specify designation) requesting a radio check. Do you read me?"** Release microphone button. (The TSC base radio will respond to your call.)
 - c. Acknowledge response by pushing the microphone button and saying, **"Technical Support Center (TSC), this is (specify designation). We are awaiting assignment. OVER."** (TSC will acknowledge or give special instructions.)
 - d. Upon completion of transmissions, the last unit to leave the air should say, **"This is (specify designation) Team. Clear."** Follow this format for all radio communications.
- 3. If the radio is inoperable, then obtain a replacement and repeat the test.

C. ADDITIONAL EQUIPMENT

- 1. Obtain a TLD and a pocket dosimeter (POD) for each team member (located in the kits). Insure the POD is zeroed or near zero.
- 2. Log your name, TLD number, and POD reading below.

		POD Readings		
Team Member Name	TLD No.	Start	End	Total Dose

D. SURVEY

1. Proceed to the specified survey area.
2. Perform the following while in transit:
 - a. Take frequent radiation exposure rate readings using the survey meter.
 - b. Attempt to locate the maximum exposure rate readings on you survey instrument by moving along the fence while continuously observing the meter deflection. The objective of the mobile survey is to locate the plume overhead and determine the relative size (or length) and intensity of the plume(s).
 - c. Choose the location of the air sample that yields the maximum cloud dose rate. If significant increases in radiation levels are observed, contact the TSC and report the levels and the locations.
3. Perform an exposure rate survey as follows:
 - a. Hold the survey meter at waist level (approximately one meter above ground level). Record the reading on the "Emergency Radiological Monitoring Survey Form," OPF-3324.10.
 - b. Report survey data to the TSC.
4. Take appropriate air samples as follows:
 - a. Record all the results on the "Emergency Radiological Monitoring Survey Form," OP-3324.10.
 - b. Contact the Radio Operator at the TSC to obtain the sample ID number and record it on the survey form.
 - c. Remain in radio contact with the TSC for further instructions.
 - d. If necessary, place one charcoal cartridge or equivalent and particulate prefilter in the air sample holder.
 - e. Position the air sampler where it can collect fresh air. Attempt to sample areas where there is open air with little or no overhead obstructions.
 - f. Start the air sampler and record the start time on the survey form.
 - g. Check the air flow indicator and record the air flow rate on the survey form.
 - h. Observe the air flow rate during sampling to assure that it remains constant. Adjust the flow rate if necessary.
 - i. Run the air sampler for 15 minutes, unless the RA Coordinator has specified a different sampling duration.
 - j. At the end of the sampling time interval, turn off the sampler and remove charcoal cartridge or equivalent and prefilter. Record the stop time on the survey form.

- k. Label a large envelope or ziplock bag with:
 - Sample ID number.
 - Sample location and date.
 - Time-On/Time-Off and flow rate.
- l. Place filter paper in small envelope.
- m. Place filter envelope and cartridge in the large envelope.
- n. Transport the sample(s) to the Chemistry Lab.
- o. After counting, report the necessary data on the survey form to the RA Coordinator in the TSC.
- p. Save all samples for future analysis.

FINAL CONDITIONS

- 1. All site monitoring has been completed.
- 2. All documentation generated has been forwarded to the Incident Director.
- | 3. Initiate AP-0227 for any identified discrepancies. [4]

EMERGENCY RADIOLOGICAL MONITORING SURVEY FORM

DATE: _____ TEAM: _____ SURVEYOR: _____

AIR SAMPLE DATA

Sample ID Number						
Location						
Survey Exposure Rate (mR/hr)						
Start Time						
Stop Time						
Total Sample Time (mins)						
Flow Rate (cfm)						

IODINE CARTRIDGE ANALYSIS

Cartridge Serial Number						
I-129 Concentration (μ Ci/cc)						

PARTICULATE FILTER ANALYSIS

Transmit air sample data (use OPF-3324.2) to the TSC for each air sample taken.

ATTACHMENT D

TECHNICAL RESPONSE COORDINATOR

This attachment will be completed by the Technical Response Coordinator. This person reports to the Incident Director. The Technical Response Coordinator is responsible for assigning TSC support personnel and coordinating repair and corrective action activities.

PROCEDURE

	<u>Time Done</u>	<u>Initials</u>
1. After being notified of an emergency, report to the TSC and assess the situation based on information supplied by the Incident Director.	_____	_____
2. Assign individuals to the functional positions in support of TSC Operations (Attachment D-1).	_____	_____
3. Coordinate activities concerning repair or corrective action and initiate the use of OPF-3324.13, "Team Briefing/Debriefing," as needed to prioritize team assignments, brief team members, record completion of tasks, and document team activities.	_____	_____

FINAL CONDITIONS

1. The emergency classification condition has been terminated and transition to the recovery mode, if applicable, has been implemented.
2. All documentation has been collected and submitted to the Incident Director.
3. The facility and equipment are being restored to a state of readiness condition or continued operations for recovery planning activities.
4. Initiate AP-0227 for any identified discrepancies. [4]

ATTACHMENT D-1

TSC SUPPORT PERSONNEL

This attachment will be completed by the individuals assigned as communicators, log book, and status board keepers. These positions will report to the Technical Response Coordinator. TSC support personnel may assume more than one position.

A. COMMUNICATORS - (GENERAL INSTRUCTIONS)

1. Staff communication lines as assigned by the Technical Response Coordinator.
2. Maintain a communication log or message forms of information received and sent to emergency response facilities and other support organizations.

