

NUCLEAR SERVICES ADMINISTRATIVE PROCEDURES

MANUAL

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Rev. No. 0

Date 3/2/82

CORPORATE EMERGENCY PLAN PROCEDURE

NOTIFICATION OF UNUSUAL EVENT

NON-SAFETY RELATED

Prepared: [Signature]

Reviewed: L.R. McKay [Signature] W.E. Elder for T.E. Reeves, Jr.  
Reviewer Section Manager Manager of Quality Assurance

Reviewed/Approved: [Signature]  
Manager of Nuclear Services

Reviewed/Approved: [Signature]  
Assistant Vice President - Nuclear Production

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NOTIFICATION OF UNUSUAL EVENT  
PROCEDURE NO. 6.1

REV. 0

DATE  
3/2/82

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## NOTIFICATION OF UNUSUAL EVENT

### 1.0 PURPOSE

- 1.1 The purpose of this procedure is to define the conditions and actions which are necessary to:
  - 1.1.1 inform MP&L General Office Management of the Unusual Event. (Attachment I)
  - 1.1.2 initiate appropriate emergency response actions to mitigate the condition.
  - 1.1.3 provide instructions which will place the MP&L General Office in a state of readiness in the event of a situation at the plant which may be a cause of concern to plant personnel and/or the public.
- 1.2 This procedure supersedes CEPP-1, Notification of Unusual Event.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

- 2.1.1 Nuclear Production Department Policy and Organization Manual
  - a. 5.2.3.1
  - b. 7.8
- 2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)
  - a. 1.3.7

#### 2.2 Other References

- 2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.2.2 GGNS Units 1 and 2 Emergency Plan
- 2.2.3 Corporate Emergency Plan Procedure, 6.5, Notification and Assignment of Offsite Emergency Organization Positions



2.3 Cross-References

3.0 DEFINITIONS

- 3.1 EAL - Emergency Action Level; the means of classifying emergencies involving fixed nuclear facilities.
- 3.2 On-Call Manager - member of GGNS management, who has responsibility for assuming the role of Emergency Director in the event of an emergency at GGNS.

4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Assistant Vice President - Nuclear Production to assume the role of OffSite Emergency Coordinator and implement this procedure if notified that an Unusual Event has been declared.
- 4.2 In the event the Assistant Vice President - Nuclear Production, is unavailable, the line of succession for those duties described in 4.1 is as follows: Manager of Nuclear Services, Manager of Safety and Licensing.
- 4.3 It is the responsibility of those individuals whose titles appear in 4.1 and 4.2 to ensure that at least one of them will be available at all times to assume the role of Offsite Emergency Coordinator. A duty roster is to be prepared to address this need.
- 4.4 It is the responsibility of the Vice President of Informational Services to ensure that someone from his organization will be available to assume his duties as described in this procedure.

5.0 DETAILS

5.1 Instructions/Checklist

- 5.1.1 The Off-Site Emergency Coordinator Initial/Date  
shall:
  - a. Document in the Offsite Emergency Coordinator's Logbook that an Unusual Event has been declared and await further information on the event, if appropriate. \_\_\_\_\_
  - b. Notify the Senior Vice President - Nuclear, or his designee, of the Unusual Event (Attachment II). \_\_\_\_\_



- |  | <u>Initial/Date</u> |
|--|---------------------|
| c. Notify the Vice President of Informational Services, or his designee, of the Unusual Event (Attachment II). | _____               |
| d. Notify the Chief Executive Officer, or his designee, of the Unusual Event (Attachment II).                  | _____               |
| e. Notify additional personnel as appropriate (Attachment II).   | _____               |
| f. Verify reports are initiated on the Unusual Event.  | _____               |
| g. Stand by to escalate or close out emergency.  | _____               |

5.1.2 The Vice President of Informational Services, or his designee, shall:

- |  |       |
|--|-------|
| a. Assume the role of Corporate Information Officer.   | _____ |
| b. Approve information prepared for the news media prior to its release.   | _____ |
| c. Issue press releases or authorize the Public Relations Assistant to the Plant Manager to do so.   | _____ |
| d. In the event time does not permit the actions specified in 5.1.2.c., the Corporate Information Officer will be informed by the Public Relations Assistant to the Plant Manager as soon as possible of any press release approved by the GGNS On-Call Manager. | _____ |

6.0 APPENDICES

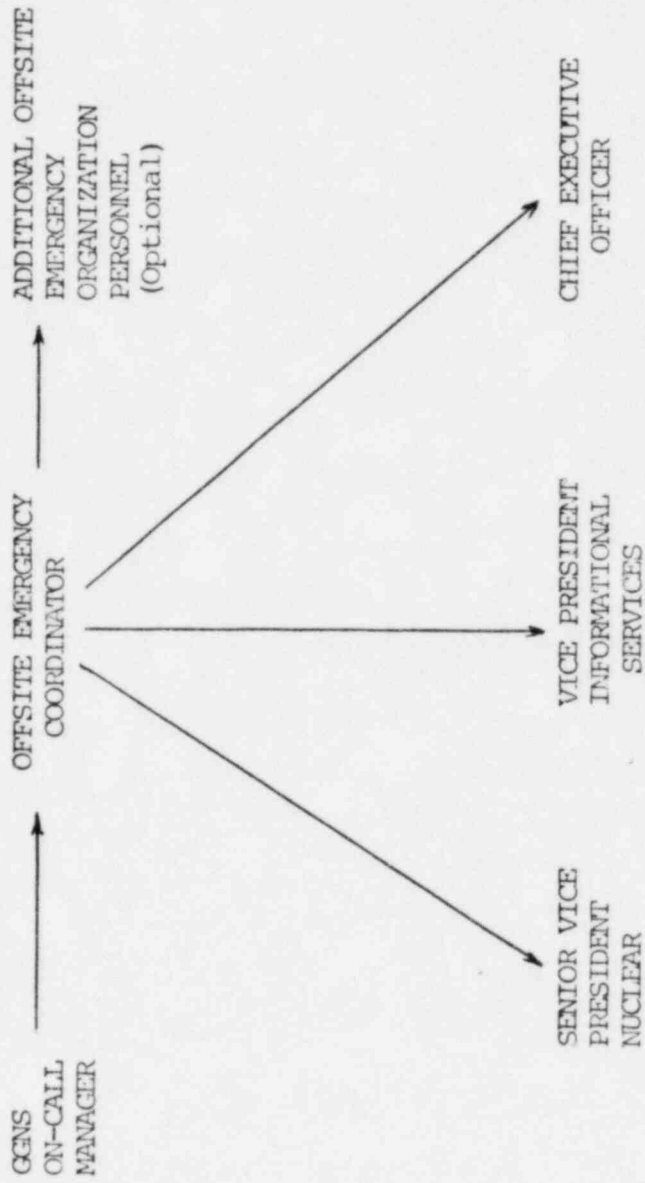
6.1 Attachment I - Unusual Event Offsite Emergency Organization Notification Flow Chart

6.2 Attachment II- Unusual Event Notification Checklist



UNUSUAL EVENT

OFF-SITE EMERGENCY ORGANIZATION NOTIFICATION



NOTIFICATION OF UNUSUAL EVENT  
ATTACHMENT I to Procedure 6.1

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3/2/82

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NOTIFICATION CHECKLIST  
Unusual Event

Time  
Notified  
(24-hour clock)

J. P. McGaughy, or Alternate:

- |        |                |     |     |       |
|--------|----------------|-----|-----|-------|
| 1.     | N. L. Stampley | (O) | (H) | _____ |
| 2. (a) | A. McKeigney   | (O) | (H) | _____ |
|        | (b) L. Hogue   | (O) | (H) | _____ |
| 3.     | D. C. Lutken   | (O) | (H) | _____ |
| 4.     | _____          | (O) | (H) | _____ |



Proc. No. 6.2  
Rev. No. 1  
Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE

ALERT

NON-SAFETY RELATED

Prepared: [Signature]  
Reviewed: [Signature] Reviewer  
[Signature] Section Manager  
[Signature] W.E. Edge for T.E. Reeves, Jr. Manager of Quality Assurance  
Reviewed/Approved: [Signature] Manager of Nuclear Services  
Reviewed/Approved: [Signature] Assistant Vice President - Nuclear Production

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ALERT

1.0 PURPOSE

- 1.1 The purpose of this procedure is to define the conditions and actions which are necessary to:
  - 1.1.1 inform MP&L General Office management of an Alert at GGNS or if an Unusual Event escalates to an Alert (Attachments I and II).
  - 1.1.2 initiate appropriate emergency response actions to mitigate the emergency condition.
  - 1.1.3 provide instructions which will place the General Office in a state of readiness in the event that the emergency condition exists.
- 1.2 This procedure supersedes CEPP-2, Alert.

2.0 REFERENCES AND CROSS-REFERENCES

2.1 Commitments

- 2.1.1 Nuclear Production Department Policy and Organization Manual
  - a. 5.2.3.1
  - b. 7.8
- 2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)
  - a. 1.3.7

2.2 Other References

- 2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.2.2 NUREG-0696, 2/81, Functional Criteria for Emergency Response Facilities
- 2.2.3 GGNS Units 1 and 2 Emergency Plan
- 2.2.4 Corporate Emergency Plan Procedures
  - a. 6.5, Notification and Assignment of Offsite Emergency Organization Positions



b. 6.8, Documentation and Record Keeping

2.3 Cross-References

3.0 DEFINITIONS

- 3.1 CEC - Corporate Emergency Center; located in the Electric Building basement, Jackson.
- 3.2 CHL - Corporate Hot Line; a dedicated telephone line connecting the EOF and CEC.
- 3.3 ECL - Executive Conference Line; a direct telephone line connecting GGNS management with the CEC and EOF.
- 3.4 EOF - Near-Site Emergency Operations Facility.
- 3.5 INPO - Institute of Nuclear Power Operations
- 3.6 On-Call Manager - member of GGNS Management who has responsibility for assuming role of Emergency Director in the event of an emergency at GGNS.

4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Assistant Vice President - Nuclear Production, to assume the role of Offsite Emergency Coordinator and implement this procedure when notified that an Alert has been declared.
- 4.2 In the event the Assistant Vice President - Nuclear Production is unavailable, the line of succession for those duties described in 4.1 is as follows: Manager of Nuclear Services, Manager of Safety and Licensing.
- 4.3 It is the responsibility of those individuals whose titles appear in 4.1 and 4.2 to ensure that at least one of them will be available at all times to assume the role of Offsite Emergency Coordinator. A duty roster is to be prepared to address this need.
- 4.4 It is the responsibility of the Offsite Emergency Coordinator to notify personnel as specified in this procedure (Attachment I).



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- 4.5 It is the responsibility of the Vice President of Informational Services to ensure that a member of his staff will be available to assume those responsibilities assigned him in this procedure, in the event he is unable to do so.
- 4.6 It is the responsibility of the Offsite Emergency Coordinator to activate, as specified in this procedure, the CEC located in the Electric Building basement in Jackson, and to ensure that necessary personnel report there to gather information on the emergency.
- 4.7 It is the responsibility of the Offsite Emergency Coordinator to decide if the EOF should be manned during the Alert.

5.0 DETAILS

5.1 Instructions/Checklist

	<u>Initial/Date</u>
5.1.1 <u>The Offsite Emergency Coordinator shall:</u>	
a. Document in the Offsite Emergency Coordinator's Logbook that an Alert has been declared.	_____
b. Notify the Senior Vice President - Nuclear, or his designee, of the Alert (Attachment II).	_____
c. Notify the Assistant to the Offsite Emergency Coordinator (Attachment II).	_____
d. Activate the CEC and instruct General Office personnel to report there to gather information and discuss the emergency, as appropriate (Attachment III).	_____
e. Notify the MP&L helicopter pilot to stand by in the event his services will be needed.	_____
f. If necessary, activate the EOF and ensure it is properly staffed.	_____
g. Stand by to escalate or close out emergency.	_____

1



Initial/Date

h. Verify any necessary written reports on the Alert are initiated.

\_\_\_\_\_

5.1.2 The Senior Vice President - Nuclear, or his designee, shall:

a. Notify the Vice President of Informational Services, or his designee, of the Alert (Attachment II).

\_\_\_\_\_

b. Notify the Chief Executive Officer, or his designee, of the Alert (Attachment II).

\_\_\_\_\_

5.1.3 The Assistant to the Offsite Emergency Coordinator shall:

| 1

a. Notify the Emergency Planning Coordinator (Attachment II).

\_\_\_\_\_

b. Require designated personnel to report to the CBC or EOF, or to stand by, as instructed by the Offsite Emergency Coordinator.

\_\_\_\_\_

5.1.4 The Emergency Planning Coordinator shall, in order and in accordance with reference 2.2.4.a.:

a. Notify the EOF Communicator

\_\_\_\_\_

b. Notify the Radiation Emergency Manager

\_\_\_\_\_

c. Notify the Technical and Engineering Support Manager

\_\_\_\_\_

d. Notify the Security Manager

\_\_\_\_\_

e. Notify the Emergency Support Manager

\_\_\_\_\_

f. Notify the Engineering Support Manager

\_\_\_\_\_



Initial/Date

- g. Notify the Licensing Manager \_\_\_\_\_
- h. Notify the Fuel Manager \_\_\_\_\_
- i. Notify the General Services Administrator \_\_\_\_\_
- j. Notify selected additional technical resource personnel \_\_\_\_\_
- k. Require designated personnel to report to the CEC, EOF, or to stand by, as appropriate \_\_\_\_\_

1

5.1.5 All personnel notified under 5.1.3 and 5.1.4 shall notify, as appropriate, additional support personnel to stand by in accordance with reference 2.2.4.a.

5.1.6 The Radiation Emergency Manager shall:

- a. Notify INFO and similar support groups, as appropriate. \_\_\_\_\_
- b. Notify members of the Offsite Radiological Monitoring Teams to report to the CEC or to stand by, as appropriate. \_\_\_\_\_

5.1.7 The Vice President of Informational Services, or his designee, shall:

- a. Report to the CEC to set up temporary information operations and assume his role as Corporate Information Officer. \_\_\_\_\_
- b. Serve as information spokesman for the CEC. \_\_\_\_\_
- c. Approve information prepared for the news media prior to its release. \_\_\_\_\_



Initial/Date

- d. Issue press releases or authorize the Public Relations Assistant to the Plant Manager to do so. \_\_\_\_\_
- e. In the event time does not permit the actions specified in 5.1.7.c or 5.1.7.d, the Corporate Information Officer will be informed by the Public Relations Assistant to the Plant Manager as soon as possible of any press release approved by the GGNS On-Call Manager. \_\_\_\_\_
- f. Notify the Emergency News Media Center (ENMC) Manager to prepare to activate the ENMC if the Off-Site Emergency Coordinator directs the EOF to be manned. \_\_\_\_\_
- g. Notify additional personnel as needed. \_\_\_\_\_

5.1.8 The Offsite Emergency (EOF) Communicator shall:

- a. Be responsible for maintaining necessary logbooks and records in accordance with reference 2.2.4.b. \_\_\_\_\_
- b. Notify the CEC Communicator to report to the CEC to assume the appropriate Communicator's duties. \_\_\_\_\_

5.1.9 The General Services Administrator shall:

- a. Notify Middle South Services, Inc. Risk Management Department. \_\_\_\_\_

5.1.10 The Technical and Engineering Support Manager shall:

- a. Notify Middle South Services, Inc. upper management. \_\_\_\_\_

1



Initial/Date

5.1.11 The Engineering Support Manager shall:

- a. Notify vendors having emergency assistance agreements.