NOTE: The log or message form should contain the following information as a minimum:

- Date and time (use 24 hour time notation)
 - Name of parties involved
 - Summary of message received or sent
 - Name of person taking or receiving message
3. Transfer messages promptly.

B. SPECIFIC ASSIGNMENTS

1. Technical Communicators
 - a. If required, establish communications with the NRC via the FTS and maintain communications until the NRC determines it is no longer necessary. (Refer to appropriate Attachment of AP-0711, "Communications Systems", for usage and numbers)
 - b. If DE&S support is determined to be necessary by the Incident Director, refer to OP-Memo 2E-4 Att. B for DE&S contact numbers.
2. TSC Log Book Keeper
 - a. Log all significant events and activities that take place throughout the emergency.
 - b. Keep a log of decisions made by the Incident Director.
 - c. Prompt the Incident Director to hold briefings with the TSC staff, as necessary.
 - d. Assist the Incident Director as requested.
3. Plant Status Board Keeper
 - a. Review and update the plant status board as information or changes warrant.
 - b. Inform the Incident Director as significant changes in status board information are noted.

FINAL CONDITIONS

1. The emergency has been terminated.
2. All documentation generated has been forwarded to the Incident Director.
- | 3. Initiate AP-0227 for any identified discrepancies. [4]

TEAM BRIEFING/DEBRIEFING

WORK LOCATION		
BRIEF DESCRIPTION OF WORK TO BE PERFORMED		
TEAM MEMBERS		

COMPLETE OF CHECK APPROPRIATE BOXES:

WORK CONTROLS	Procedures Used:		
	Switching/Tagging Order		
	Lifted Leads, Jumpers, Mechanical By-Passes		
	Other:		
COMMUNICATIONS	Report To:		Using
			Gaitronics
	Control Room		Telephone
	TSC		Radio
RWP REQUIRED (Circle One) YES NO			

TIME DISPATCHED:	TIME RETURNED:
BRIEF DESCRIPTION OF WORK COMPLETED:	
OBSERVED ABNORMAL RADIOLOGICAL AND OTHER PERSONAL HAZARDS:	

TECHNICAL RESPONSE COORDINATOR: _____ TIME: _____

Proc. No. AP-3425
Rev. No. 8
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EMERGENCY EQUIPMENT READINESS CHECK

SCOPE

To ensure that radiological emergency equipment is periodically inventoried and maintained in an operable condition at all emergency response facilities.

ENCLOSURES

AP-3425 - Pgs. 1-3
APF-3425.1 - Pg. 1 - Rev. 8
APF-3425.2 - Pg. 1 - Rev. 8
Attachment A - Pgs. 1-5
Attachment B - Pgs. 1
Attachment C - Pgs. 1-3

REFERENCE(S)

1. Yankee Plant Defueled Emergency Plan.
2. AP-0227, Condition Reporting, Investigation and Self Assessment"

DISCUSSION

The emergency equipment maintained in and near the Control Room (CR), Technical Support Center (TSC), and Gatehouse will be inventoried and inspected using this procedure. This procedure requires completion of a check of all emergency equipment as well as an operational inspection of all battery-powered equipment.

Each Emergency Response Facility (ERF) has emergency kits containing the necessary emergency equipment to support specific emergency response actions. These kits are secured with an easily removed seal that provides a method of verifying that the kit has not been opened since the last inventory. Provided that the seal remains unbroken, any of those items requiring frequent checks need only be inventoried and checked quarterly (e.g., portable survey meters, dosimetry). Other items (e.g., protective clothing, expendable supplies) need only be inventoried annually.

Radiation Protection personnel will normally be assigned to complete all attachments each calendar quarter. A status report of the emergency equipment will be made by completing and submitting this entire procedure to the Emergency Plan Coordinator (EPC). The EPC will generate a Condition Report for any identified discrepancies. [2] The EPC or designee will be responsible for ensuring that all discrepancies are addressed.

PRECAUTIONS

None.

PREREQUISITES

1. All affected emergency equipment will be checked for readiness within ten working days following the return to normal operation after an emergency activation or completion of an exercise/drill.
2. All equipment in a kit will be checked and inventoried if the equipment has been used or if the seal on the kit is found to be broken or changed since the last inventory.
3. Notify the Emergency Room Nurse Supervisor at least one day prior to conducting equipment surveillance at the North Adams Regional Hospital.

PROCEDURE

1. If required, then obtain replacement thermoluminescent dosimeters (TLDs) for the ERFs per APF-3425.1.
2. If required, then obtain replacement direct reading dosimeters as required per the dosimetry change out schedule.
3. Obtain a check source to complete Attachment C.
4. Obtain several spare charcoal cartridges and paper filters for locations where air samplers are maintained.
5. Obtain a copy of the following procedures:
 - a. DP-8521, "Operation of the Eberline AMS-3 Beta Continuous Air Monitor"
 - b. DP-8575, "Calibration of the Eberline Beta Continuous Air Monitor, Model AMS-3"
6. Complete each attachment

NOTE: If the serial number of a kit seal is unchanged since the last inventory, and the seal is unbroken, kit inventories need only be completed annually.

- a. Check kit seal serial numbers against the numbers recorded on the previously completed procedure.
 - 1) If the seal has been changed or is broken, complete the kit inventory.

- 2) If the seal has not been changed and is unbroken, and the kit inventory has been completed within the last year, write "inventory not required" in the margin.
 - b. For each item checked, indicate its AS FOUND status.
 - c. Remove the batteries from flashlights and flashers after completing operational checks.
 - d. Replace batteries annually or after extended use.
7. Record discrepancies on APF-3425.2, "Emergency Equipment Discrepancies and Corrective Actions". If a discrepancy can be corrected easily, make the correction and record the corrective action on APF-3425.2.
8. Forward the completed procedure to the designated EPC.
9. If required, then the EPC shall generate a Condition Report [2] based on the completed APF-3425.2.

FINAL CONDITIONS

1. The completed procedure has been forwarded to the EPC.
2. Adequate equipment is available to meet emergency contingencies.

THERMOLUMINESCENT DOSIMETERS (TLDs)

Facility (Location/Type)	# For Use	# Controls	Total
Control Room (Storage Cabinet)			
Panasonic TLDs	5	3	8
Extremity (Vinton) TLDs	3	3	6
Gatehouse (Gatehouse Drawer)	5	3	8
North Adams Regional Hospital			
Panasonic TLDs	10	3	13
Extremity TLDs	10	3	13
Totals	33	15	48

ATTACHMENT A

CONTROL ROOM/TECHNICAL SUPPORT CENTER

1. If applicable, change out the following:

a. TLDs (Panasonic and Vinton) _____

b. Direct reading dosimeters _____

2. Inventory the items in the Emergency Equipment Kit:

Items	Minimum Quantity	Number Available
Dosimeter charger	1	
GM frisker with probe	1	
Air Sampling Kit:		
• 110 VAC air sample pump	1	
• Particulate filters and envelopes	20 ea.	
• Charcoal cartridges	10	
• Tweezers	1	
• Large/Small ziplock bags	10 ea.	
Protective clothing kits: (in sealed bags outside locker)	6	
• Coveralls	2 Pair	
• Headcover	1	
• Plastic shoe covers	1 Pair	
• Rubber shoe covers	1 Pair	
• Cotton gloves	2 Pair	
• Rubber gloves	1 Pair	
Direct reading dosimeters	6	

Items	Minimum Quantity	Number Available
TLDS (including controls)		
• Panasonic	8	
• Extremity (Vinton)	6	

3. Inspect and test the items in the Emergency Equipment Kit.

ITEMS	
Dosimeter chargers (Sat/Unsat)	
GM frisker	
• Battery check OK? (Y/N)	
• Source check OK? (Y/N)	
• TEST mode check OK? (Y/N/NA)	
• Alarm check OK? (Y/N)	
• Calibration due date	
• YAEC or serial number	
• On charge? (Y/N)	
Direct reading dosimeters calibration due date	
TLDS replacement due date	
110 VAC air sampler:	
• Operability check	
• Calibration due date	
New seal numbers	

4. Inspect and test the items in the Control Room/TSC Storage Area:

ITEMS	RESULTS
Continuous airborne radiation monitor: <ul style="list-style-type: none"> • Operational check (Sat/Unsat) • Calibration due date • A current copy of AMS-3 Activity Concentration graph (DPF-8575.2) is affixed to the AMS-3 unit. 	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div>

5. Inventory the items in each Monitoring Team kit located in the Control Room/TSC Storage Area:

ITEMS	MINIMUM QUANTITY	NUMBER AVAILABLE	
		Red	White
Portable survey meter	1		
GM frisker with probe	1		
Air Sampling Kit: <ul style="list-style-type: none"> • 12 V dc sampler pump • Particulate filters and envelopes • Charcoal cartridges • Tweezers • Small/large ziplock bags 	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div> 1 20 ea. 10 1 10 ea.	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div>	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div>
Direct reading dosimeters: <ul style="list-style-type: none"> • Normal range 	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div> 2	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div>	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div>
Dosimeter charger	1		
Protective clothing bags:	2		
<ul style="list-style-type: none"> • Cotton gloves 	2 Pair		
<ul style="list-style-type: none"> • Rubber gloves 	2 Pair		
<ul style="list-style-type: none"> • Plastic shoe covers 	2 Pair		

ITEMS	MINIMUM QUANTITY	NUMBER AVAILABLE	
		Red	White
• Paper coveralls	1 Pair		
• Paper headcover	1		
• Cloth headcover	1		
Survey map book	1		
Pencils/paper pads	2		
Flashlight and batteries	1		

6. Inspect and test the items in each Monitoring Team kit:

Items	Red	White
Portable survey meter:		
• Battery check OK? (Y/N)		
• Source check OK? (Y/N)		
• Calibration due date		
• YAEC or serial number		
Inspect and test the GM frisker:		
• Battery check OK? (Y/N)		
• Source check OK? (Y/N)		
• TEST mode check OK? (Y/N)		
• Alarm check OK? (Y/N)		
• Calibration due date		
• YAEC or serial number		
• On charge? (Y/N)		

Items	Red	White
Air sampler: <ul style="list-style-type: none">• Operability check (Sat/Unsat)• Calibration due date		
Direct reading dosimeter calibration due dates: <ul style="list-style-type: none">• Normal range		
Flashlight operational? (Y/N)		
Dosimeter charger operability (Sat/Unsat)		
New seal number		

7. Affix a new seal on each kit and record the seal serial number above.

Remarks:

Completed by: _____ Date _____

Reviewed by: _____ Date _____

E-Plan Coordinator

ATTACHMENT B

GATEHOUSE

1. If applicable, change out the direct reading dosimeters. _____
2. Inventory the items in the Tactical Operations Center (TOC)/Lead Security Officer's (LSO) Office:

ITEMS	MINIMUM QUANTITY	NUMBER AVAILABLE
Direct reading dosimeters	12	
Dosimeter charger	1	

3. Inspect and test the items in the TOC/LSO's Office:

ITEMS	RESULTS
Direct reading dosimeters calibration due date	
Dosimeter charger operability (Sat/Unsat)	

Remarks:

Completed by: _____ Date _____

Reviewed by: _____ Date _____

E-Plan Coordinator

ATTACHMENT C

NORTH ADAMS REGIONAL HOSPITAL

1. Ensure the Emergency Room Nurse Manager has been notified prior to conducting the equipment surveillance. _____
2. Obtain the keys for the Code Magenta/Nuclear Disaster room from the Triage/Emergency Room Nurse. _____
3. If applicable, change out the following:
 - a. TLDs (Panasonic and Vinton) _____
 - b. Direct reading dosimeters _____
4. Inventory the items in the room:

ITEMS	MINIMUM QUANTITY	NUMBER AVAILABLE
Portable survey meter	1	
GM frisker with probe	2	
Direct reading dosimeters	6	
TLDs (including controls)		
• Panasonic	13	
• Extremity (Vinton)	13	
Dosimeter charger	1	
Hose with shower head and valve	1	
Decontamination rig		
• Table top with side panels	1	
• Stretcher	1	
• Drain hose	1	
• Liquid drain container	1	

ITEMS	MINIMUM QUANTITY	NUMBER AVAILABLE
Radiological signs with inserts • Caution - radiation area • Caution - radioactive material	5	
	5	
Patient plastic sheet (4-5 mils)	1	
Herculite for floor covering (precut)	1	
Masking Tape (2" roll)	2	
Duct Tape (roll)	1	
Poly bags • Large • Small	20	
	20	
Roll of Absorbent paper	1	
Radiological barrier tape (roll)	2	
Scrub brushes	4	
Step-off pad	2	
Radioactive Material Stickers	25	
Sample label tags (roll)	1	
Paper pads	4	
Pencils (box)	1	
Protective clothing • Tall plastic shoe covers (pair) • Safety glasses • Plastic aprons	12	
	3	
	3	

5. Inspect and test the items in the cabinet:

ITEMS	RESULTS
Portable survey meter: <ul style="list-style-type: none"> • Battery check OK? (Y/N) • Source check OK? (Y/N) • Calibration due date • YAEC or serial number 	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div>
GM frisker: <ul style="list-style-type: none"> • Battery check OK? (Y/N) • Source check OK? (Y/N) • TEST mode OK: (Y/N/NA) • Alarm check OK? (Y/N) • Calibration due date • YAEC or serial number • On charge? (Y/N) 	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div> <div style="height: 20px; width: 100%;"></div>
Direct reading dosimeters calibration due date	
TLDs replacement date	
Dosimeter charger operability check (Sat/Unsat)	

6. Return the cabinet key to the Triage/Emergency Room Nurse.

Remarks: _____

Completed by: _____ Date _____

Reviewed by: _____ Date _____

E-Plan Coordinator

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TECHNICAL SUPPORT CENTER (TSC) READINESS CHECK

SCOPE

To ensure the Technical Support Center (TSC) is periodically checked to verify that the facility is in an operable condition and to test its communications equipment and systems.

ENCLOSURES

AP-3426 - Pg. 1
Attachment A - Pgs. 1-3
Attachment B - Pgs. 1-2
APF-3426.1 - Pg. 1 - Rev. 14
APF-3426.2 - Pg. 1 - Rev. 14

REFERENCES

1. Yankee Plant Defueled Emergency Plan
2. AP-0711, "Communications Systems"
3. DP-2005, "Operations Department Surveillance Schedule"

DISCUSSION

The Technical Support Center's (TSC) communication equipment shall be tested monthly utilizing the appropriate attachment. An inspection and inventory of the TSC shall be performed quarterly. These activities shall be performed as scheduled by Reference 3.

PRECAUTIONS

None.

PREREQUISITES

See individual attachments.

PROCEDURE

See individual attachments.

FINAL CONDITIONS

See individual attachments.

ATTACHMENT A

MONTHLY COMMUNICATION TESTS AT THE TSC

PREREQUISITE

1. Notify the Operations Shift Supervisor prior to conducting communication tests.
-

PROCEDURE

A. TELEPHONE SYSTEMS

1. Plant (AT&T Definity)

NOTE: Operability of plant extensions routinely used in the TSC may be verified by the office residents.

- a. Ring the following TSC extensions from Ext. 2233:

- | | | | | | |
|---|------|--------------------------|----|--------------------------|------|
| • | 2252 | <input type="checkbox"/> | OP | <input type="checkbox"/> | INOP |
| • | 2232 | <input type="checkbox"/> | OP | <input type="checkbox"/> | INOP |
-
-

2. Verizon

- a. Check for the presence of the following power fail telephones:

- | | | |
|---|----------------------------|-------|
| • | (SAS) 424-5261 (Ext. 2923) | _____ |
| • | (TSC) 424-5262 (Ext. 2232) | _____ |
| • | (CR) 424-5263 (Ext. 2302) | _____ |

b. Check the operation of the following direct outside lines: (listen for dial tone, dial 424-5261 to talk to the plant phone operator).