1

6.0 APPENDICES

- 6.1 Attachment I - Notification Flowchart
- 6.2 Attachment II - Notification Checklist
- 6.3 Attachment III - CEC Layout



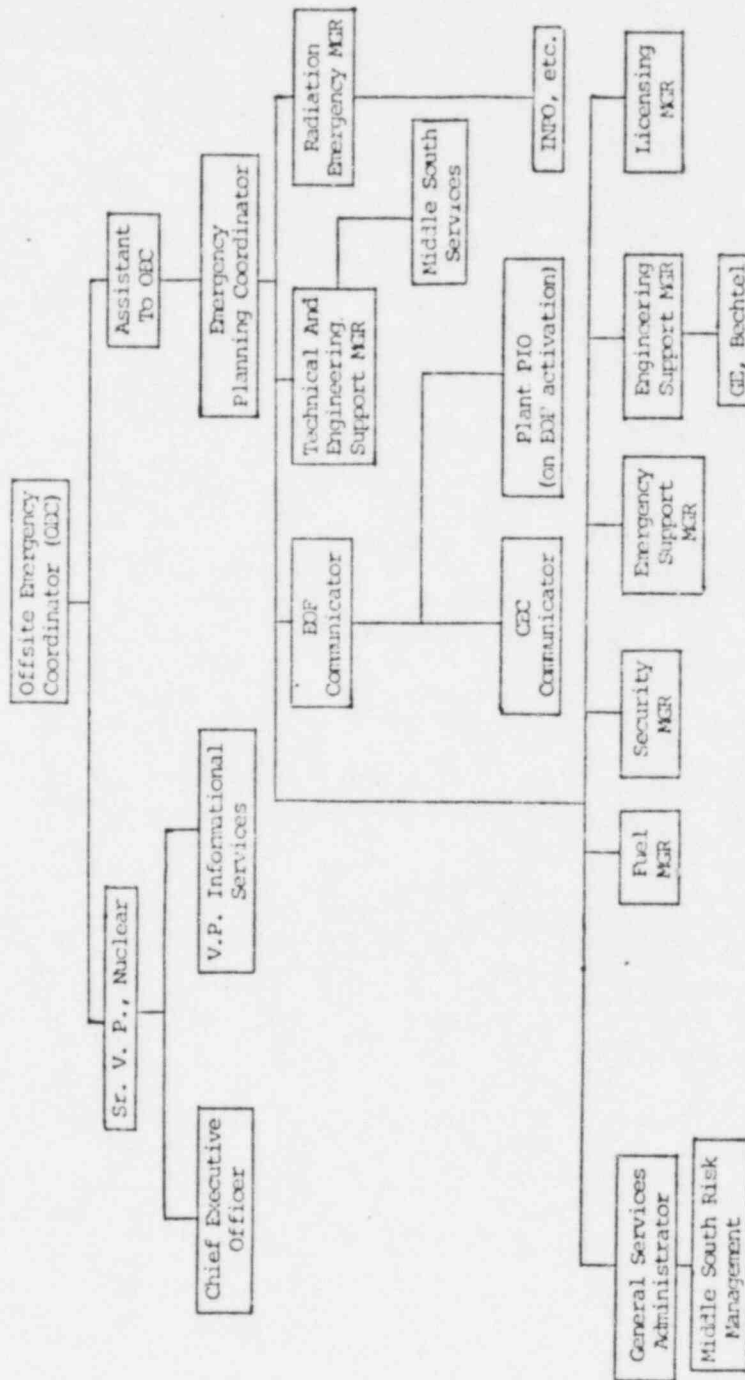
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ALERT, SITE EMERGENCY, GENERAL EMERGENCY  
NOTIFICATION FLOWCHART





NOTIFICATION CHECKLIST  
Alert, Site Emergency, General Emergency

NOTE: (a) indicates primary contact; (b) and (c) indicates alternate or relief contact.

Time  
Notified  
(24-hour clock)

J. P. McGaughy, or Alternate:

- |    |                     |     |     |       |   |
|----|---------------------|-----|-----|-------|---|
| 1. | a) J. D. Richardson | (O) | (H) | _____ | 1 |
|    | b) C. L. Tyrone     | (O) | (H) | _____ |   |
| 2. | a) N. L. Stampley   | (O) | (H) | _____ |   |
|    | b) Diane Park       | (O) | (H) | _____ |   |
| 3. | a) R. C. Loflin     | (O) | (H) | _____ |   |
|    | b) L. James         | (O) | (H) | _____ |   |

J. D. Richardson, or Alternate:

- |    |                   |     |     |       |   |
|----|-------------------|-----|-----|-------|---|
| 1. | a) P. B. Benedict | (O) | (H) | _____ | 1 |
|    | b) G. R. Wilson   | (O) | (H) | _____ |   |

N. L. Stampley, or Designee:

- |    |                   |     |     |       |   |
|----|-------------------|-----|-----|-------|---|
| 1. | a) A. McKeigney   | (O) | (H) | _____ | 1 |
|    | b) L. Hogue       | (O) | (H) | _____ |   |
| 2. | a) D. C. Lutken   | (O) | (H) | _____ |   |
|    | b) Dorris Rodgers | (O) | (H) | _____ |   |
|    |                   |     |     | _____ |   |
|    |                   |     |     | _____ |   |

P. B. Benedict, or Alternate:

- |    |                   |     |     |       |   |
|----|-------------------|-----|-----|-------|---|
| 1. | a) G. O. Smith    | (O) | (H) | _____ | 1 |
|    | b) J. H. Starling | (O) | (H) | _____ |   |
|    | c) J. B. Lee      | (O) | (H) | _____ |   |
| 2. | a) L. R. McKay    | (O) | (H) | _____ |   |
|    | b) J. E. Wallace  | (O) | (H) | _____ |   |
| 3. | a) L. F. Dale     | (O) | (H) | _____ |   |
|    | b) J. F. Pinto    | (O) | (H) | _____ |   |
| 4. | a) M. E. Abbott   | (O) | (H) | _____ | 1 |
|    | b) J. D. Hunt     | (O) | (H) | _____ |   |
| 5. | a) T. M. Johnson  | (O) | (H) | _____ |   |
|    | b) H. Morgan      | (O) | (H) | _____ |   |
| 6. | a) J. F. Pinto    | (O) | (H) | _____ |   |
|    | b) C. W. Angle    | (O) | (H) | _____ |   |

\* - ask for pager  
 \*\* - ext..  
 \*\*\* - ext.



Time  
Notified  
(24-hour Clock)

- 7. a) J. G. Cesare (O) (H) \_\_\_\_\_  
b) P. J. Richardson (O) (H) \_\_\_\_\_
- 8. a) C. L. Tyrone (O) (H) \_\_\_\_\_  
b) J. H. Harrington (O) (H) \_\_\_\_\_
- 9. a) S. L. Emory (O) (H) \_\_\_\_\_  
b) P. I. Sexton (O) (H) \_\_\_\_\_
- 10. a) S. H. Hobbs (O) (H) \_\_\_\_\_  
b) R. Brown (O) (H) \_\_\_\_\_
- 11. a) C. Cook (O) (H) \_\_\_\_\_  
b) L. Sparkman (O) (H) \_\_\_\_\_

G. O. Smith, or Alternate:

- 1. a) G. Ingram (O) (H) \_\_\_\_\_  
b) C. W. Heard (O) (H) \_\_\_\_\_
- 2. a) T. Rivers (upon EOF activation ONLY) - \_\_\_\_\_

L. R. McKay, or Alternate: (as needed - may delegate)

- 1. INPO .....
- 2. U. S. Department of Energy (IRAP).
- or
- 3. Offsite Radiological Monitoring Teams:
  - a) Warren Page (O) (H) \_\_\_\_\_
  - b) Lois Kirkland (O) (H) \_\_\_\_\_
  - c) Joe Baker (O) (H) \_\_\_\_\_
  - d) Juanita Reeves (O) (H) \_\_\_\_\_
  - e) Cynthia Kittrell (O) (H) \_\_\_\_\_
  - f) Ronnie Kimbrough (O) (H) \_\_\_\_\_
  - g) Wayne Webb (O) (H) \_\_\_\_\_
  - h) Valerie Davis (O) (H) \_\_\_\_\_
- 4. Health Physics Network to NRC  
Operations Center .....\* Touch-Tone) \_\_\_\_\_  
Rotary Dial) \_\_\_\_\_

S. L. Emory, or Alternate:

- 1. Middle South Risk Management:  
Call in order until someone is reached:
  - a) Mr. Hugh D. Castles (D) \_\_\_\_\_  
(N) \_\_\_\_\_
  - b) Mr. George G. Buxton (D) \_\_\_\_\_  
(N) \_\_\_\_\_
  - c) Mr. Mike R. Cumbest (D) \_\_\_\_\_  
(N) \_\_\_\_\_



Time  
Notified  
(24-hour clock)

d) Mr. Weldon L. Brundrett

(D) \_\_\_\_\_

(N) \_\_\_\_\_

e) Ms. Kate I. Storms

(D) \_\_\_\_\_

(N) \_\_\_\_\_

L. F. Dale, or Alternate

1. Middle South Services

a. J. B. Richard (O)

(H)

b. Dr. T. W. Schnatz (O)

(H)

1

J. F. Pinto, or Alternate

1. GE ..... (O)

2. BECHTEL.....

(A. Zaccaria)..... (O)

(H)

NRC Commercial Telephone Number (in the event NRC Emergency Notification System inoperable)

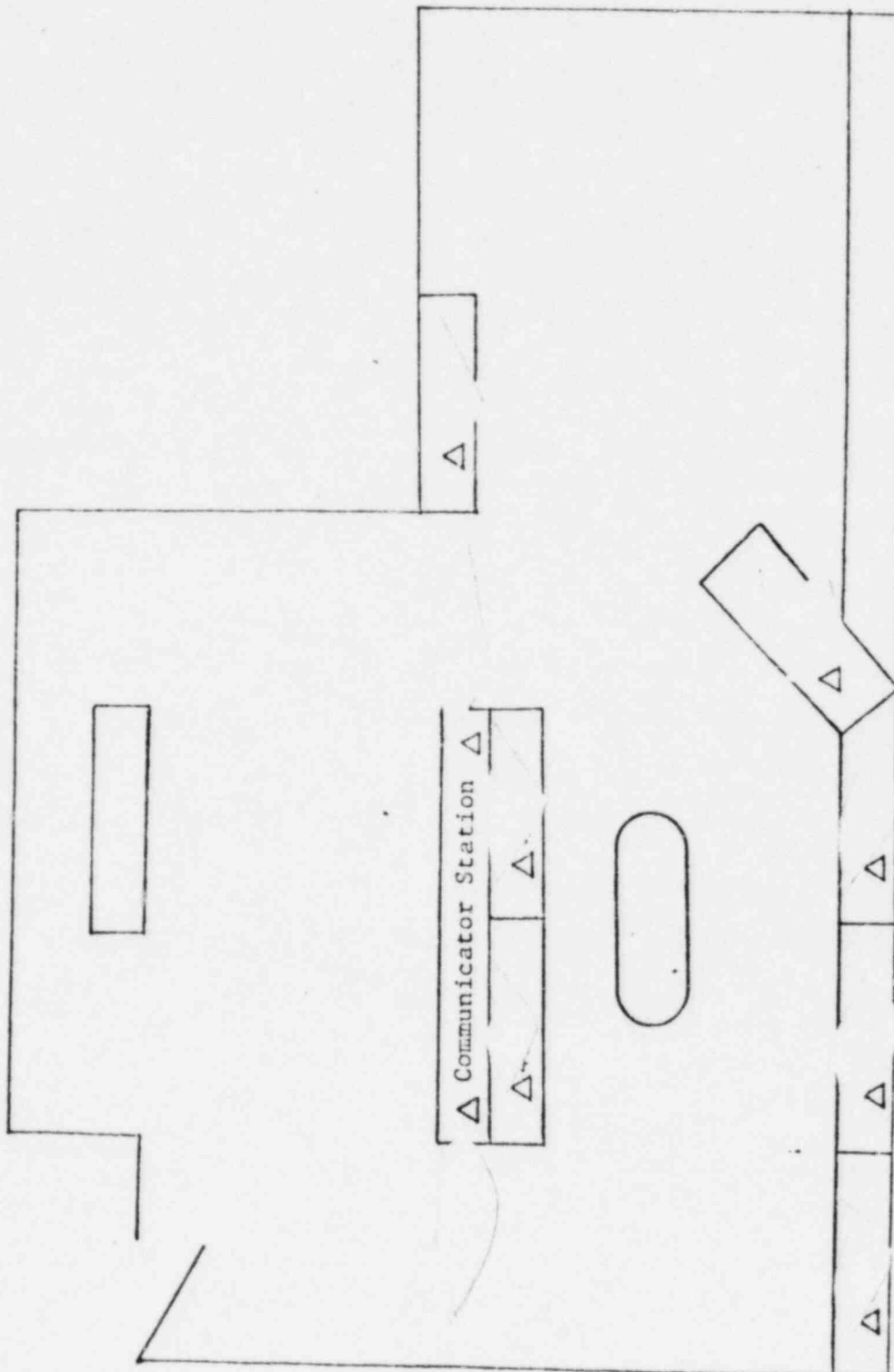
1. To NRC Operations Center

(via Bethesda Central Office).... (202) 951-0550 \_\_\_\_\_

1



CEC LAYOUT



Δ MP&L Telephone Extensions



ALERT  
ATTACHMENT III to Procedure 6.2

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Rev. No. 1

Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE

SITE EMERGENCY

NON-SAFETY RELATED

Prepared: [Signature]  
Reviewed: [Signature] Reviewer      [Signature] Section Manager      W.E. Edge for T.E. Reeves, Jr. Manager of Quality Assurance

Reviewed/Approved: [Signature]  
Manager of Nuclear Services

Reviewed/Approved: [Signature]  
Assistant Vice President-Nuclear Production

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SITE EMERGENCY  
PROCEDURE NO. 6.3

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## SITE EMERGENCY

### 1.0 PURPOSE

- 1.1 The purpose of this procedure is to define the conditions and actions which are necessary to:
- 1.1.1 inform MP&L General Office management of a Site Emergency at GGNS or if an Alert escalates to a Site Emergency (Attachments I and II).
  - 1.1.2 initiate appropriate emergency response actions to mitigate the emergency condition.
  - 1.1.3 provide instructions which will place the General Office in a state of readiness to respond effectively to a Site Emergency to ensure public health and safety.
- 1.2 This procedure supersedes CEPP-3, Site Emergency.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

- 2.1.1 Nuclear Production Department Policy and Organization Manual
  - a. 5.2.3.1
  - b. 7.8
- 2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)
  - a. 1.3.7

#### 2.2 Other References

- 2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.2.2 NUREG-0696, 2/81, Functional Criteria for Emergency Response Facilities
- 2.2.3 GGNS Units 1 and 2 Emergency Plan



2.2.4 Corporate Emergency Plan Procedures

- a. 6.5, Notification and Assignment of Offsite Emergency Organization
- b. 6.8, Documentation and Record Keeping

2.3 Cross-References

3.0 DEFINITIONS

- 3.1 CEC - Corporate Emergency Center; located in the Electric Building basement, Jackson.
- 3.2 CHL - Corporate Hot Line; a dedicated telephone line connecting the EOF and CEC.
- 3.3 ECL - Executive Conference Line; a direct telephone line connecting GGNS management with the CEC and EOF.
- 3.4 ENMC - Emergency News Media Center.
- 3.5 EOF - Near-Site Emergency Operations Facility.
- 3.6 INPO - Institute of Nuclear Power Operations
- 3.7 On-Call Manager - member of GGNS management who has responsibility for assuming role of Emergency Director in the event of an emergency at GGNS.
- 3.8 TSC - Technical Support Center.

4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Assistant Vice President - Nuclear Production, to assume the role of Offsite Emergency Coordinator and implement this procedure if notified of a Site Emergency at GGNS.
- 4.2 In the event the Assistant Vice President - Nuclear Production, is unavailable, the line of succession for those duties described in 4.1 is as follows: Manager of Nuclear Services, Manager of Safety and Licensing.
- 4.3 It is the responsibility of those individuals whose titles appear in 4.1 and 4.2 to ensure that at least one of them will be available at all times to assume the role of Offsite Emergency Coordinator. A duty roster is to be prepared to address this need.



- 4.4 It is the responsibility of the Offsite Emergency Coordinator to notify personnel as specified in this procedure (Attachment I).
- 4.5 It is the responsibility of the Vice President of Informational Services to ensure that a member of his staff will be available to assume those responsibilities assigned him in this procedure, in the event he is unable to do so.
- 4.6 It is the responsibility of the Offsite Emergency Coordinator to activate the EOF at a Site Emergency (Attachment II); in the event a Site Emergency is the initial emergency classification declared, he will direct emergency response personnel to report to the CEC for initial assembly, accountability and dosimetry issue before assuming their positions at the EOF.
- 4.7 It is the responsibility of the Vice President of Informational Services to order the activation of the Media Center when a Site Emergency is declared.

5.0 DETAILS

5.1 Instructions/Checklist

		<u>Initial/Date</u>
5.1.1	<u>The Offsite Emergency Coordinator shall:</u>	
	a. Document in the Offsite Emergency Coordinator's Logbook that a Site Emergency has been declared.	_____
	b. Notify the Senior Vice President - Nuclear, or his designee, of the Site Emergency (Attachment II).	_____
	c. Notify the Assistant to the Offsite Emergency Coordinator to begin notification of Offsite Emergency Organization personnel (Attachment II).	_____
	d. Activate the EOF and instruct General Office personnel to report to the CEC for initial assembly, accountability, and dosimetry issue before departing for the EOF to respond to the emergency as appropriate (Attachment III).	_____





Initial/Date

- e. Notify the MP&L helicopter pilot of those duties for which he will be needed (e.g., transportation, monitoring, etc.) \_\_\_\_\_
- f. Stand by to escalate, de-escalate or close out emergency. \_\_\_\_\_
- g. Verify any necessary written reports on the Site Emergency are initiated. \_\_\_\_\_

1

5.1.2 The Assistant to the Offsite Emergency Coordinator shall:

- a. Notify, as appropriate, the Emergency Planning Coordinator. (Attachment II). \_\_\_\_\_
- b. Require designated personnel to report to the EOF or to standby, as appropriate. \_\_\_\_\_

5.1.3 The Senior Vice President-Nuclear, or his designee, shall:

- a. Notify the Vice President of Informational Services, or his designee, of the General Emergency. \_\_\_\_\_
- b. Notify the Chief Executive Officer, or his designee, of the General Emergency. \_\_\_\_\_

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5.1.4 The Emergency Planning Coordinator shall, in order and in accordance with reference 2.2.4.a:

- a. Notify the EOF Communicator. \_\_\_\_\_
- b. Notify the Radiation Emergency Manager. \_\_\_\_\_
- c. Notify the Technical and Engineering Support Manager. \_\_\_\_\_
- d. Notify the Security Manager. \_\_\_\_\_



- |   | <u>Initial/Date</u> |
|---|---------------------|
| e. Notify the Emergency Support Manager.  | _____               |
| f. Notify the Engineering Support Manager.  | _____               |
| g. Notify the Licensing Manager.  | _____               |
| h. Notify the Fuel Manager.   | _____               |
| i. Notify the General Services Administrator.   | _____               |
| j. Notify selected additional technical response personnel.                           | _____               |
| k. Require designated personnel to report to the EOF, or to stand by, as appropriate. | _____               |

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5.1.5 The Radiation Emergency Manager shall:

- |  |       |
|--|-------|
| a. Notify INPO and similar support agencies, as appropriate.   | _____ |
| b. Have the members of the Offsite Radiological Monitoring Teams assemble at the CEC, then dispatch them to the EOF with necessary equipment in the event of an actual or potential release. | _____ |

5.1.6 All personnel notified under 5.1.2, 5.1.3 and 5.1.4 will be responsible for notification of those support personnel necessary to aid them in the performance of their duties.

\_\_\_\_\_

5.1.7 The Vice President of Informational Services, or his designee, shall:

- |   |       |
|---|-------|
| a. Assume or continue in his role as Corporate Information Officer. | _____ |
| b. Serve as information spokesman for the CEC.                      | _____ |



Initial/Date

- c. Approve information prepared for the news media prior to its release. \_\_\_\_\_
- d. Issue press releases or authorize the Public Relations Assistant to the Plant Manager to do so. \_\_\_\_\_
- e. In the event time does not permit the actions specified in 5.1.7.c or 5.1.7.d, the Corporate Information Officer will be informed by the Public Relations Assistant to the Plant Manager as soon as possible of any press release approved by the GGNS On-Call Duty Manager. \_\_\_\_\_
- f. Direct the ENMC Manager to activate the ENMC. \_\_\_\_\_
- g. Notify additional personnel as needed. \_\_\_\_\_

5.1.8 The Offsite Emergency (EOF) Communicator, as specified in reference 2.2.4.a shall:

- a. Be responsible for maintaining necessary logbooks and records in accordance with reference 2.2.4.b. \_\_\_\_\_
- b. Accompany the Offsite Emergency Coordinator to the EOF to begin EOF Communicator duties. \_\_\_\_\_
- c. Leave initial logbooks and records for the CEC Communicator to use. \_\_\_\_\_
- d. Upon activation of the EOF, notify the Public Relations Assistant to the Plant Manager to leave the TSC and report to the EOF. \_\_\_\_\_



Initial/Date

5.1.9 The General Services Administrator shall:

a. Notify any clerical support personnel to report to the EOF, or to stand by, in accordance with reference 2.2.4.a.

b. Notify Middle South Services, Inc. Risk Management Department.

5.1.10 The CEC Communicator shall:

a. Be responsible for continuing to maintain those necessary logbooks and records begun by the Offsite Emergency Communicator.

5.1.11 The Technical and Engineering Support Manager shall:

a. Notify Middle South Services, Inc. upper management.

5.1.12 The Engineering Support Manager shall:

a. Notify vendors having emergency assistance agreements.

6.0 APPENDICES

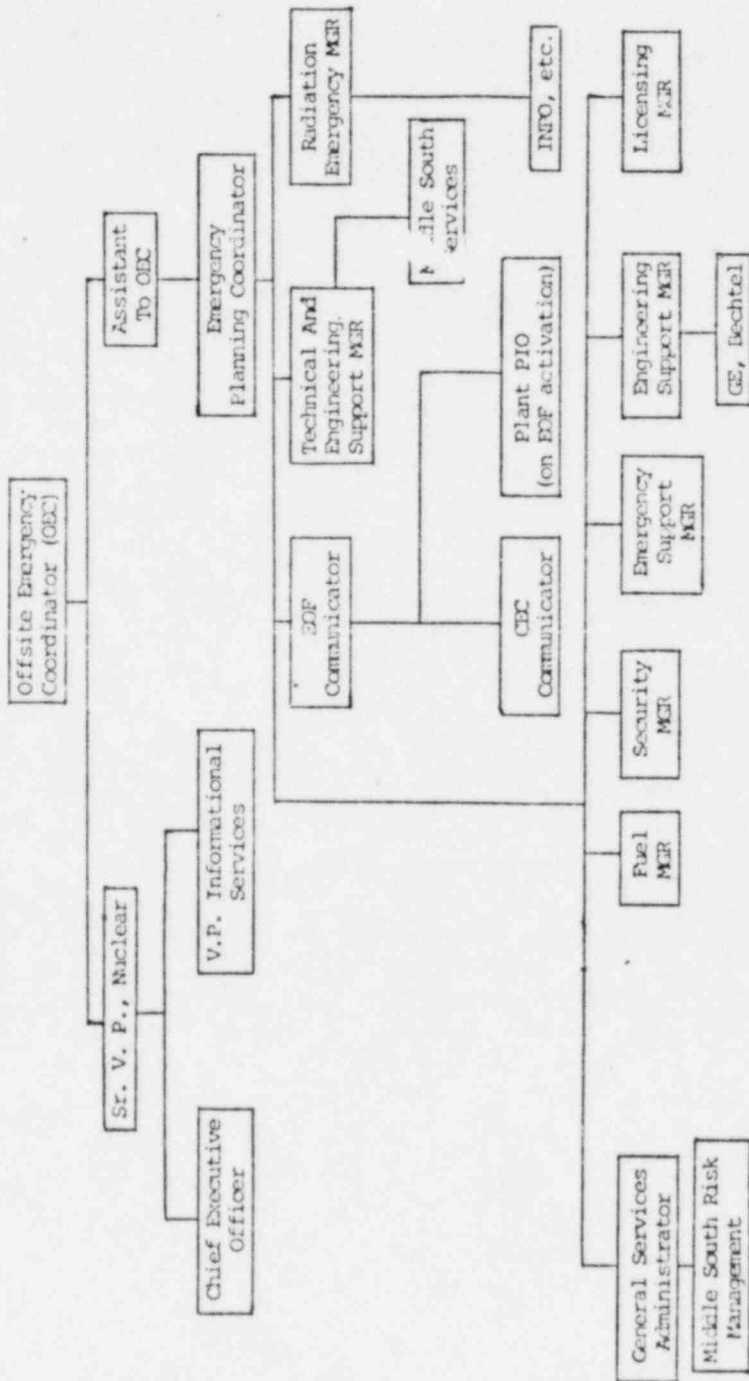
6.1 Attachment I - Notification Flow Chart

6.2 Attachment II - Notification Checklist

6.3 Attachment III - Interim EOF Layout



ALERT, SITE EMERGENCY, GENERAL EMERGENCY  
NOTIFICATION FLAUNCHART



NOTIFICATION CHECKLIST  
Alert, Site Emergency, General Emergency

NOTE: (a) indicates primary contact; (b) and (c) indicates alternate or relief contact.

Time  
Notified  
(24-hour clock)

J. P. McGaughy, or Alternate:

- |    |    |                  |     |     |       |   |
|----|----|------------------|-----|-----|-------|---|
| 1. | a) | J. D. Richardson | (O) | (H) | _____ | 1 |
|    | b) | C. L. Tyrone     | (O) | (H) | _____ |   |
| 2. | a) | N. L. Stampley   | (O) | (H) | _____ |   |
|    | b) | Diane Park       | (O) | (H) | _____ |   |
| 3. | a) | R. C. Loflin     | (O) | (H) | _____ |   |
|    | b) | L. James         | (O) | (H) | _____ |   |

J. D. Richardson, or Alternate:

- |    |    |                |     |     |       |   |
|----|----|----------------|-----|-----|-------|---|
| 1. | a) | P. B. Benedict | (O) | (H) | _____ | 1 |
|    | b) | G. R. Wilson   | (O) | (H) | _____ |   |

N. L. Stampley, or Designee:

- |    |    |                |     |     |       |   |
|----|----|----------------|-----|-----|-------|---|
| 1. | a) | A. McKeigney   | (O) | (H) | _____ | 1 |
|    | b) | L. Hogue       | (O) | (H) | _____ |   |
| 2. | a) | D. C. Lutken   | (O) | (H) | _____ |   |
|    | b) | Dorris Rodgers | (O) | (H) | _____ |   |
|    |    |                |     |     | _____ |   |
|    |    |                |     |     | _____ |   |

P. B. Benedict, or Alternate:

- |    |    |                |     |     |       |   |
|----|----|----------------|-----|-----|-------|---|
| 1. | a) | G. O. Smith    | (O) | (H) | _____ | 1 |
|    | b) | J. H. Starling | (O) | (H) | _____ |   |
|    | c) | J. B. Lee      | (O) | (H) | _____ |   |
| 2. | a) | L. R. McKay    | (O) | (H) | _____ |   |
|    | b) | J. E. Wallace  | (O) | (H) | _____ |   |
| 3. | a) | L. F. Dale     | (O) | (H) | _____ |   |
|    | b) | J. F. Pinto    | (O) | (H) | _____ |   |
| 4. | a) | M. E. Abbott   | (O) | (H) | _____ |   |
|    | b) | J. D. Hunt     | (O) | (H) | _____ |   |
| 5. | a) | T. M. Johnson  | (O) | (H) | _____ |   |
|    | b) | H. Morgan      | (O) | (H) | _____ |   |
| 6. | a) | J. F. Pinto    | (O) | (H) | _____ |   |
|    | b) | C. W. Angle    | (O) | (H) | _____ |   |

\* - ask for pager  
\*\* - ext.  
\*\*\* - ext.



Time  
Notified  
(24-hour Clock)

- 7. a) J. G. Cesare (O) (H)
- b) P. J. Richardson (O) (H)
- 8. a) C. L. Tyrone (O) (H)
- b) J. H. Harrington (O) (H)
- 9. a) S. L. Emory (O) (H)
- b) P. I. Sexton (O) (E)
- 10. a) S. H. Hobbs (O) (H)
- b) R. Brown (O) (H)
- 11. a) C. Cook (O) (H)
- b) L. Sparkman (O) (H)

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

| 1

| 1

G. O. Smith, or Alternate:

- 1. a) G. Ingram (O) (H)
- b) C. W. Heard (O) (H)
- 2. a) T. Rivers (upon EOF activation ONLY)

\_\_\_\_\_

\_\_\_\_\_

L. R. McKay, or Alternate: (as needed - may delegate)

- 1. INPO .....
- 2. U. S. Department of Energy (IPAP).
- or
- 3. Offsite Radiological Monitoring Teams:
  - a) Warren Page (O) (H)
  - b) Lois Kirkland (O) (H)
  - c) Joe Baker (O) (H)
  - d) Juanita Reeves (O) (H)
  - e) Cynthia Kittrell (O) (H)
  - f) Ronnie Kimbrough (O) (H)
  - g) Wayne Webb (O) (H)
  - h) Valerie Davis (O) (H)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 4. Health Physics Network to NRC  
Operations Center .....\* Touch-Tone) \_\_\_\_\_  
Rotary Dial) \_\_\_\_\_

S. L. Emory, or Alternate:

- 1. Middle South Risk Management:  
Call in order until someone is reached:
  - a) Mr. Hugh D. Castles (D) \_\_\_\_\_
  - (N) \_\_\_\_\_
  - b) Mr. George G. Buxton (D) \_\_\_\_\_
  - (N) \_\_\_\_\_
  - c) Mr. Mike R. Cumbest (D) \_\_\_\_\_
  - (N) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Time  
Notified  
(24-hour clock)

d) Mr. Weldon L. Brundrett

(D) \_\_\_\_\_

(N) \_\_\_\_\_

e) Ms. Kate I. Storms

(D) \_\_\_\_\_

(N) \_\_\_\_\_

L. F. Dale, or Alternate

1. Middle South Services

a. J. B. Richard (O)

(H)

b. Dr. T. W. Schnatz (O)

(H)

1

J. F. Pinto, or Alternate

1. GE ..... (O)

2. BECHTEL.....

(A. Zaccaria)..... (O)

(H)

NRC Commercial Telephone Number (in the event NRC Emergency Notification System inoperable)

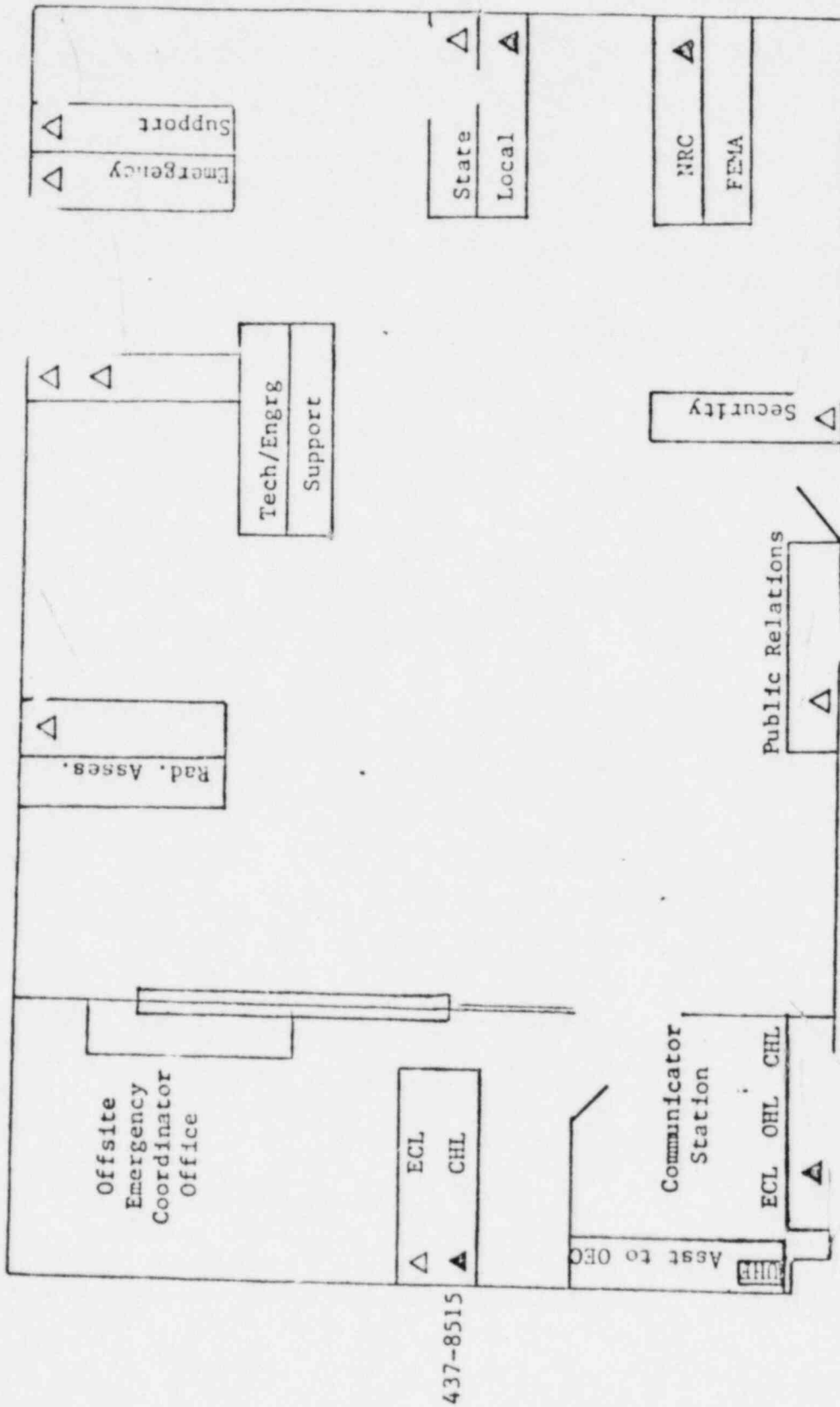
1. To NRC Operations Center  
(via Bethesda Central Office)....

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INTERIM EOF LAYOUT



437-8515



SITE EMERGENCY  
ATTACHMENT III to Procedure 6.3

REV. 1

DATE  
7/8/82

PAGE 1 of 1

Proc. No. 6.4

Rev. No. 1

Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE

GENERAL EMERGENCY

NON-SAFETY RELATED

Prepared: [Signature]

Reviewed: J.R. McKay Reviewer      [Signature] Section Manager      W.E. Edwards Manager of Quality Assurance  
T.E. Reeves, Jr.

Reviewed/Approved: [Signature]  
Manager of Nuclear Services

Reviewed/Approved: [Signature]  
Assistant Vice President - Nuclear Production

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GENERAL EMERGENCY  
PROCEDURE NO. 6.4

REV. 1	DATE 7/8/82
PAGE 1 of 5	

## GENERAL EMERGENCY

### 1.0 PURPOSE

1.1 The purpose of this procedure is to define the conditions and actions which are necessary to:

- 1.1.1 inform MP&L General Office management of a General Emergency at GCNS or if a Site Emergency escalates to a General Emergency.
- 1.1.2 initiate appropriate emergency response actions to mitigate the emergency condition.
- 1.1.3 provide instructions which will place the General Office in a state of readiness to respond effectively to a General Emergency to ensure public health and safety.