- 424-5395 (Ops Station) OP INOP _____
- 424-5473 (SS Desk) OP INOP _____
- 424-5387 (TSC) OP INOP _____
- 424-5455 (Gatehouse location) OP INOP _____

3. Federal Telecommunication System (FTS)

a. Notify the Control Room that the FTS telephone will be tested from the TSC. _____

b. From a FTS telephone call the NRC by dialing 301-816-5100. State the following:

- (1) Name
- (2) Location
- (3) Fact that telephone is being tested
- (4) Request a call back to the telephone being tested (answer from the FTS phone)

Control Room

- FTS (700-661-5251) OP INOP _____

TSC

- FTS (700-661-5251) OP INOP _____

B. FACSIMILE MACHINE

NOTE: Fax machine may be set up in Control Room at extension 2358 or in the Technical Support Center at extension 2252.

1. Send a test sheet from one machine to another (Refer to transmitting instructions at the machine) _____

2. Check the reproduction quality of the receiving machine:

OP INOP

C. Document results of this attachment on APF-3426.1, "TSC Discrepancies and Corrective Actions." _____

D. If a communications discrepancy is found, then complete APF-0711.1, "Communications Problem Report," and forward it to the Plant Communications Coordinator. _____

E. Forward the completed procedure to Operations Management. _____

FINAL CONDITIONS

1. The completed procedure has been returned to Operations Management. _____

2. If applicable, the discrepancies found in the completion of this attachment have been corrected or forwarded to the Plant Communications Coordinator for corrective action. _____

3. The TSC is adequately equipped and functional to meet emergency contingencies. _____

Remarks:

Completed by: _____ Date/Time _____

Reviewed by: _____ Date/Time _____
Shift Supervisor

Reviewed by: _____ Date _____
Operations Management

Reviewed by: _____ Date _____
E-Plan Coordinator

ATTACHMENT B

QUARTERLY INVENTORY AND INSPECTION OF THE TSC

PREREQUISITE

1. Notify the Operations Shift Supervisor prior to conducting communication tests.

PROCEDURE

A. EQUIPMENT INVENTORY

1. Clock
 - Conventional (1) _____
2. Map
 - Site Plot Plan (Drawing No. 9699-FY-6A) _____
3. Blank White Status Board _____

B. DOCUMENTS INVENTORY

NOTE: The Site Services Department should be able to assist in determining the latest versions of necessary documents.

1. Complete APF-3426.2, "TSC Documents Reference List." Use this form to verify that the latest versions of required procedures, forms, and lists are available in the TSC. Also verify that the working copy files are of the latest versions.
2. Books
 - Defueled Emergency Plan _____
 - Defueled Implementing Procedures _____
 - DE&S Emergency Support Plan (CC No. 42) _____
 - Off-Site Dose Calculation Manual (ODCM) (CC No. 15) _____
 - TSC Log Book _____
 - Procedures for Admission and Management of Radioactively Contaminated Patients at North Adams Regional Hospital _____
 - Op-Memos _____
 - Plant Procedures (CC No. 4) _____
 - Defueled Technical Specifications _____
 - FSAR (CC No. 2-4) _____
 - Defueled Systems Training Manual (CC No. 3) _____
 - State of Vermont Notification Manual _____

C. Document results of this attachment on APF-3426.1, "TSC Discrepancies and Corrective Actions." _____

D. Forward the completed procedure to Operations Management. _____

FINAL CONDITIONS

1. The latest versions of procedures, forms, and lists are in place. _____

| 2. The completed procedure has been returned to Operations Management. _____

3. If applicable, the discrepancies found in the completion of this attachment have been corrected. _____

4. The TSC is adequately equipped and functional to meet emergency contingencies. _____

Remarks:

Completed by: _____ Date/Time

Reviewed by: _____ Date
Shift Supervisor

| Reviewed by: _____ Date
Operations Management

| Reviewed by: _____ Date
E-Plan Coordinator

TSC DOCUMENTS REFERENCE LIST

DOCUMENT	WORKING FILES	REVISION OR DATE
OP-3300*		
OP-3305*		
OP-3315*		
OP-3324*		
OP-3343*		
OP-3344*		
AP-0711*		
AP-0806*		
AP-0809*		
OP-4952*		
OP-8041*		
OP-8415*		
OP-8421*		
OP-Memo 2E-4*		
OP-Memo 2E-5*		
OP-Memo 2E-6*		
YNPS In-Plant Telephone Listing*		
DE&S (Marlboro) Telephone Listing*		
Off-Site Dose Calculation Manual		
DE&S Emergency Support Plan		
Defueled Emergency Plan		
Defueled E-Plan Implementing Procedures		
Procedures for Admission and Management of Radioactively Contaminated Patients at North Adams Regional Hospital		
Plant Procedures Manual		
Defueled Technical Specification		
FSAR		
Defueled Training Manual		
State of Vermont Notification Manual		

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EMERGENCY PREPAREDNESS TRAINING

SCOPE

This procedure establishes an initial qualification program for employees assigned to a new specific emergency function and an annual requalification training program for the emergency response organization to maintain proficiency.

This procedure also establishes a training program for support personnel whose assistance may be required in the event of an emergency at the plant and provides training program flexibility to meet individual training needs.