1.2 This procedure supersedes CEPP-4, General Emergency.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

#### 2.2 Other References

2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 NUREG-0696, 2/81, Functional Criteria for Emergency Response Facilities

2.2.3 GCNS Units 1 and 2 Emergency Plan



- 2.2.4 Corporate Emergency Plan Procedures
- a. 6.3, Site Emergency
  - b. 6.5, Notification and Assignment of Offsite Emergency Organization
  - c. 6.6, Description of Position Responsibilities
  - d. 6.8, Documentation and Record Keeping
  - e. 6.10, Activation of Emergency Facilities

2.3 Cross-References

3.0 DEFINITIONS

- 3.1 CHL - Corporate Hot Line; a dedicated telephone line connecting the EOF and Corporate Emergency Center (Electric Building basement, Jackson).
- 3.2 ECL - Executive Conference Line; a direct telephone line connecting GGNS management with the Corporate Emergency Center and EOF.
- 3.3 EOF - Near-Site Emergency Operations Facility.
- 3.4 On-Call Manager - member of GGNS management who has responsibility for assuming role of Emergency Director in the event of an emergency at GGNS.

4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Assistant Vice President - Nuclear Production, to assume the role of Offsite Emergency Coordinator and implement this procedure if notified of a General Emergency at GGNS.
- 4.2 In the event the Assistant Vice President - Nuclear Production, is unavailable, the line of succession for those duties described in 4.1 is as follows: Manager of Nuclear Services, Manager of Safety and Licensing.
- 4.3 It is the responsibility of those individuals whose titles appear in 4.1 and 4.2 to ensure that at least one of them will be available at all times to assume the role of Offsite Emergency Coordinator. A duty roster is to be prepared to address this need.



- 4.4 It is the responsibility of the Offsite Emergency Coordinator to notify personnel as specified in this procedure (Attachment I).
- 4.5 It is the responsibility of the Vice President of Informational Services to ensure that a member of his staff will be available to assume those responsibilities assigned him in this procedure, in the event he is unable to do so.
- 4.6 It is the responsibility of the Offsite Emergency Coordinator to direct operations at the EOF during the emergency.
- 4.7 In the unlikely event a General Emergency is the first emergency classification declared, all personnel will also follow instructions as given in references 2.2.4.a and 2.2.4.e to ensure efficient response to the emergency.

5.0 DETAILS

5.1 Instructions/Checklist

- |   | <u>Initial/Date</u> |
|---|---------------------|
| 5.1.1 <u>The Offsite Emergency Coordinator shall:</u>   |                     |
| a. Document in the Offsite Emergency Coordinator's Logbook that a General Emergency has been declared.    | _____               |
| b. Notify the Senior Vice President - Nuclear, or his designee, of the General Emergency (Attachment II). | _____               |
| c. Notify Offsite Emergency Organization personnel in accordance with reference 2.2.4.b (Attachment II).  | _____               |
| d. Stand by to de-escalate or close out emergency.  | _____               |
| e. Verify any necessary written reports on the General Emergency are initiated.                           | _____               |
| 5.1.2 <u>The Senior Vice President-Nuclear, or his designee, shall:</u>                                   |                     |
| a. Notify the Vice President of Informational Services, or his designee, of the General Emergency.        | _____               |



Initial/Date

b. Notify the Chief Executive Officer, or his designee, of the General Emergency.

\_\_\_\_\_

5.1.3 The Offsite Emergency (EOF) Communicator, as specified in reference 2.2.4.a shall:

| 1

a. Be responsible for maintaining necessary logbooks and records in accordance with reference 2.2.4.d.

\_\_\_\_\_

5.1.4 The Corporate Emergency Center Communicator shall:

a. Maintain necessary logbooks and records in accordance with reference 2.2.4.d.

\_\_\_\_\_

5.1.5 Other offsite emergency personnel shall continue with their assigned responsibilities as listed in references 2.2.4.a, 2.2.4.b, and 2.2.4.c.

6.0 APPENDICES

6.1 Attachment I - Notification Flow Chart

6.2 Attachment II - Notification Check List



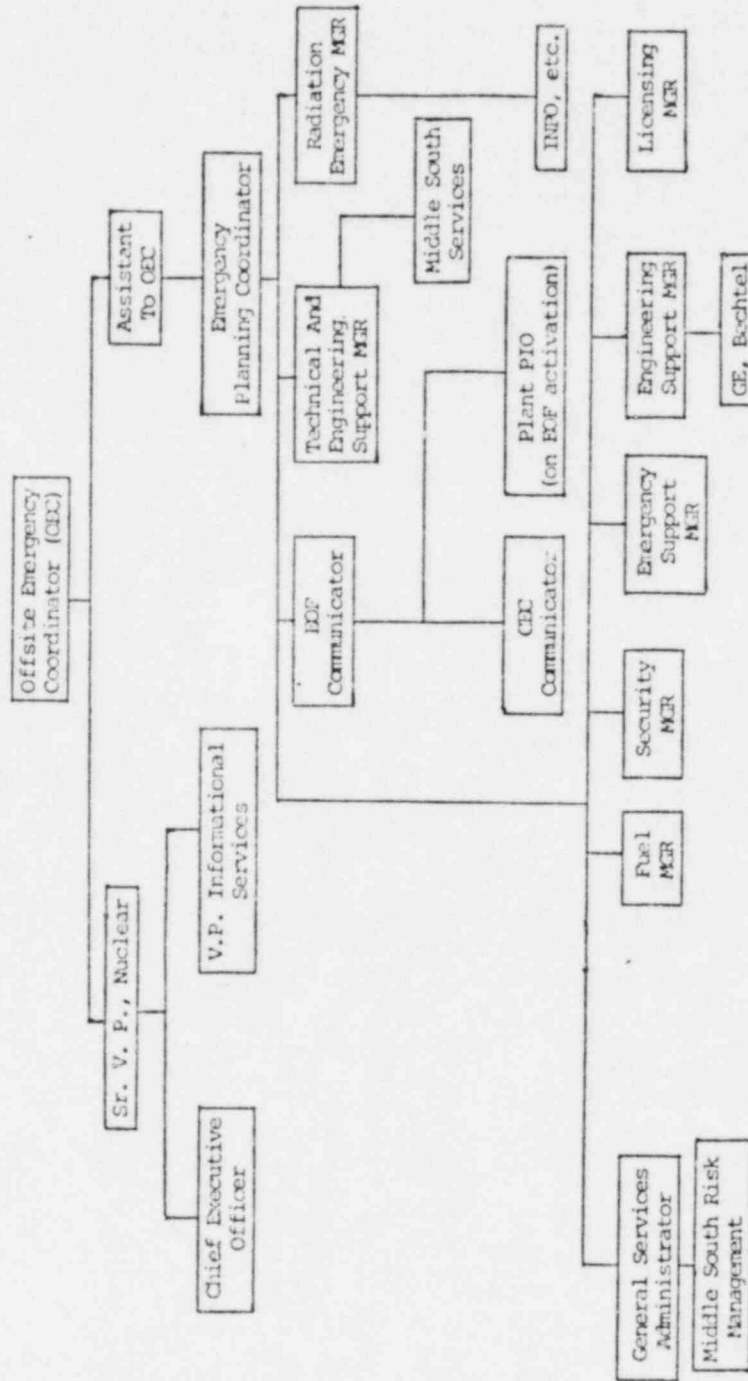
GENERAL EMERGENCY  
PROCEDURE NO. 6.4

REV. 1

DATE  
7/8/82

PAGE 5 of 5

ALERT, SITE EMERGENCY, GENERAL EMERGENCY  
NOTIFICATION FLOWCHART



NOTIFICATION CHECKLIST  
Alert, Site Emergency, General Emergency

NOTE: (a) indicates primary contact; (b) and (c) indicates alternate or relief contact.

Time  
Notified  
(24-hour clock)

J. P. McGaughy, or Alternate:

- |    |                     |     |     |       |  |
|----|---------------------|-----|-----|-------|--|
| 1. | a) J. D. Richardson | (O) | (H) | _____ |  |
|    | b) C. L. Tyrone     | (O) | (H) | _____ |  |
| 2. | a) N. L. Stampley   | (O) | (H) | _____ |  |
|    | b) Diane Park       | (O) | (H) | _____ |  |
| 3. | a) R. C. Loflin     | (O) | (H) | _____ |  |
|    | b) L. James         | (O) | (H) | _____ |  |

1

J. D. Richardson, or Alternate:

- |    |                   |     |     |       |  |
|----|-------------------|-----|-----|-------|--|
| 1. | a) P. B. Benedict | (O) | (H) | _____ |  |
|    | b) G. R. Wilson   | (O) | (H) | _____ |  |

1

N. L. Stampley, or Designee:

- |    |                   |     |     |       |  |
|----|-------------------|-----|-----|-------|--|
| 1. | a) A. McKeigney   | (O) | (H) | _____ |  |
|    | b) L. Hogue       | (O) | (H) | _____ |  |
| 2. | a) D. C. Lutken   | (O) | (H) | _____ |  |
|    | b) Dorris Rodgers | (O) | (H) | _____ |  |

1

P. B. Benedict, or Alternate:

- |    |                   |     |     |       |  |
|----|-------------------|-----|-----|-------|--|
| 1. | a) G. O. Smith    | (O) | (H) | _____ |  |
|    | b) J. H. Starling | (O) | (H) | _____ |  |
|    | c) J. B. Lee      | (O) | (H) | _____ |  |
| 2. | a) L. R. McKay    | (O) | (H) | _____ |  |
|    | b) J. E. Wallace  | (O) | (H) | _____ |  |
| 3. | a) L. F. Dale     | (O) | (H) | _____ |  |
|    | b) J. F. Pinto    | (O) | (H) | _____ |  |
| 4. | a) M. E. Abbott   | (O) | (H) | _____ |  |
|    | b) J. D. Hunt     | (O) | (H) | _____ |  |
| 5. | a) T. M. Johnson  | (O) | (H) | _____ |  |
|    | b) H. Morgan      | (O) | (H) | _____ |  |
| 6. | a) J. F. Pinto    | (O) | (H) | _____ |  |
|    | b) C. W. Angle    | (O) | (H) | _____ |  |

1

\* ask for pager  
\*\* - ext.  
\*\*\* - ext.





Time  
Notified  
(24-hour Clock)

- 7. a) J. G. Cesare (O) (H)
- b) P. J. Richardson (O) (H)
- 8. a) C. L. Tyrone (O) (H)
- b) J. H. Harrington (O) (H)
- 9. a) S. L. Emory (O) (H)
- b) P. I. Sexton (O) (H)
- 10. a) S. H. Hobbs (O) (H)
- b) R. Brown (O) (H)
- 11. a) C. Cook (O) (H)
- b) L. Sparkman (O) (H)

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1

1

G. O. Smith, or Alternate:

- 1. a) G. Ingram (O) (H)
- b) C. W. Heard (O) (H)
- 2. a) T. Rivers (upon EOF activation ONLY) -

\_\_\_\_\_

\_\_\_\_\_

L. R. McKay, or Alternate: (as needed - may delegate)

- 1. INPO .....
- 2. U. S. Department of Energy (IRAP) .
- or to
- 3. Offsite Radiological Monitoring Teams.
  - a) Warren Page (O)
  - b) Lois Kirkland (O)
  - c) Joe Baker (O)
  - d) Juanita Reeves (O)
  - e) Cynthia Kittrell (O)
  - f) Ronnie Kimbrough (O)
  - g) Wayne Webb (O)
  - h) Valerie Davis (O)

\_\_\_\_\_

\_\_\_\_\_

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- 4. Health Physics Network to NRC  
    Operations Center ..... (Touch-Tone) \_\_\_\_\_  
    (Rotary Dial) \_\_\_\_\_

S. L. Emory, or Alternate:

- 1. Middle South Risk Management:  
    Call in order until someone is reached:
  - a) Mr. Hugh D. Castles (D) \_\_\_\_\_
  - (N) \_\_\_\_\_
  - b) Mr. George G. Buxton (D) \_\_\_\_\_
  - (N) \_\_\_\_\_
  - c) Mr. Mike R. Cumbest (D) \_\_\_\_\_
  - (N) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Time  
Notified  
(24-hour clock)

d) Mr. Weldon L. Brundrett

(D)

\_\_\_\_\_

e) Ms. Kate I. Storms

(N)

(D)

(N)

\_\_\_\_\_

\_\_\_\_\_

L. F. Dale, or Alternate

1. Middle South Services

a. J. B. Richard (O)

(H)

b. Dr. T. W. Schnatz (O)

(H)

1

J. F. Pinto, or Alternate

1. GE ..... (O)

2. BECHTEL.....

(A. Zaccaria)..... (O)

(H)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NRC Commercial Telephone Number (in the event NRC Emergency Notification System inoperable)

1. To NRC Operations Center

(via Bethesda Central Office).....

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Proc. No. 6.5

Rev. No. 1

Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE  
NOTIFICATION AND ASSIGNMENT OF OFFSITE  
EMERGENCY ORGANIZATION POSITIONS  
NON-SAFETY RELATED

Prepared: [Signature]

Reviewed: L.R. McKay [Signature] W.E. Edge T.E. Reeves, Jr.  
Reviewer Section Manager Manager of Quality Assurance

Reviewed/Approved: [Signature]  
Manager of Nuclear Services

Reviewed/Approved: [Signature]  
Assistant Vice President Nuclear Production

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NOTIFICATION AND ASSIGNMENT OF OFFSITE  
EMERGENCY ORGANIZATION POSITIONS

1.0 PURPOSE

- 1.1 The purpose of this procedure is to define the conditions and actions which are necessary to:
  - 1.1.1 establish the notification responsibilities and sequence in which Offsite Emergency Organization personnel are notified.
  - 1.1.2 provide notification to offsite organizations and agencies.
  - 1.1.3 designate specific personnel, by name and title, responsible for executing the responsibilities of key emergency organization functions.
  - 1.1.4 to ensure prompt notification of those Offsite Emergency Organization personnel necessary to respond to an emergency condition at GGNS.
- 1.2 This procedure supersedes CEPP-5, Notification and Assignment of Offsite Emergency Organization Positions.

2.0 REFERENCES AND CROSS-REFERENCES

2.1 Commitments

- 2.1.1 Nuclear Production Department Policy and Organization Manual
  - a. 5.2.3.1
  - b. 7.8
- 2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)
  - a. 1.3.7

2.2 Other References

- 2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants



2.2.2 GGNS Units 1 and 2 Emergency Plan

2.3 Cross-References

3.0 DEFINITIONS

3.1 CEC - Corporate Emergency Center; located in the Electric Building Basement, Jackson.

3.2 EOF - Near-Site Emergency Operations Facility.

3.3 INPO - Institute of Nuclear Power Operations

3.4 On-Call Manager - member of GGNS management who has responsibility for assuming role of Emergency Director in the event of an emergency at GGNS.

4.0 RESPONSIBILITY

4.1 It is the responsibility of the Assistant Vice President - Nuclear Production, to assume the role of Offsite Emergency Coordinator and implement this procedure if notified of an emergency at GGNS.

4.2 In the event the Assistant Vice President - Nuclear Production, is unavailable, the line of succession for those duties described in 4.1 is as follows: Manager of Nuclear Services, Manager of Safety and Licensing.

4.3 It is the responsibility of those individuals whose titles appear in 4.1 and 4.2 to ensure that at least one of them will be available at all times to assume the role of Offsite Emergency Coordinator. A duty roster is to be prepared to address this need.

4.4 It is the responsibility of those individuals in the Offsite Emergency Organization to be within reach of a telephone and to have an updated telephone list to ensure prompt execution of this procedure.

4.5 It is the responsibility of those individuals making notifications to make certain they understand exactly what information they are to transmit.



5.0 DETAILS

5.1 Notification Instructions

5.1.1 Unusual Event

a. The Offsite Emergency Coordinator shall, upon notification of an Unusual Event at GCNS by the On-Call Manager, perform the following in accordance with Attachments I and II:

- (1) Notify the Senior Vice President - Nuclear, or his designee.
- (2) Notify the Vice President of Informational Services, or his designee.
- (3) Notify the Chief Executive Officer, or his designee.
- (4) Notify any additional personnel he deems necessary to ensure a proper state of readiness in the event that the situation may become a cause of concern to plant personnel and/or the public.

b. The Vice President of Informational Services, or his designee, shall, upon notification by the Offsite Emergency Coordinator:

- (1) Assume the role of Corporate Information Officer.
- (2) Approve information prepared for the news media prior to its release.
- (3) Issue press releases or authorize the Public Relations Assistant to the Plant Manager to do so.
- (4) In the event time does not permit the activities specified in 5.1.1.b(2) and 5.1.1.b(3), the Corporate Information Officer will be informed by the Public Relations Assistant to the Plant Manager as soon as possible of any press release approved by the GCNS On-Call Manager.



5.1.2 Alert, Site Emergency, General Emergency

a. The Offsite Emergency Coordinator, upon notification by the On-Call Manager of the declaration of one of the above three action levels, shall begin notification of the Offsite Emergency Organization as follows (Attachments III and IV).

- (1) Notify the Senior Vice President - Nuclear, or his designee.
- (2) Notify the Assistant to the Offsite Emergency Coordinator, and instruct him as to which individuals he wants placed on active status.
- (3) Notify the MP&L helicopter pilot, and advise him of those duties for which he is needed (e.g., transportation, monitoring, etc.)

b. The Senior Vice President-Nuclear or his designee, shall:

- (1) Notify the Vice President of Informational Services, or his designee.
- (2) Notify the Chief Executive Officer, or his designee.

c. The Assistant to the Offsite Emergency Coordinator shall:

- (1) Notify the Emergency Planning Coordinator to complete notification of Offsite Emergency Organization.

d. The Emergency Planning Coordinator shall, in order:

- (1) Notify the EOF Communicator.
- (2) Notify the Radiation Emergency Manager.
- (3) Notify the Technical and Engineering Support Manager.
- (4) Notify the Security Manager.



- (5) Notify the Emergency Support Manager.
  - (6) Notify the Engineering Support Manager.
  - (7) Notify the Licensing Manager.
  - (8) Notify the Fuel Manager.
  - (9) Notify the General Services Administrator.
  - (10) Notify the CEC Technical Advisor and other selected technical personnel.
- e. The EOF Communicator shall, depending on the extent of the emergency:
    - (1) Notify the CEC Communicator.
    - (2) Notify, upon EOF activation, the Public Relations Assistant to the Plant Manager.
  - f. The Radiation Emergency Manager shall:
    - (1) Notify INPO and similar support agencies, as appropriate.
    - (2) Notify members of the Offsite Monitoring Teams, as appropriate.
  - g. The General Services Administrator shall:
    - (1) Notify Middle South Services, Inc., Risk Management Department.
  - h. The Technical and Engineering Support Manager shall:
    - (1) Notify Middle South Services, Inc. upper management.
  - i. The Engineering Support Manager shall:
    - (1) Notify Bechtel and General Electric, as appropriate.

5.1.3 Each of those individuals notified under 5.1.2 will, depending on the level of the emergency and instructions transmitted at the time of notification, notify support personnel to assist them in the execution of their duties.





5.2 Assignment of Offsite Emergency Organization Positions

5.2.1 See Attachments V and VI.

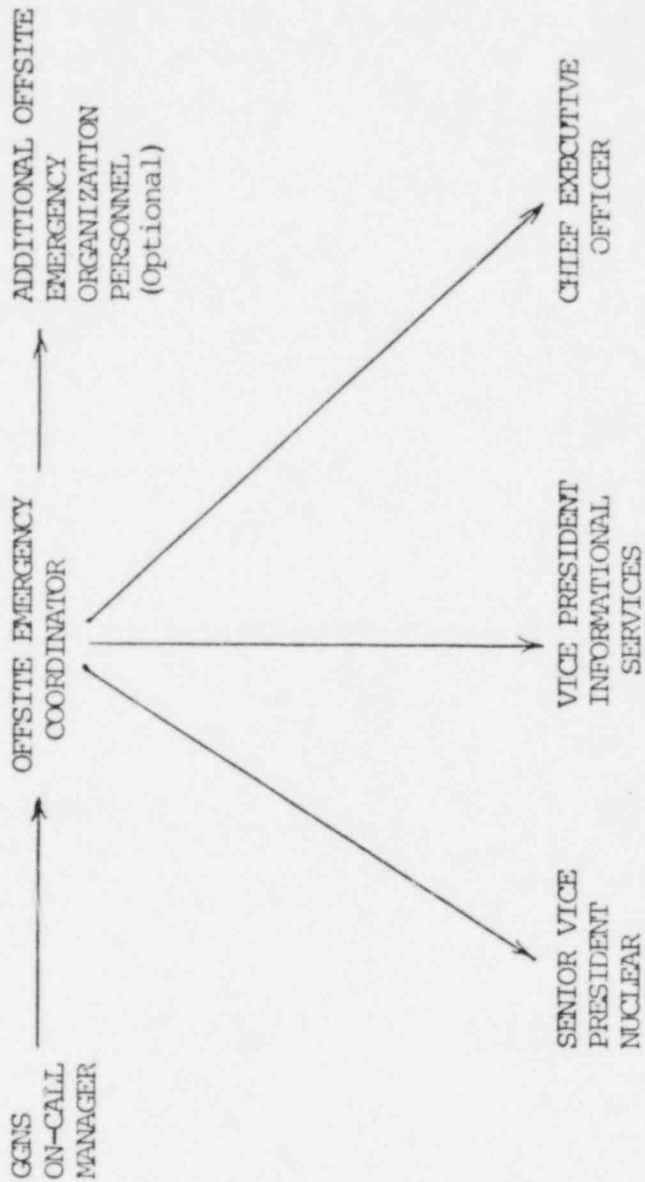
6.0 APPENDICES

- 6.1 Attachment I - Unusual Event - Notification Flow Chart
- 6.2 Attachment II - Unusual Event - Notification Checklist
- 6.3 Attachment III - Alert, Site Emergency, General Emergency - Notification Flow Chart
- 6.4 Attachment IV - Alert, Site Emergency, General Emergency - Notification Checklist
- 6.5 Attachment V - Assignment of Offsite Emergency Organization Positions
- 6.6 Attachment VI - EOF Shift Staffing for Extended Emergencies



UNUSUAL EVENT

OFF-SITE EMERGENCY ORGANIZATION NOTIFICATION



NOTIFICATION AND ASSIGNMENT OF OFFSITE  
EMERGENCY ORGANIZATION POSITIONS  
ATTACHMENT I to Procedure 6.5

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NOTIFICATION CHECKLIST  
Unusual Event

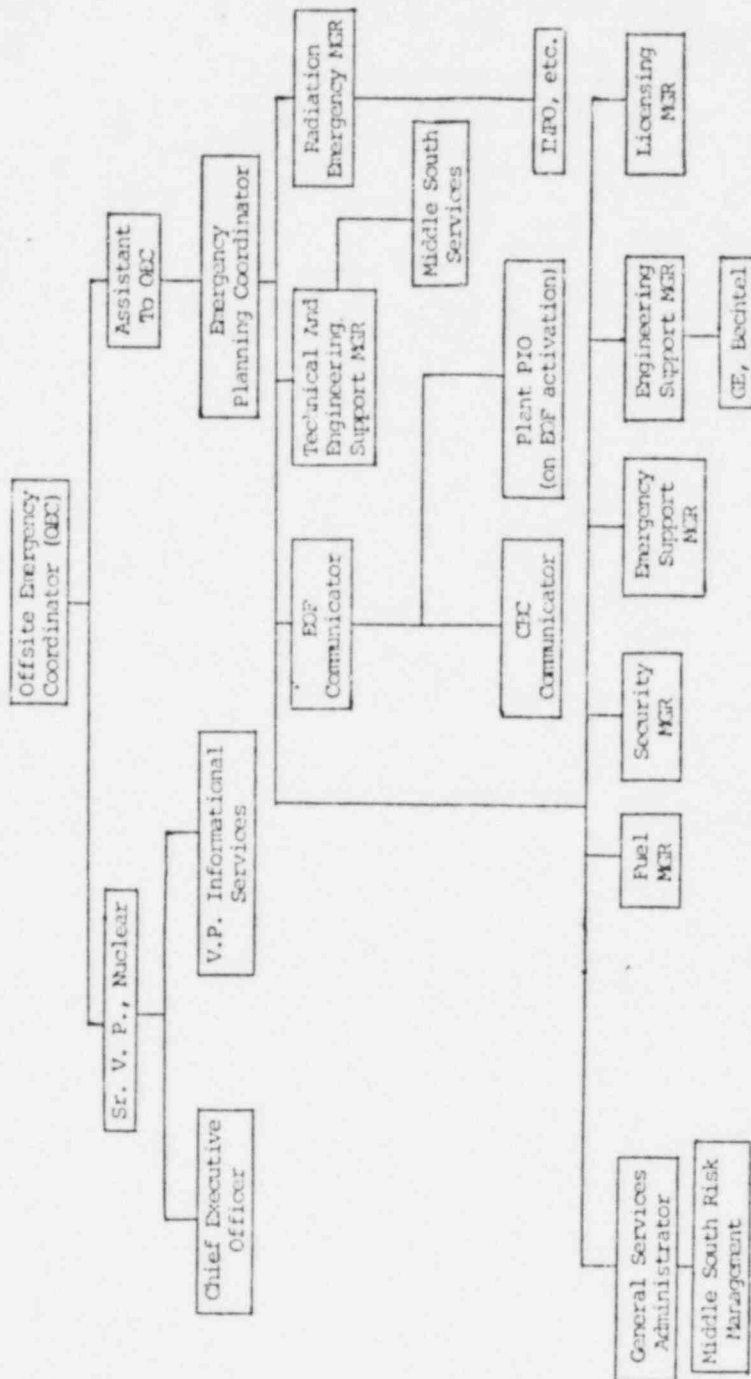
Time  
Notified  
(24-hour clock)

J. P. McGaughy, or Alternate:

- |        |                |     |     |       |       |
|--------|----------------|-----|-----|-------|-------|
| 1.     | N. L. Stampley | (O) | (H) |       | _____ |
| 2. (a) | A. McKeigney   | (O) | (H) |       | _____ |
|        | (b) L. Hogue   | (O) | (H) |       | _____ |
| 3.     | D. C. Lutken   | (O) | (H) | _____ | _____ |
| 4.     | _____          | (O) | (H) | _____ | _____ |



ALERT, SITE EMERGENCY, GENERAL EMERGENCY  
NOTIFICATION FLOWCHART



NOTIFICATION CHECKLIST  
 Aler Site Emergency, General Emergency

NOTE: (a) indicates primary contact; (b) and (c) indicates alternate or relief contact.

Time  
Notified  
(24-hour clock)

J. P. McGaughy, or Alternate:

- |    |                     |     |     |  |
|----|---------------------|-----|-----|--|
| 1. | a) J. D. Richardson | (O) | (H) |  |
|    | b) C. L. Tyrone     | (O) | (H) |  |
| 2. | a) N. L. Stampley   | (O) | (H) |  |
|    | b) Diane Park       | (O) | (H) |  |
| 3. | a) R. C. Loflin     | (O) | (H) |  |
|    | b) L. James         | (O) | (H) |  |

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J. D. Richardson, or Alternate:

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|----|-------------------|-----|-----|--|
| 1. | a) P. B. Benedict | (O) | (H) |  |
|    | b) G. R. Wilson   | (O) | (H) |  |

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N. L. Stampley, or Designee:

- |    |                   |     |     |  |
|----|-------------------|-----|-----|--|
| 1. | a) A. McKeigney   | (O) | (H) |  |
|    | b) L. Hogue       | (O) | (H) |  |
| 2. | a) D. C. Lutken   | (O) | (H) |  |
|    | b) Dorris Rodgers | (O) | (H) |  |

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P. B. Benedict, or Alternate:

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|----|-------------------|-----|-----|--|
| 1. | a) G. O. Smith    | (O) | (H) |  |
|    | b) J. H. Starling | (O) | (H) |  |
|    | c) J. B. Lee      | (O) | (H) |  |
| 2. | a) L. R. McKay    | (O) | (H) |  |
|    | b) J. E. Wallace  | (O) | (H) |  |
| 3. | a) L. F. Dale     | (O) | (H) |  |
|    | b) J. F. Pinto    | (O) | (H) |  |
| 4. | a) M. E. Abbott   | (O) | (H) |  |
|    | b) J. D. Hunt     | (O) | (H) |  |
| 5. | a) T. M. Johnson  | (O) | (H) |  |
|    | b) H. Morgan      | (O) | (H) |  |
| 6. | a) J. F. Pinto    | (O) | (H) |  |
|    | b) C. W. Angle    | (O) | (H) |  |

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\* - ask for pager  
 \*\* - ext.  
 \*\*\* - , ext.



Time  
Notified  
(24-hour Clock)

- 7. a) J. G. Cesare (O) (H)
- b) P. J. Richardson (O) (H)
- 8. a) C. L. Tyrone (O) (H)
- b) J. H. Harrington (O) (H)
- 9. a) S. L. Emory (O) (H)
- b) P. I. Sexton (O) (H)
- 10. a) S. H. Hobbs (O) (H)
- b) R. Brown (O) (H)
- 11. a) C. Cook (O) (H)
- b) L. Sparkman (O) (H)

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G. O. Smith, or Alternate:

- 1. a) G. Ingram (O) (H)
- b) C. W. Heard (O) (H)
- 2. a) T. Rivers (upon EOF activation ONLY)

\_\_\_\_\_

\_\_\_\_\_

L. R. McKay, or Alternate: (as needed - may delegate)

- 1. INPO .....
- 2. U. S. Department of Energy (IRAP).
- or (
- 3. Offsite Radiological Monitoring Teams
  - a) Warren Page (O) (H)
  - b) Lois Kirkland (O) (H)
  - c) Joe Baker (O) (H)
  - d) Juanita Reeves (O) (H)
  - e) Cynthia Kittrell (O) (H)
  - f) Ronnie Kimbrough (O) (H)
  - g) Wayne Webb (O) (H)
  - h) Valerie Davis (O) (H)

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- 4. Health Physics Network to NRC  
    Operations Center ..... (Touch-Tone) \_\_\_\_\_  
    Rotary Dial) \_\_\_\_\_

S. L. Emory, or Alternate:

- 1. Middle South Risk Management:  
    Call in order until someone is reached:
- a) Mr. Hugh D. Castles (D) \_\_\_\_\_
- (N) \_\_\_\_\_
- b) Mr. George G. Buxton (D) \_\_\_\_\_
- (N) \_\_\_\_\_
- c) Mr. Mike R. Cumbest (D) \_\_\_\_\_
- (N) \_\_\_\_\_

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Time  
Notified  
(24-hour clock)

d) Mr. Weldon L. Brundrett

(D)

(N)

e) Ms. Kate I. Storms

(D)

(N)

L. F. Dale, or Alternate

1. Middle South Services

a. J. B. Richard (O)

(H)

b. Dr. T. W. Schnatz (O)

(H)

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J. F. Pinto, or Alternate

1. GE ..... (O)

2. BECHTEL.....

(A. Zaccaria)..... (O)

(H)

NRC Commercial Telephone Number (in the event NRC Emergency Notification System inoperable)

1. To NRC Operations Center

(via Bethesda Central Office)..... (202) 951-0550

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NOTIFICATION AND ASSIGNMENT OF OFFSITE  
 EMERGENCY ORGANIZATION POSITIONS  
 ATTACHMENT V to Procedure 6.5

REV. 1

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ASSIGNMENT OF OFFSITE EMERGENCY ORGANIZATION POSITIONS

<u>POSITION</u>	<u>PRIMARY OCCUPANT</u>	<u>DESIGNATED ALTERNATE</u>	<u>RELIEF OCCUPANT*</u>
Offsite Emergency Coordinator	Assistant Vice President-Nuclear Production ----- J. P. McGaughy	Manager of Nuclear Services ----- L. F. Dale	**
Assistant to the Offsite Emergency Coordinator	Manager of Safety & Licensing ----- J. D. Richardson	Manager of Nuclear Fuel ----- C. L. Tyrone	**
EOF Communicator	Environmental Specialist ----- G. O. Smith	Licensing Engineer ----- J. H. Starling	Engineer ----- J. Lee
CEC Communicator	QA Representative ----- G. W. Ingram	QA Representative ----- C. W. Heard	**
Public Information Officer	Public Relations Assistant to the Plant Manager ----- P. H. Rivers	Second Public Relations Assistant ----- D. Hunt	**
Emergency News Media Center Manager	V. P. Informational Services ----- A. McKeigney	Mgr. of Informational Services ----- L. Hogue	**

\* For extended emergencies.  
 \*\* Same as designated alternate. In extended emergencies where the relief occupant is acting as primary, special arrangements would be made to ensure extended response coverage.





NOTIFICATION AND ASSIGNMENT OF OFFSITE  
 EMERGENCY ORGANIZATION POSITIONS  
 ATTACHMENT V to Procedure 6.5

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ASSIGNMENT OF OFFSITE EMERGENCY ORGANIZATION POSITIONS

<u>POSITION</u>	<u>PRIMARY OCCUPANT</u>	<u>DESIGNATED ALTERNATE</u>	<u>RELIEF OCCUPANT*</u>	
Technical & Engineering Support Manager	Manager of Nuclear Services ----- L. F. Dale	Manager, Nuclear Plant Engineering ----- J. F. Pinto	**	1
Engineering Support Manager	Manager, Nuclear Plant Engineering ----- J. F. Pinto	Principal Engineer NPE-OAS ----- C. W. Angle	**	1
Licensing Manager	Supervisor of Licensing ----- J. G. Cesare	Licensing Ass't ----- P. J. Richardson	**	
Fuel Manager	Manager of Nuclear Fuel ----- C. L. Tyrone	Engineer ----- J. D. Harrington	**	
Security Manager	Manager of Corporate Security ----- M. E. Abbott	Physical Security Specialist ----- J. D. Hunt	**	
Radiation Emergency Manager	Corporate Health Physicist ----- L. R. McKay	Radiation Protection Specialist ----- J. E. Wallace	**	1

\* For extended emergencies.  
 \*\* Same as designated alternate. In extended emergencies where the relief occupant is acting as primary, special arrangements would be made to ensure extended response coverage.