ENCLOSURES

AP-3450 - Pgs. 1-4
Attachment A - Pg. 1

REFERENCES

1. Yankee Plant Defueled Emergency Plan
2. OP-Memo 2E-5, "Emergency Response Organization (ERO) Assignments"

DEFINITIONS

1. Initial Training - All Emergency Preparedness (EP) training required for assignment to an ERO position.
2. Emergency Response Organization (ERO) - All qualified individuals identified in Reference [2] who may respond to an emergency.
3. Self-Study Lesson - A concise presentation of information designed to achieve lesson objectives without an instructor.
4. Requalification Training - Training accomplished annually for continued assignment to an ERO position which may include; feedback and changes from the last exercise, tabletop training sessions, ERF mini-scenarios, and pre-exercise drills. This Training may be in the form of Self Study Read and Sign modules.

DISCUSSION

The effectiveness with which individuals respond in emergency situations is dependent in part on their training.

ERO personnel will receive required initial EP training when they are first assigned or reassigned an ERO function. In addition, all ERO personnel will receive requalification training annually.

| Types of training may include, but need not be limited to classroom training, walkthroughs of assigned emergency response facilities, self-study and evaluation training packages, and drills and exercises which will demonstrate the level of preparedness.

| The Safety Oversight Manager (SOM) shall have the overall responsibility to ensure this training program is implemented.

PRECAUTIONS

None

PREREQUISITES

1. Personnel should not be assigned emergency response functions on-site, unless they have completed and maintained all requirements for unescorted access to the protected area.
2. OP-Memo 2E-5 provides the record of personnel qualified as members of the emergency response organization.

PROCEDURE

A. Selection Criteria

1. The ERO member meets applicable prerequisites.
- | 2. Initial EP general and position specific training have been completed or requalification training is completed and current.

B. ERO Maintenance

- | 1. The Safety Oversight Manager (SOM) or Emergency Plan Coordinator (EPC) shall, on at least a semiannual basis, review OP-Memo 2E-5 to ensure ERO qualifications of personnel are current.
- | 2. The SOM or EPC shall forward the revision to OP-Memo 2E-5 for approval and issuance.

3. The SOM or EPC shall notify new ERO personnel of assignment when the revision to OP-Memo 2E-5 is issued.

C. Training Requirements

1. The Plant Training Coordinator (TC) will provide and track self study modules for all ERO personnel requiring qualification in the training topics listed in Attachment A.

NOTE: The Security Shift Supervisor and the Security Force will be trained on the Defueled Emergency Plan in accordance with the Security Training Program.

2. Support organizations whose assistance may be required in the event of an emergency will be invited to participate in training annually. In most instances, letters of agreement specify contractual arrangements for provision of training.

a. Medical Support Personnel (hospital and ambulance staff)

- (1) Local medical support personnel will be offered the opportunity to attend radiological/medical emergency training annually.

NOTE: The offer to provide medical support personnel with training will be formally documented.

- (2) Additionally, selected local medical support personnel will be invited to participate in one or more medical drills with the plant annually.

- (3) The Emergency Plan Coordinator is responsible for ensuring that this training is conducted.

b. Local Fire Department

- (1) The local fire departments will be invited to participate in training annually.

- (2) The local fire departments will be invited to participate in at least one fire drill with the plant fire brigade annually.

- (3) The Fire Protection Coordinator is responsible for ensuring that this training is conducted.

D. Program Administration

1. The Safety Oversight Manager or designee, is responsible for providing assistance in the development and implementation of the Yankee EP Training Program.
2. The Plant Training Coordinator (TC) or designee is responsible for:
 - a. Administering the Yankee EP Training Program.
 - b. Scheduling personnel for training, tracking and rescheduling training as necessary.
 - c. Approving all training materials.
 - d. Ensuring that the records of training accomplished and training due are maintained.
 - e. Arranging for instructors and/or providing Read and Sign Self Study modules.
3. The Safety Oversight Manager or EPC is responsible for performing a technical review of all training materials.

FINAL CONDITIONS

1. Emergency response personnel have been trained to a standard based on the requirements of Section 12 of Reference [1].
2. The ERO assignments list has been reviewed, revised, and approved.
3. All records and supporting documentation are turned over to the Plant Training Coordinator for filing.

ATTACHMENT A

TRAINING TOPICS

1. Overview of the Yankee Plant Defueled Emergency Plan
- | 2. Technical Support Center (TSC) Activation and Operations; Position Specific Walkthrough Training

**RESPONSIBILITIES FOR MAINTAINING AND IMPLEMENTING
THE EMERGENCY PREPAREDNESS PROGRAM FOR YNPS**

SCOPE

This procedure delineates the responsibilities for maintaining and implementing the Emergency Preparedness (EP) Program for the Yankee Nuclear Power Station (YNPS).

ENCLOSURES

AP-3451 - Pg. 1
Attachment A - Pgs. 1-4

REFERENCES

1. DE&S Emergency Support Plan
2. YNPS Defueled Emergency Plan
3. YNPS Emergency Plan Implementing Procedures
4. Op-Memos 2E-4, 2E-5 & 2E-6
5. YNPS Technical Specifications

DISCUSSION

Maintaining the EP Program is necessary so the Defueled Emergency Plan and Implementing Procedures can be effectively executed during an emergency response.

PRECAUTIONS

None

PREREQUISITES

1. The Responsible Individuals listed in Attachment A have been assigned and are aware of their responsibilities.

PROCEDURE

The purpose of the procedure is to provide a reference for those individuals responsible for maintaining and implementing the Yankee Emergency Preparedness Program.

Attachment A identifies the individuals or groups with maintenance and implementation responsibilities. Specific procedures or documents to be followed in order to satisfy these responsibilities are also listed in Attachment A.