NOTIFICATION AND ASSIGNMENT OF OFFSITE  
EMERGENCY ORGANIZATION POSITIONS  
ATTACHMENT V to Procedure 6.5

ASSIGNMENT OF OFFSITE EMERGENCY ORGANIZATION POSITIONS

<u>POSITION</u>	<u>PRIMARY OCCUPANT</u>	<u>DESIGNATED ALTERNATE</u>	<u>RELIEF OCCUPANT*</u>
Emergency Support Manager	Manager of Administrative and Business Services ----- T. M. Johnson	Construction Superintendent ----- H. Morgan	**
General Services Administrator	Contract Administrator ----- S. L. Emory	Engineer ----- P. I. Sexton	**
CBC Technical Advisor	Supervisor of Nuclear Safety ----- S. H. Hobbs	Engineer ----- R. Brown	**
Emergency Planning Coordinator	Emergency Planning Coordinator ----- P. B. Benedict	Engineering Assistant ----- G. R. Wilson	**

\* For extended emergencies.

\*\* Same as designated alternate. In extended emergencies where the relief occupant is acting as primary, special arrangements would be made to ensure extended response coverage.

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EOF SHIFT STAFFING FOR EXTENDED EMERGENCIES

POSITION	0-12	Time Post-Emergency (hours)			
		12-24	24-36	36-48	48-60
Offsite Emergency Coordinator					
(A) Asst. Vice President - Nuclear Prod.	A	A	B	A	B
(B) Manager of Nuclear Services					
Assistant to Offsite Emergency Coordinator	A	B	A	B	A
(A) Manager of Safety & Licensing					
(B) Manager of Nuclear Fuel					
EOF Communicator*	A	A	B	A	B
(A) Environmental Specialist					
(B) Licensing Engineer					
CEC Communicator	A	B	A	B	A
(A) QA Representative					
(B) QA Representative					
Public Information Officer	A	A	B	A	B
(A) Public Rel. Asst. to Plant Manager					
(B) Second PR Asst. to Plant Manager					
Technical & Engineering Support Manager	A	B	A	B	A
(A) Manager of Nuclear Services					
(B) Manager, Nuclear Plant Engineering					
Engineering Support Manager	A	A	B	A	B
(A) Manager, Nuclear Plant Eng.					
(B) Principal Engineer, NPE-OAS					
Licensing Manager	A	B	A	B	A
(A) Supervisor of Licensing					
(B) Licensing Assistant					

\* An additional Engineer is available for relief operations as Communicator.



EOF SHIFT STAFFING FOR EXTENDED EMERGENCIES (cont.)

POSITION	0-12	Time Post-Emergency (hours)			
		12-24	24-36	36-48	48-60
Fuel Manager	A	A	B	A	B
(A) Manager of Nuclear Fuel					
(B) Engineer					
Security Manager	A	B	A	B	A
(A) Manager of Corporate Security					
(B) Physical Security Specialist					
Radiation Emergency Manager	A	A	B	A	B
(A) Corporate Health Physicist					
(B) Radiation Protection Spec.					
Emergency Support Manager	A	B	A	B	A
(A) Manager of Administrative and Business Services					
(B) Construction Superintendent					
General Services Administrator	A	A	B	A	B
(A) Contract Administrator					
(B) Engineer					
Emergency Planning Coordinator	A	A	B	A	B
(A) Emergency Planning Coordinator					
(B) Engineering Assistant					

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NOTIFICATION AND ASSIGNMENT OF OFFSITE  
EMERGENCY ORGANIZATION POSITIONS  
ATTACHMENT VI to Procedure 6.5

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Rev. No. 1

Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE  
DESCRIPTION OF POSITION RESPONSIBILITIES  
NON-SAFETY RELATED

Prepared: \_\_\_\_\_

Reviewed: \_\_\_\_\_

*L. R. McKay*  
Reviewer

*[Signature]*  
Section Manager

*W. E. Edge for T. E. Reaves, Jr.*  
Manager of Quality Assurance

Reviewed/Approved: \_\_\_\_\_

*[Signature]*  
Manager of Nuclear Services

Reviewed/Approved: \_\_\_\_\_

*[Signature]*  
Assistant Vice President - Nuclear Production

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10	1
11 - 18	0
19	1
20	0
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DESCRIPTION OF POSITION RESPONSIBILITIES

1.0 PURPOSE

- 1.1 The purpose of this procedure is to describe the responsibilities assigned to each named emergency position.
- 1.2 This procedure supersedes CEPP-6, Description of Position Responsibilities.

2.0 REFERENCES AND CROSS-REFERENCES

2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

2.2 Other References

2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 GGNS Units 1 and 2 Emergency Plan

2.2.3 Corporate Emergency Plan Procedures

- a. 6.10, Activation of Emergency Facilities

2.3 Cross-References

3.0 DEFINITIONS

3.1 CEC - Corporate Emergency Center



3.2 ENMC - Emergency News Media Center

3.3 EOF - Near-Site Emergency Operations Facility

3.4 TSC - Technical Support Center

4.0 RESPONSIBILITY

4.1 It is the responsibility of each member of the Offsite Emergency Organization to be knowledgeable of those duties he will be required to perform in the event of an emergency at GGNS (Attachment I).

4.2 It is the responsibility of each member of the Offsite Emergency Organization, if he becomes aware of areas of assigned responsibility that have changed or should be changed as a result of drills, exercises, or emergencies, to inform the Emergency Planning Coordinator of these areas.

4.3 It is the responsibility of the Emergency Planning Coordinator to review and, if applicable, incorporate proposed changes in position responsibilities recommended under 4.2 above.



DESCRIPTION OF POSITION RESPONSIBILITIES  
PROCEDURE NO. 6.6

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5.0 DETAILS

5.1 Title: OFFSITE EMERGENCY COORDINATOR

5.1.1 Reports to: Senior Vice President - Nuclear

5.1.2 Location: CEC at Alert; EOF at Site Emergency, General Emergency, or any other emergency classification if he deems situation so warrants.

5.1.3 Responsibilities:

- a. Overall GGNS emergency response effort.
- b. Make appropriate emergency notifications.
- c. Maintain Offsite Emergency Coordinator Logbook.
- d. Direct Offsite Emergency Organization response.
- e. Order activation of CEC, EOF at appropriate emergency classifications.
- f. Provide guidance to Emergency Director as appropriate.
- g. Maintain control over offsite communications.
- h. Direct transition from emergency to recovery phases when necessary.
- i. Perform additional duties as required.





5.2 Title: ASSISTANT TO THE OFFSITE EMERGENCY COORDINATOR

5.2.1 Reports to: Offsite Emergency Coordinator

5.2.2 Location: CEC at Alert, EOF at Site or General  
Emergency

5.2.3 Responsibilities:

- a. Assist Offsite Emergency Coordinator in execution of his duties.
- b. Make appropriate emergency notifications.
- c. Review incoming communications for completeness and accuracy before forwarding to Offsite Emergency Coordinator.
- d. Review replies from EOF staff to Offsite Emergency Coordinator's questions for completeness and accuracy before forwarding to Offsite Emergency Coordinator.
- e. Act as technical advisor to Offsite Emergency Coordinator.
- f. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
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5.3 Title: EMERGENCY PLANNING COORDINATOR

5.3.1 Reports to: Offsite Emergency Coordinator

5.3.2 Location: CEC or EOF as instructed

5.3.3 Responsibilities:

- a. Make appropriate emergency notifications.
- b. Answer questions relating to actions required by the GGNS Emergency Plan or Procedures, or state/local emergency plans.
- c. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
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5.4 Title: OFFSITE EMERGENCY (EOF) COMMUNICATOR

5.4.1 Reports to: Offsite Emergency Coordinator

5.4.2 Location: CEC or EOF as instructed

5.4.3 Responsibilities:

- a. Notify CEC Communicator.
- b. Maintain necessary Communicator Logbooks and other records.
- c. Perform communications equipment check before formal notification of activation of CEC or EOF.
- d. Establish communication link with TSC from CEC and EOF.
- e. Perform turnover to CEC Communicator at CEC.
- f. Assist CEC Communicator until EOF is ordered activated.
- g. Report to EOF when activation order is issued.
- h. Establish communications link with CEC from EOF.
- i. Coordinate messages through Offsite Emergency Coordinator.
- j. Perform additional duties as required or requested.



5.5 Title: CEC COMMUNICATOR

5.5.1 Reports to: Senior Vice President - Nuclear, or other MP&L senior management official in CEC.

5.5.2 Location: CEC

5.5.3 Responsibilities:

- a. Maintain Communicator Logbook and other records.
- b. Maintain communications link with EOF.
- c. Coordinate messages through Senior Vice President - Nuclear or other senior management official, as appropriate.
- d. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
PROCEDURE NO. 6.6

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5.6 Title: PUBLIC INFORMATION OFFICER

5.6.1 Reports to: Offsite Emergency Coordinator

5.6.2 Location: EOF

5.6.3 Responsibilities:

- a. Dispatch MP&L technical representatives to state/county EOC.
- b. Establish and maintain communications link with Emergency News Media Center Manager.
- c. Prepare press releases for approval of technical content and accuracy by Offsite Emergency Coordinator.
- d. Coordinate press releases with Emergency News Media Center Manager.
- e. Perform additional duties as required or requested.



5.7 Title: EMERGENCY NEWS MEDIA CENTER MANAGER

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5.7.1 Reports to: Offsite Emergency Coordinator via Corporate Information Officer

5.7.2 Location: Emergency News Media Center

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5.7.3 Responsibilities:

- a. Notify necessary support staff.
- b. Establish and maintain communications link with Corporate Emergency Center.
- c. Establish and maintain communications link with Public Information Officer.
- d. Coordinate, as much as possible, press releases with state, local and federal public relations representatives.
- e. Conduct press conferences regularly throughout emergency.
- f. Perform additional duties as required or requested.



5.8 Title: TECHNICAL AND ENGINEERING SUPPORT MANAGER

5.8.1 Reports to: Offsite Emergency Coordinator

5.8.2 Location: CEC or EOF as instructed

5.8.3 Responsibilities:

- a. Coordinate requests for specific technical information from Offsite Emergency Coordinator.
- b. Analyze data supplied by Fuels, Licensing or Engineering support groups for completeness and accuracy before forwarding it to Offsite Emergency Coordinator.
- c. Coordinate plant requests for offsite assistance with Emergency Support Manager.
- d. Direct response efforts of Fuels, Licensing, and Engineering support groups.
- e. Coordinate technical requests from Middle South Risk Management and American Nuclear Insurers.
- f. Designate an individual to update the technical portion of the status board(s).
- g. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
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5.9 Title: ENGINEERING SUPPORT MANAGER

5.9.1 Reports to: Technical and Engineering Support  
Manager

5.9.2 Location: TSC until EOF is activated

5.9.3 Responsibilities:

- a. Provide engineering analysis of actual or potential problems which may develop during an emergency.
- b. Interface with Bechtel, GE, and other outside support organizations on analysis of GCNS components and systems.
- c. Provide other engineering support as requested.
- d. When EOF is activated, brief Offsite Emergency Coordinator on status of emergency before assuming EOF duties.
- e. Perform additional duties as required or requested.





5.10 Title: LICENSING MANAGER

5.10.1 Reports to: Technical and Engineering Support  
Manager

5.10.2 Location: CEC or EOF as instructed

5.10.3 Responsibilities:

- a. Assure compliance with pertinent administrative procedures, Technical Specifications, and Federal regulations (10CFR50.72, Reg. Guide 1.16, 10CFR50.36, etc.).
- b. Review status board updates or relevant messages for conditions reportable to the NRC or other agency(ies).
- c. Review necessary reporting instructions for Plant Staff with Technical and Engineering Support Manager.
- d. Perform additional duties as required or requested.



5.11 Title: FUEL MANAGER

5.11.1 Reports to: Technical and Engineering Support  
Manager

5.11.2 Location: CEC or EOF as instructed

5.11.3 Responsibilities:

- a. Evaluate status of reactor core.
- b. Determine subcriticality or critical state.
- c. Perform decay heat calculations.
- d. Evaluate fission product data and off gas data to determine extent of core damage.
- e. Determine fuel mechanical integrity.
- f. Evaluate incore instrument data.
- g. Provide advice regarding core design (criteria, limits, etc.).
- h. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
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5.12 Title: SECURITY MANAGER

5.12.1 Reports to: Offsite Emergency Coordinator

5.12.2 Location: CEC or EOF as instructed

5.12.3 Responsibilities:

- a. Develop procedures for security of EOF access in coordination with Plant Staff.
- b. Coordinate EOF security with plant resources during an emergency.
- c. Interface with offsite law enforcement officials as needed to support onsite security effort.
- d. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
PROCEDURE NO. 6.6

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5.13 Title: RADIATION EMERGENCY MANAGER

5.13.1 Reports to: Offsite Emergency Coordinator

5.13.2 Location: CEC or EOF as instructed

5.13.3 Responsibilities:

- a. Make dose projections from pertinent radiological release and meteorological data.
- b. Dispatch and maintain radio communications with the radiological assessment field teams.
- c. Obtain and evaluate field data from the field teams.
- d. Obtain and evaluate analytical results of field samples from Site Access Point (SAP).
- e. Compare dose commitments to EPA PAGs and provide protective action recommendations to Offsite Emergency Coordinator.
- f. Discuss potential radiological consequences with state representatives and coordinate compilation, evaluation and comparison of all field data.
- g. Keep apprised of plant status that affects the radiological aspects of the emergency.
- h. Ensure radiological portion of status board(s) is updated.
- i. Perform additional duties as required or requested.



DESCRIPTION OF POSITION RESPONSIBILITIES  
PROCEDURE NO. 6.6

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5.14 Title: EMERGENCY SUPPORT MANAGER

5.14.1 Reports to: Offsite Emergency Coordinator

5.14.2 Location: CEC or EOF as instructed

5.14.3 Responsibilities:

- a. Coordinate requests for offsite technical support personnel with Technical and Engineering Support Manager.
- b. Coordinate responses to specific support requests from Offsite Emergency Coordinator with Emergency Support Group.
- c. Analyze outgoing information for completeness and accuracy before forwarding to Offsite Emergency Coordinator.
- d. Ensure those activities assigned to General Services and Plant Access support groups are effectively carried out.
- e. Ensure the EOF is arranged, equipped and supplied in accordance with reference 2.2.3.a.
- f. Perform additional duties as required or requested.



5.15 Title: GENERAL SERVICES ADMINISTRATOR

5.15.1 Reports to: Emergency Support Manager

5.15.2 Location: CEC or EOF as instructed

5.15.3 Responsibilities:

- a. Notify support personnel scheduled for CEC and for transportation assignments.
- b. Make transportation assignments for personnel departing CEC for EOF, attempting to ensure that key personnel are not grouped in the same vehicle.
- c. Arrange for emergency food supplies for EOF.
- d. Arrange emergency first aid for EOF and other emergency personnel as needed.
- e. Arrange for clerical support as needed.
- f. During extended emergencies, make meal/lodging arrangements for EOF emergency personnel (and on-site Plant Staff personnel not residing a reasonable distance from the plant) at the end of their shift.
- g. Identify supplies and equipment needed to operate the CEC or EOF.
- h. Prestock sufficient quantities of office supplies, telephone directories and office equipment needed to operate the CEC or EOF at a location in or near, respectively, the CEC or EOF.
- i. Ensure that telephone and radio systems are operational and that repair service is available.
- j. Has a representative from Middle South Risk Management assigned to coordinate the logistic needs of American Nuclear Insurers.
- k. Perform additional duties as required or requested.



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5.16 Title: CEC Technical Advisor

5.16.1 Reports to: Senior MP&L Official in CEC

5.16.2 Location: CEC

5.16.3 Responsibilities:

- a. Explain, as requested, technical details of the emergency to the MP&L Senior management official in the CEC.
- b. Perform additional duties as required or requested.

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6.0 APPENDICES

6.1 Attachment I - Offsite Emergency Organization Flowchart



DESCRIPTION OF POSITION RESPONSIBILITIES  
PROCEDURE NO. 6.6

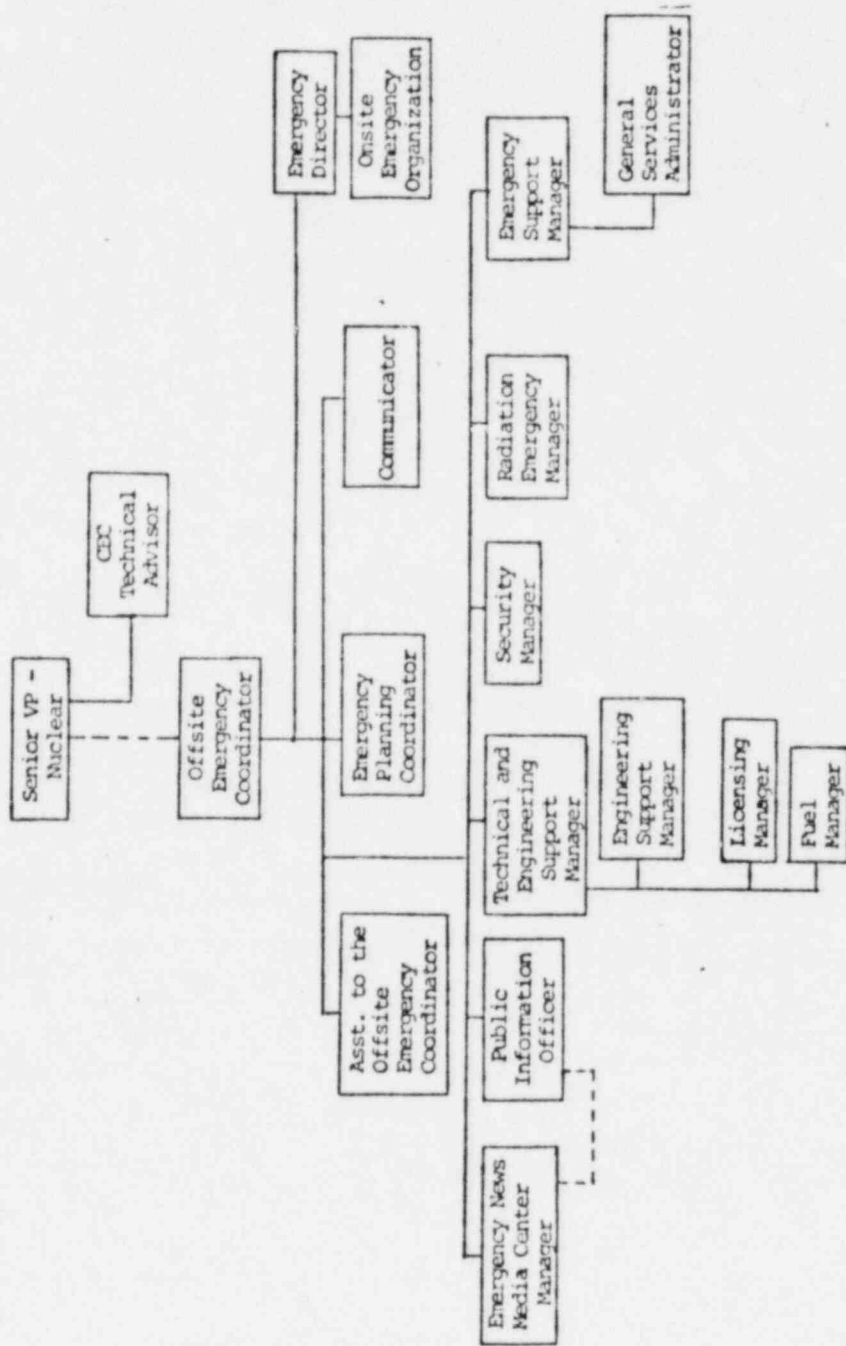
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OFFSITE EMERGENCY ORGANIZATION FLOWCHART



Proc. No. 6.7

Rev. No. 1

Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE

TRAINING AND DRILLS

NON-SAFETY RELATED

Prepared: [Signature]

Reviewed: [Signature] Reviewer      [Signature] Section Manager      W.E. Edge for T.E. Reeves, Jr. Manager of Quality Assurance

Reviewed/Approved: [Signature] Manager of Nuclear Services

Reviewed/Approved: [Signature] Assistant Vice President - Nuclear Production

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## TRAINING AND DRILLS

### 1.0 PURPOSE

1.1 The purpose of this procedure is to:

- 1.1.1 establish the GGNS Emergency Plan training requirements as they apply to Offsite Emergency Organization personnel.
- 1.1.2 delineate the administrative controls and procedures for the performance of GGNS Emergency Plan drills and exercises.
- 1.1.3 provide the standard forms to be used during the conduct of GGNS drills and exercises.
- 1.1.4 ensure General Office emergency response personnel are aware of their responsibilities with regard to training and drills and are adequately prepared to effectively perform them in the event of any emergency at GGNS.

1.2 This procedure supersedes CEPP-7, Training and Drills.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

- 2.1.1 Nuclear Production Department Policy and Organization Manual
  - a. 5.2.3.1
  - b. 7.8
- 2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)
  - a. 1.3.7

#### 2.2 Other References

- 2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants



- 2.2.2 GGNS Units 1 and 2 Emergency Plan
- 2.2.3 GGNS Plant Operations Manual, Administrative Procedures
  - a. 10-S-01-23, Emergency Plan Training and Drills
  - b. 10-S-04-4, General Employee Training Program
  - c. 10-S-04-21, Emergency Preparedness Training Program

2.3 Cross-References

3.0 DEFINITIONS

- 3.1 Drill - a supervised instruction period designed to test, develop and maintain skills.
- 3.2 Exercise - an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.

4.0 RESPONSIBILITY

- 4.1 The Emergency Planning Coordinator is responsible for:
  - 4.1.1 coordinating MP&L General Office and offsite support agency training with the Training Superintendent.
  - 4.1.2 scheduling major drills and exercises, in conjunction with the Site Emergency Planning Coordinator.
  - 4.1.3 coordinating development, preparation, conduct and critique of major drills and exercises with the Site Emergency Planning Coordinator and the Training Superintendent, in accordance with reference 2.2.3.a.
- 4.2 Exercise participants and observers are responsible for providing the Emergency Planning Coordinator with their observations on the exercise prior to or during the critique.
- 4.3 The Corporate Health Physicist will be responsible for ensuring participation by General Office radiological personnel in the semi-annual GGNS health physics drills (which may be conducted independently of the annual exercise).



5.0 DETAILS

5.1 Drills and Exercises

5.1.1 Periodic drills and training exercises will be conducted to test the state of emergency preparedness of General Office emergency response personnel. These will normally be conducted in conjunction with GGNS exercises or drills.

5.1.2 General Office involvement in drills and exercises will observe the following periodicity:

- a. Health Physics Drills (semi-annually)
- b. Radiological Monitoring Drills (annually)
- c. All-Agency Radiation Emergency Exercises (annually)
- d. Communications Drills (monthly and/or quarterly)

5.1.3 The Emergency Planning Coordinator will work with the Site Emergency Planning Coordinator and the Training Superintendent to ensure scenarios are developed in accordance with reference 2.2.3.a. | 1

5.1.4 The annual exercise should incorporate the following elements:

- a. Scenarios should vary from year to year so that all major elements of the plan are included in a 5 year period.
- b. Once every 6 years, there should be an exercise between 6:00 p.m. and midnight, and another between midnight and 6:00 a.m.
- c. Exercises should be conducted under various weather conditions.
- d. Some exercises should be unannounced.

5.1.5 Special drills involving General Office only emergency response will be approved by the Assistant Vice President - Nuclear Production.



5.1.6

The following is the sequence of events for the development and implementation of drills and exercises:

- a. Determine the nature of the drill/exercise to be held, and the date and time it will occur.
- b. Develop the scenario for the drill/exercise.
- c. Assign and brief observers who will critique the drill/exercise.
- d. Distribute drill/exercise scenarios and discuss with observers.
- e. Conduct the drill/exercise.
- f. Conduct a post-exercise critique to collect observers' comments and identify areas of deficiency.
- g. Prepare a list of items to be resolved before the next drill or exercise, based on reviewed comments, critique sheets, recommendations, and personal observations.

5.1.7

For those exercises which are subject to NRC review, the following schedule lists the information to be submitted to the NRC prior to conducting the exercise:

- |    |                    |   |
|----|--------------------|---|
| a. | 75 days in advance | Description of scope of exercise and objectives to be fulfilled.  |
| b. | 45 days in advance | Detailed description of exercise scenario and anticipated licensee actions.   |
| c. | 20 days in advance | Complete controller packages which contain the information to be supplied to the observers of the exercise along with that supplied to the players as the scenario is unfolded. |

1



d. Mailing address for this information is as follows:

(1) Items 5.1.7.a, b and c  
J. Philip Stohr  
USNRC, Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

(2) Items 5.1.7.a and b.  
Brian K. Grimes, Director  
USNRC  
Division of Emergency Preparedness  
Office of Inspection and Enforcement  
Washington, D.C. 20555

## 5.2 Emergency Response Training

- 5.2.1 All MP&L Emergency Response Personnel shall participate in:
- a. The General Employee Training Program in accordance with reference 2.2.3.b.
  - b. The Emergency Preparedness Training Program in accordance with reference 2.2.3.c.
- 5.2.2 All MP&L Emergency Response Personnel who may be expected to enter the controlled area at GGNS shall participate in Rad Worker II Training in addition to training outlined in step 5.2.1. above.
- 5.2.3 The Emergency Planning Coordinator shall be responsible for furnishing the GGNS Training Supervisor with copies of the Corporate and Non-Utility Training Records. The original Training Records shall be maintained in a central file by Nuclear Services.
- 5.2.4 The Emergency Planning Coordinator will be responsible for offering offsite (non-utility) support organizations with the first part (Emergency Preparedness) of the Emergency Preparedness Training Program, reference 2.2.3.c.

## 6.0 APPENDICES

None



TRAINING AND DRILLS  
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Rev. No. 0

Date 3/2/82

CORPORATE EMERGENCY PLAN PROCEDURE

DOCUMENTATION AND RECORD KEEPING

NON-SAFETY RELATED

Prepared: Paul Benedict

Reviewed: L.R. McKay John Schuman W.E. Edge for T.E. Reeves Jr.  
Reviewer Section Manager Manager of Quality Assurance

Reviewed/Approved: L.F. Dow  
Manager of Nuclear Services

Reviewed/Approved: J.M. Landrum  
Assistant Vice President - Nuclear Production

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DOCUMENTATION AND RECORD KEEPING  
PROCEDURE NO. 6.8

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## DOCUMENTATION AND RECORD KEEPING

### 1.0 PURPOSE

- 1.1 The purpose of this procedure is to provide guidance on the means for documenting events during an actual or simulated emergency at GGNS, and to provide official documentation of an emergency to be used to reconstruct the emergency for critique or analysis.
- 1.2 This procedure supersedes CEPP-8, Documentation and Record Keeping.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

#### 2.2 Other References

2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 GGNS Units 1 and 2 Emergency Plan

#### 2.3 Cross-References

### 3.0 DEFINITIONS

- 3.1 CEC - Corporate Emergency Center
- 3.2 EOF - Near-Site Emergency Operations Facility
- 3.3 OEC - Offsite Emergency Coordinator



#### 4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Offsite Emergency Coordinator (OEC) to maintain the OEC Logbook throughout the emergency. This will permit rapid, accurate reconstruction of the Emergency.
- 4.2 It is the responsibility of all offsite emergency communicators to be familiar with the use of GGNS emergency message forms (Attachments I and II).
- 4.3 It is the responsibility of the EOF Communicator to act as CEC Communicator in the early stages of an Alert at GGNS, until the CEC Communicator arrives.
- 4.4 It is the responsibility of the EOF Communicator to maintain the CEC Logbook until the CEC Communicator assumes his post.
- 4.5 It is the responsibility of the CEC Communicator to maintain the CEC Logbook upon formal turnover of responsibilities from the EOF Communicator.
- 4.6 It is the responsibility of the EOF Communicator to maintain the EOF Logbook throughout the activation and operation of the EOF.
- 4.7 It is the responsibility of the members of the Offsite Radiological Monitoring Teams to maintain their respective logbooks throughout monitoring operations.
- 4.8 It is the responsibility of the EOF Communicator to collect the offsite logbooks upon termination of the emergency; copy all portions pertaining to the emergency; provide these copies in a timely manner to the Chief Executive Officer, Senior Vice President - Nuclear, and Assistant Vice President - Nuclear Production for their review; and return the logbooks to their respective holders.
- 4.9 It is the responsibility of the Emergency Planning Coordinator to maintain copies of current Corporate Emergency Plan Procedures in the CEC and EOF, to make these copies available to personnel during an emergency, and to compile, after an emergency, a master set of procedures, which show the completed checklists, which were filled out by the various responding emergency personnel in their copies of the procedures.

#### 5.0 DETAILS

##### 5.1 The OEC Logbook shall:

- 5.1.1 Be official documentation of events during an emergency.



- 5.1.2 Include both those events reported by the TSC and all other events which affect the Offsite Emergency Organization.
- 5.1.3 Be complete enough to be used to reconstruct events.
- 5.1.4 Include the following events and data:
  - a. significant events and the times at which they occur
  - b. reports made to the Offsite Emergency Coordinator (plant status, radiological conditions, etc.)
  - c. notifications made
  - d. evacuations made
  - e. meteorological conditions
  - f. reentry efforts
  - g. recovery efforts
  - h. any other item(s) deemed necessary or pertinent by the Offsite Emergency Coordinator

5.2 Emergency message forms (Attachment I) will be used to document all incoming and outgoing messages as approved by the Offsite Emergency Coordinator and received or transmitted by the Communicator. The forms are designed so that, in the event of rapidly escalating emergencies, they may be used chronologically as either the OEC Logbook or the Communicator Logbook. Attachment II indicates the format to be followed in transmitting major emergency updates to offsite agencies.

5.3 The Communicator Logbooks (both for the CEC and EOF) shall:

- 5.3.1 Contain a record of all incoming and outgoing messages received or transmitted by the Communicator.
- 5.3.2 Include any other item(s) deemed necessary or pertinent by the CEC or EOF Communicator (see 5.1.4). (Attachment III)



5.4 The Offsite Radiological Monitoring Team Logbook(s) shall:

5.4.1 Contain a record of all data collected in the field

5.4.2 Include any actions performed during collection of data

5.4.3 Include any other item(s) deemed necessary or pertinent by the Radiation Emergency Manager.

5.5 Offsite Agency Notification

5.5.1 Data reported to offsite agencies will be transmitted, as much as possible, in an order similar to that indicated on the Initial and Follow-up Notification form (Attachment II).

6.0 APPENDICES

6.1 Attachment I - GGNS Emergency Message Form

6.2 Attachment II - Sample Emergency Notification Form

6.3 Attachment III - Plant Status Updates



# GGNS EMERGENCY MESSAGE FORM No. 00

<p><input type="checkbox"/> <b>INCOMING</b></p> <p>From: <input type="checkbox"/> CEC            <input type="checkbox"/> CCSO  <input type="checkbox"/> ENMC           <input type="checkbox"/> LNE  <input type="checkbox"/> EOF             <input type="checkbox"/> MEMA  <input type="checkbox"/> OSC            <input type="checkbox"/> MHP  <input type="checkbox"/> TSC            <input type="checkbox"/> PGPD  <input type="checkbox"/> CCCD          <input type="checkbox"/> TPEP  <input type="checkbox"/> OTHER _____  NAME: _____</p>	<p><input type="checkbox"/> <b>OUTGOING</b></p> <p>To: <input type="checkbox"/> CEC            <input type="checkbox"/> CCSO  <input type="checkbox"/> ENMC           <input type="checkbox"/> LNE  <input type="checkbox"/> EOF             <input type="checkbox"/> MEMA  <input type="checkbox"/> OSC            <input type="checkbox"/> MHP  <input type="checkbox"/> TSC            <input type="checkbox"/> PGPD  <input type="checkbox"/> CCCD          <input type="checkbox"/> TPEP  <input type="checkbox"/> OTHER _____  MSG ORIGINATOR: _____</p>
--	--

DATE \_\_\_\_\_ TIME OF MESSAGE: \_\_\_\_\_ COMMUNICATOR: \_\_\_\_\_

TIME OF EVENT \_\_\_\_\_ (24 hr.)

MESSAGE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

COORDINATOR USE ONLY <input type="checkbox"/> Action <input type="checkbox"/> PRIORITY <input type="checkbox"/> Information Only
Required Action: _____ _____ _____
Routing: <input type="checkbox"/> Tech./Eng <input type="checkbox"/> Emer. Spt. <input type="checkbox"/> Rad. Assess. <input type="checkbox"/> P.R. <input type="checkbox"/> Security <input type="checkbox"/> _____

Reply: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Message approved for release to  CEC     ENMC     EOF     OSC     TSC     CCCD     CCSO     LNE  
 MEMA     MHP     PGPD     TPEP     All Offsite Agencies     Other \_\_\_\_\_

Offsite Emergency Coordinator: \_\_\_\_\_  
 Time Transmitted: \_\_\_\_\_ (24 hr.)                      Message Acknowledged: \_\_\_\_\_ (Comm. initials)

NOTE - Communicate with a Dress - 700 After 6:00 a.m. - 6:00 p.m. - 7:00 p.m. - 8:00 p.m. - 9:00 p.m. - 10:00 p.m. - 11:00 p.m. - 12:00 a.m.





Message No. \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

SAMPLE

FOLLOW-UP NOTIFICATION

This is \_\_\_\_\_ with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
(Name) (Site)

Events are such that a/an: Unusual Event Site Emergency  
Alert General Emergency

was declared at \_\_\_\_\_ hrs.

This classification is (Escalated, De-escalated, Unchanged) from the last report.