ATTACHMENT A

Summary of Organizational Responsibilities for the Maintenance and Implementation of the Yankee Emergency Preparedness Program

<u>ACTIVITIES</u>	<u>REFERENCE</u>	<u>RESPONSIBLE INDIVIDUAL</u>	<u>EXECUTING DOCUMENT</u>
A. <u>ORGANIZATION AND ADMINISTRATION</u>			
1. Overall management and company authority for all emergency preparedness functions.	(2)	Safety Oversight Manager (SOM)	Defueled Emergency Plan
2. Maintain roster of qualified individuals for each Emergency Response Organization (ERO) position in OP-Memo 2E-5. Update on a semi-annual basis.	(2)	Emergency Plan Coordinator (EPC)	OP-Memo 2E-5
3. Maintain the capability to account for all individuals on-site at the time of an emergency and ascertain the names of missing individuals.	(2), (3)	Security Shift Supervisor	OP-3344
4. Track and correct identified Emergency Response Program deficiencies.	(2)	EPC	PORC Open Item List and Condition Report Process
5. Audit the Emergency Preparedness Program at least once every calendar year.	(2)	QA Department Manager	Defueled Emergency Plan
6. Validate and update Letters of Agreement (annually).	(2)	SOM	AP-3400
7. Meet annually with representatives of Massachusetts Emergency Management Agency, Massachusetts Department of Public Health, Vermont Emergency Management Agency, and Vermont Department of Public Health to review the Defueled Emergency Plan.	(2)	SOM	Memorandum of Understanding

B. PLANS AND PROCEDURES

- | | | | | |
|----|--|-----|---|------------------------------|
| 1. | Review and update the Emergency Plan annually, as a minimum. | (2) | SOM | AP-3452 |
| 2. | Review and revise the Emergency Plan Implementing Procedures biennially and as-needed to incorporate changes resulting from drills and exercises, or changes in facilities or the environment. | (2) | EPC | AP-0001 |
| 3. | Verify accuracy of names, titles, and phone numbers in the E-Plan OP-Memos 2E-4 and 2E-6. Review and update telephone numbers semi-annually. | (2) | EPC | OP Memo 2E-4
OP Memo 2E-6 |
| 4. | Maintain the North Adams Regional Hospital Plan. | (2) | SOM | Defueled Emergency Plan |
| 5. | Maintain and review, at least annually, the Mutual Assistance Agreement. | (1) | Contingency Management Support Group (CMSG) Manager | DE&S Emergency Support Plan |
| 6. | Emergency response exercise scenario preparation, review, and approval. | (3) | SOM | AP-3400 |
| 7. | Maintain and revise DE&S Emergency Support Plan and Procedures. | | CMSG | DE&S Emergency Support Plan |

C. TRAINING

- | | | | | |
|----|---|-----|----------------------|---------|
| 1. | Arrange for instructors. | (3) | EPC | AP-3450 |
| 2. | Review, revise, and approve formal lesson plans for each category of training. | (3) | EPC | AP-3450 |
| 3. | Ensure training or retraining is completed at least annually for Emergency Response Organization (ERO) members. | (3) | EPC | AP-3450 |
| 4. | Maintain ERO personnel required training records. | (3) | Training Coordinator | AP-3450 |

5. Offer annual training to support organizations: | (2), (3) AP-3450
- a. Local emergency medical services. EPC
 - b. Local fire fighting services. Fire Protection Coordinator (FPC)

D. FACILITIES, EQUIPMENT, AND RESOURCES

1. Maintain, revise, and repair (as necessary) on-site facilities (TSC/CR) and equipment in a ready status. | (2), (3) EPC AP-3425 and 3426
2. Inventory and maintain operability of the off-site medical facility emergency response equipment. | (3) EPC AP-3425
3. Maintain arrangements for:
- a. The services of physicians qualified to handle radiation emergencies. | (2) SOM Letters of Agreement
 - b. The transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the plant. | (2) SOM Defueled Emergency Plan
 - c. Treatment of contaminated injured individuals to treatment facilities outside of the plant. | (2) SOM Defueled Emergency Plan
4. Maintain and test (monthly) communications from the on-site facilities to outside emergency response organizations. | (2), (3) EPC AP-3426

E. EXERCISES AND DRILLS

1.	Conduct emergency preparedness exercises annually.	(2)	SOM	AP-3400
a.	Radiation Protection Drill (annually)		EPC	AP-3400
b.	Fire Drills		Fire Protection Coordinator (FPC)	AP-0503
c.	Communication Tests (weekly and monthly)		EPC	AP-0711
d.	Medical Drill (annually)		EPC	AP-3400
e.	Augmentation Drill (annually)		EPC	AP-0711
2.	Provide formal critiques which identify weak or deficient areas that need correction.	(2)	SOM	AP-3400

REVISION PROCESS FOR THE YNPS DEFUELED EMERGENCY PLAN

SCOPE

This procedure delineates the steps necessary to review, revise, and issue revisions to the YNPS Defueled Emergency Plan.

ENCLOSURES

AP-3452 - Pgs. 1-2
Attachment A - Pgs. 1-2
Attachment B - Pg. 1

REFERENCES

1. Memo BYR 99-072, YAEC to NRC, Amendment to YAEC Request for Modification of YNPS Defueled Tech Specs, 11/2/99
2. YNPS Defueled Emergency Plan, Section 12.4
3. 10CFR50.54(q)

DISCUSSION

The YNPS Defueled Emergency Plan outlines the emergency response capabilities of Yankee and is reviewed on an annual basis. Revisions to this plan will be made in accordance with current regulations and guidelines. Proposed changes to the YNPS Defueled Emergency Plan are required to receive an Independent Safety Review and Decommissioning Manager approval.

PRECAUTIONS

None

PREREQUISITES

None

PROCEDURE

1. Revisions to the YNPS Defueled Emergency Plan will address comments from QA Audits, exercise and drill critiques, and reviews. Revisions will be made in the appropriate sections of the plan.
2. The document will be typed, proofread, and the revision will be side barred in the margin.
3. Attachment A, "YNPS Defueled Emergency Plan Change Evaluation Form", and the 10CFR50.54(q) "Decrease in Effectiveness Review" will be completed by the originator.
4. The originator should complete the top portion of Attachment B and combine with Attachment A, the 10CFR50.54(q) review, and the associated plan changes and forward the entire package to the Safety Oversight Manager for review.

NOTE: The determination that the change will not decrease the effectiveness of the plan is documented in Attachment A and its supporting 10CFR50.54(q) "Decrease in Effectiveness Review."

NOTE: If the change is determined to decrease the effectiveness of the plan, the proposed change shall be submitted as specified by 10CFR50.4 for approval by the NRC prior to its implementation.

5. The Safety Oversight Manager or designee will review the package to determine if the proposed change decreases the effectiveness of the YNPS Defueled Emergency Plan and confirm this by signature on Attachment A.
6. The package should then be forwarded to the PORC Secretary for an Independent Safety Review (ISR).
7. The PORC meeting number will be entered on Attachment B.
8. Any revisions made as a result of the ISR will be incorporated by the originator.
9. The document will then be forwarded to the Decommissioning Manager for final approval and signature on Attachment B.
10. The document will be provided to Plant Administration for issuance.
11. Affected emergency plan implementing procedures will be revised, as necessary.

FINAL CONDITIONS

The revised Emergency Plan has been approved and issued.

ATTACHMENT A

YNPS DEFUELED EMERGENCY PLAN CHANGE EVALUATION FORM

Change Number in Progress: _____

Originator: _____ Date: _____

Determination of Effectiveness Reduction:

This proposed change affects the following subject areas of the YNPS Defueled Emergency Plan: (check each topic applicable)

- Normal station operating organization: emergency response staffing levels; staff emergency activation and augmentation; assignment of staff emergency responsibilities.
- Assignment and staffing levels of on-shift emergency response staff; interface between on-site and off-site organizations; corporate site response.
- Arrangements for using off-site assistance organizations; assistance expected from off-site authorities.
- Emergency Classification System, including supporting emergency action levels.
- Initial and follow-up notification of state authorities.
- Emergency Communications Systems and testing.
- Emergency response facilities, equipment and supplies.
- Methods, systems, and equipment for assessing off-site radiological projections.
- Protective actions and equipment for on-site emergency workers; evacuation and accountability for personnel on-site.
- On-site emergency worker radiological exposure control measures and equipment; personnel decontamination equipment and supplies; first aid equipment and supplies.
- Emergency medical treatment and transportation capabilities for on-site personnel.
- Training, drills, and exercise.
- Responsibilities for emergency plan review and update.

For each of the above subject areas checked as affected, provide justification that this proposed change does not reduce the effectiveness of the YNPS Defueled Emergency Plan.

NOTE: Justification is to be in the form of a 10CFR50.54(q) "Decrease in Effectiveness Review."

NOTE: If the proposed change is determined to decrease the effectiveness of the YNPS Defueled Emergency Plan, the proposed change shall be submitted as specified by 10CFR50.4 for NRC approval prior to its implementation.

Conclusion: The proposed change [] will / [] will not decrease the effectiveness of the YNPS Defueled Emergency Plan.

Completed by: _____ Date _____

Reviewed by: _____ Date _____
Safety Oversight Manager

ATTACHMENT B

YNPS DEFUELED EMERGENCY PLAN REVIEW AND APPROVAL FORM

Originator: _____ Date: _____

Change Number in Progress: _____

Summary Description of Change: _____

Independent Safety Review

The proposed change [] will / [] will not decrease the effectiveness of the YNPS Defueled Emergency Plan.

Comments:

PORC Meeting No. _____ Date _____

Approved by: _____ Date _____
Decommissioning Manager

Issued by: _____ Date _____
Administration

Proc. No. OP-3343
Rev. No. 13
Issue Date 10/2000
Review Date 10/2002

RELEASE OF PUBLIC INFORMATION UNDER EMERGENCY CONDITIONS

SCOPE

To establish a policy for the issuance of press releases during emergencies.

ENCLOSURES

OP-3343 - Pgs. 1-2
Attachment A - Pg. 1
Attachment B - Pg. 1

REFERENCES

1. Yankee Plant Defueled Emergency Plan

DISCUSSION

It is the policy of Yankee Atomic Electric Company to allow full disclosure to the news media and public of all plant-related emergency response actions. Yankee's Public Affairs Representative or designated alternate will be responsible for releasing information as outlined below.

PRECAUTIONS

None.

PREREQUISITES

None.

PROCEDURE

- A. Release of Information:
 1. In accordance with emergency notification procedures, the Public Affairs Representative will be notified of any declared emergency classification. If contact cannot be made, the alternate will be notified.
 2. The Public Affairs Representative will report to the plant, or communicate with the Incident Director, and review the emergency conditions.