THE FOLLOWING INFORMATION APPLIES:

SECTION A: Radiological Release Information

[This information is: A) New Information B) Unchanged C) N/A ]

- (1) Type of Radiological Release: Liquid; Gaseous; Other \_\_\_\_\_
- (2) Initial Time of Release \_\_\_\_\_ hrs.
- (3) Release Terminated: NO; YES TIME TERMINATED \_\_\_\_\_ hrs.
- (4) Duration of Release: KNOWN \_\_\_\_\_ or TOTAL PROJECTED \_\_\_\_\_  
(hours) (hours)
- (5) Release Rate: Monitored \_\_\_\_\_ Ci/sec or Calculated \_\_\_\_\_ Ci/sec
- (6) Release Elevation: Ground Level; Elevated

SECTION B: Meteorology

- (1) Wind: Velocity \_\_\_\_\_ mph  
Direction from \_\_\_\_\_ into Sector(s) \_\_\_\_\_  
(degrees) (A-R)
- (2) Stability Class: A B C D E F G
- (3) Precipitation: None; Rain; Sleet; Snow



DOCUMENTATION AND RECORD KEEPING  
ATTACHMENT II to Procedure 6.8

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SECTION C: Offsite Radiological Dose Consequences

[This is: A) New Information B) Unchanged C) N/A ]

(1) <u>Projected Whole Body Dose At:</u>	<u>Dose Rate</u>	<u>Projected Duration</u>	<u>Projected Dose</u>
A) Site Boundary (696 Meters)	_____ mR/hr	_____	_____ mRem
B) 2 Miles	_____ mR/hr	_____	_____ mRem
C) 5 Miles	_____ mR/hr	_____	_____ mRem
D) 10 Miles	_____ mR/hr	_____	_____ mRem

(2) <u>Projected Thyroid Dose Commitment At:</u>	<u>Projected Dose</u>
A) Site Boundary	_____ mRem
B) 2 Miles	_____ mRem
C) 5 Miles	_____ mRem
D) 10 Miles	_____ mRem

(3) Affected Sectors \_\_\_\_\_

SECTION D: Emergency Response Considerations

[This is: A) New Information B) Unchanged C) N/A ]

(1) Recommended Action: None; Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) Licensee Emergency Actions Underway: None; Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(3) Request for Offsite Support: None; Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(4) Prognosis for Worsening or Termination of Event Based on Plant Information: None; Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(5) Other Comments: None; Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





30 MINUTE PLANT STATUS UPDATES

NEXT UPDATE DUE: \_\_\_\_\_  
DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

Rx Status

Power \_\_\_\_\_ %  
Water Level \_\_\_\_\_ in.  
Pressure \_\_\_\_\_ PSIG  
RVCU \_\_\_\_\_ (on/off)  
Off gas \_\_\_\_\_ Train

Drywell Status

Pressure \_\_\_\_\_ PSIG  
Temperature \_\_\_\_\_ °F  
Rad Levels \_\_\_\_\_ R/hr  
H<sub>2</sub> Conc. \_\_\_\_\_ %

Containment Status

Pressure \_\_\_\_\_ PSIG  
Temperature \_\_\_\_\_ °F  
Rad Levels \_\_\_\_\_ R/hr  
H<sub>2</sub> Conc. \_\_\_\_\_ %

OFFSITE POWER \_\_\_\_\_ Avail/Not Avail.

Suppression Pool

Temperature \_\_\_\_\_ °F  
Level \_\_\_\_\_ ft \_\_\_\_\_ in

ESF EQUIPMENT

Div I

Diesel 11 \_\_\_\_\_  
LPCS \_\_\_\_\_  
SSW A \_\_\_\_\_  
RHR A \_\_\_\_\_  
CPD A \_\_\_\_\_  
SBGT A \_\_\_\_\_  
H<sub>2</sub> Recombiner A \_\_\_\_\_  
CGC A \_\_\_\_\_

Div II

Diesel 12 \_\_\_\_\_  
RHR B \_\_\_\_\_  
SSW B \_\_\_\_\_  
RHR C \_\_\_\_\_  
CPD B \_\_\_\_\_  
SBGT B \_\_\_\_\_  
H<sub>2</sub> Recomb B \_\_\_\_\_  
SLC \_\_\_\_\_  
CGC B \_\_\_\_\_

Div III

Diesel 13 \_\_\_\_\_  
HPCS \_\_\_\_\_  
SSW C \_\_\_\_\_

METEOROLOGICAL

STATUS:

Wind Direction:  
From \_\_\_\_\_ ° to \_\_\_\_\_ °  
(INTO Sector \_\_\_\_\_)

Wind Speed: \_\_\_\_\_ mph  
Stability Class: \_\_\_\_\_

KEY: + = Available  
- = Not Available

Op = operating, or mode of operation

BATT A

ADS A \_\_\_\_\_  
RCIC \_\_\_\_\_

BATT B

ADS B \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Proc. No. 6.9

Rev. No. 0

Date 3/2/82

CORPORATE EMERGENCY PLAN PROCEDURE

RECOVERY AND REENTRY

NON-SAFETY RELATED

Prepared: [Signature]

Reviewed: [Signature] Reviewer  
[Signature] Section Manager  
[Signature] W.E. Edge for T.E. Reeves, Jr. Manager of Quality Assurance

Reviewed/Approved: [Signature]  
Manager of Nuclear Services

Reviewed/Approved: [Signature]  
Assistant Vice President - Nuclear Production

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RECOVERY AND REENTRY  
PROCEDURE NO. 6.9

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## RECOVERY AND REENTRY

### 1.0 PURPOSE

1.1 The purpose of this procedure is to provide guidance for:

1.1.1 initial recovery operations prior to establishment of the Long Term Recovery Organization, in the event that extended actions are necessary to return GGNS to its normal operating status.

1.1.2 a smooth transition from the emergency action phase to the recovery phase of an emergency at GGNS.

1.2 This procedure supercedes CEPP-9, Recovery and Reentry.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

#### 2.2 Other References

2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 GGNS Units 1 and 2 Emergency Plan

2.2.3 GGNS Plant Operations Manual, Administrative Procedures

- a. 10-S-01-22, Reentry and Recovery

#### 2.3 Cross-References



3.0 DEFINITIONS

None

4.0 RESPONSIBILITY

- 4.1 The Offsite Emergency Coordinator is responsible for directing the recovery/reentry efforts of the Offsite Emergency Organization.
- 4.2 The Offsite Emergency Organization will support the recovery/reentry efforts of the Onsite Emergency Organization, as detailed in reference 2.2.3.a. This support will be coordinated by the Offsite Emergency Coordinator and the Emergency Director.

5.0 DETAILS

5.1 Instructions/Checklist

Initial/Date

5.1.1 The Offsite Emergency Coordinator will:

- a. After being notified by the Emergency Director that: a) radiation levels in all in-plant areas are stable or decreasing with time; b) releases of radioactive material to the environment from the plant are under control or have ceased; c) any fire or similar condition is controlled or has ceased; and that recovery actions are underway, inform the Corporate Emergency Center, Emergency News Media Center, and EOF Staff of the establishment of recovery operations. \_\_\_\_\_
- b. Before de-escalating the emergency classification, discuss existing offsite radiological conditions with key officials in the Mississippi and Louisiana State EOCs (normally, the Director, Radiological Health Branch in Mississippi and the Louisiana Nuclear Energy Division Administrator). If it is determined that offsite conditions warrant maintaining a higher classification than is necessary under 5.1.1.a, appropriate notifications will be made as under 5.1.1.a. \_\_\_\_\_



RECOVERY AND REENTRY  
PROCEDURE NO. 6.9

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c. Ensure necessary reports to NRC describing the incident are generated.

Initial/Date

\_\_\_\_\_

d. Ensure that all necessary recovery/reentry actions are being taken to place the plant in an acceptable long term safe condition.

\_\_\_\_\_

6.0 APPENDICES

None



Proc. No. 6.10

Rev. No. 1

Date 7/8/82

CORPORATE EMERGENCY PLAN PROCEDURE

ACTIVATION OF EMERGENCY FACILITIES

NON-SAFETY RELATED

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## ACTIVATION OF EMERGENCY FACILITIES

### 1.0 PURPOSE

1.1 The purpose of this procedure is to indicate the method of activating the following GGNS Emergency Response Facilities:

1.1.1 Corporate Emergency Center (CEC)

1.1.2 Near-Site Emergency Operations Facility (EOF)

1.2 This procedure supercedes CEPP-10, Activation of Emergency Facilities.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

#### 2.2 Other References

2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 NUREG-0696, 2/81, Functional Criteria for Emergency Response Facilities

2.2.3 GGNS Units 1 and 2 Emergency Plan

2.2.4 Corporate Emergency Plan Procedures

- a. 6.5, Notification and Assignment of Offsite Emergency Organization Position

#### 2.3 Cross-References



### 3.0 DEFINITIONS

- 3.1 CEC - Corporate Emergency Center; located in the Emergency Room in the Electric Building basement in Jackson. The CEC is the initial focal point for all General Office response; it is activated at an Alert emergency classification, is the assembly point for an initiating Site Emergency or General Emergency classification, and remains manned throughout any emergency at GCNS.
- 3.2 EOF - Near-Site Emergency Operations Facility; automatically staffed at a Site Emergency classification; may also be staffed at an Alert (at the discretion of the Offsite Emergency Coordinator). Remains activated until emergency terminates or de-escalates sufficiently to require no offsite support.
- 3.3 OEC - Offsite Emergency Coordinator

### 4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Offsite Emergency Coordinator (OEC), as designated in reference 2.2.4.a. to implement this procedure in the event of an Alert, Site Emergency, or General Emergency at GCNS.
- 4.2 It is the responsibility of the OEC to direct the activation of the CEC and EOF.
- 4.3 It is the responsibility of the OEC to make operational decisions involving the safety of Offsite Emergency Organization personnel.
- 4.4 The OEC will assume the responsibility for ongoing emergency communications with offsite agencies and for contacting outside (non-utility) organizations when the EOF is manned. The OEC may assign this duty to the EOF communicator, or another individual in the EOF.
- 4.5 The OEC will be responsible for the overall emergency response effort and will be the central figure for the Offsite Emergency Organization. He shall provide guidance to the Emergency Director as appropriate. The OEC will be responsible for assuring continuity of technical, administrative, and material resources throughout the emergency.





- 4.6 It is the responsibility of the Radiation Emergency Manager to issue dosimetry from the CEC prior to the departure of emergency personnel for the EOF.
- 4.7 It is the responsibility of all reporting emergency response personnel to get office supplies needed for the performance of their duties from the GGNS storage cabinets in the CEC and EOF.
- 4.8 It is the responsibility of the Emergency Support Manager to ensure the storage cabinets are inventoried and restocked as needed as soon as feasible after termination of the emergency.

5.0 DETAILS

5.1 Instructions/Checklist

Initial/Date

5.1.1 Activation of the CEC

The Offsite Emergency Coordinator will, upon notification of an Alert at GGNS:

- a. order the notification of the Offsite Emergency Organization to stand by or to staff the CEC (Attachment I), depending on the severity of the Alert, in accordance with reference 2.2.4.a. \_\_\_\_\_
- b. upon staffing of the CEC, request the Emergency Planning Coordinator to conduct a personnel accountability summary for emergency response personnel (Attachment II). \_\_\_\_\_
- c. direct the Communicator to conduct a test of his communications equipment prior to officially informing the TSC of CEC activation (Attachment III). \_\_\_\_\_
- d. direct the General Services Administrator to conduct a status check of CEC communications equipment (Attachment III). \_\_\_\_\_



- |   |                     |
|---|---------------------|
|   | <u>Initial/Date</u> |
| e. conduct an organizational briefing for emergency response personnel who are present regarding the status of the emergency.   | _____               |
| f. direct the Communicator to inform the TSC of the official activation of the CEC.   | _____               |
| g. upon escalation of conditions during an Alert, or upon escalation to the Site Emergency, order activation of the EOF (if the OEC leaves for the EOF prior to necessitating its full activation, he will designate an individual to have the authority to make this declaration should communication with the CEC be broken). | _____               |

5.1.2

Activation of the EOF

The Offsite Emergency Coordinator will, upon notification of a Site Emergency of General Emergency (or an Alert of sufficient severity):

- |   |       |
|---|-------|
| <p>a. Instruct EOF personnel in the CEC to report to the EOF (see 5.1.1.f.) with necessary equipment (Attachment IV). In the event the CEC is not yet activated, instruct personnel to report to the CEC for initial assembly, accountability and dosimetry issue before reporting to the EOF.</p>  | _____ |
| <p>b. Order the Communicator to request the Plant Access Administrator (Training Department) begin EOF "set-up" and complete Attachment VI (NOTE: should the EOF be activated after the Site Access Point, or should Training personnel be otherwise occupied, EOF set-up will be performed by personnel from Nuclear Plant Engineering or Site Access Point). (Attachment V)</p> | _____ |



Initial/Date

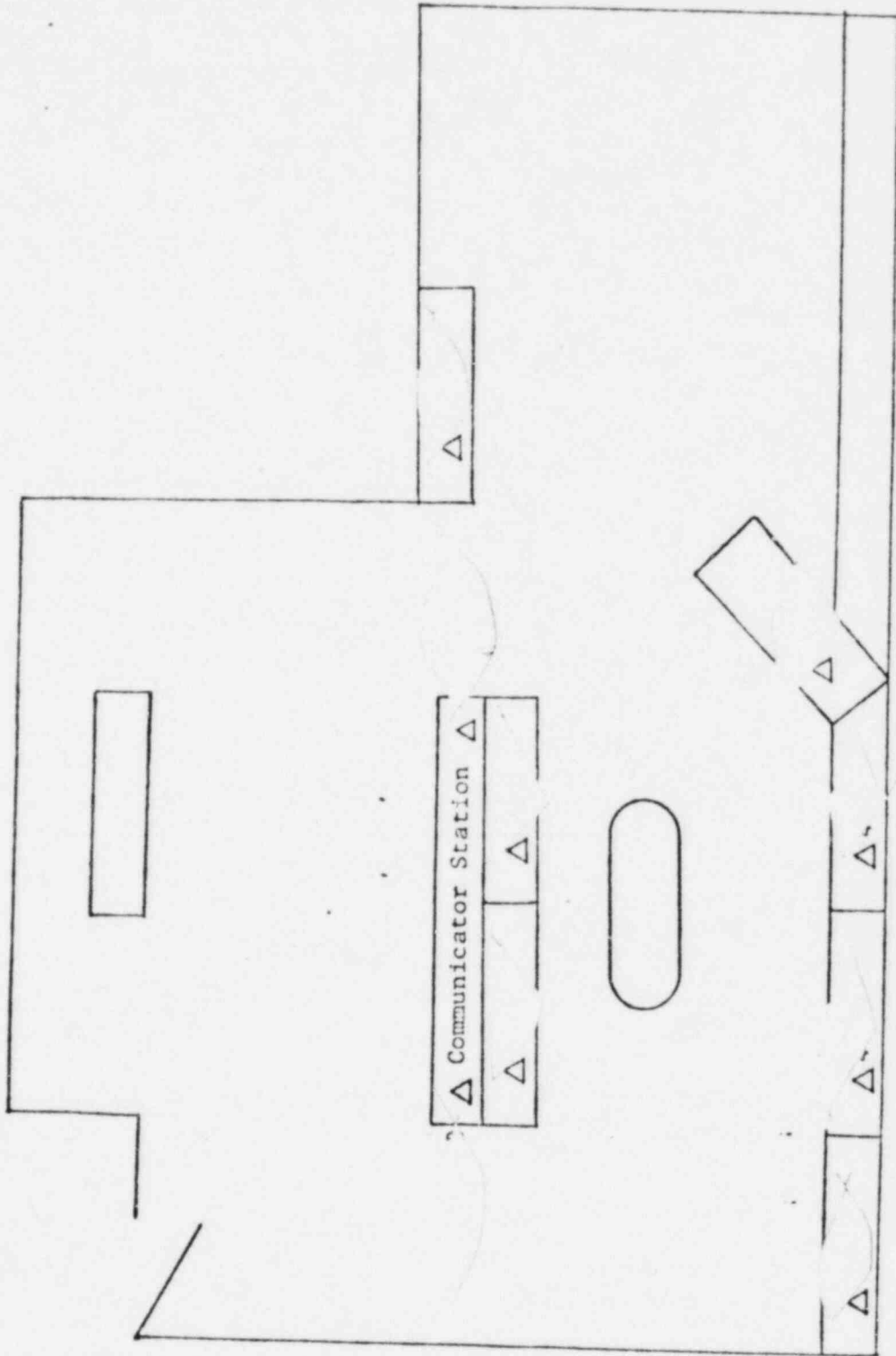
- c. Take the following with him to the EOF: Offsite Emergency Coordinator's Logbook, EOF Communicator, Communicator's Logbook. \_\_\_\_\_
- d. Upon arrival at the EOF, receive copy of communications equipment checkout (Attachment VI). \_\_\_\_\_
- e. Direct the Emergency Planning Coordinator to conduct personnel accountability (Attachment II) as soon as feasible. \_\_\_\_\_
- f. Request turnover briefing from Emergency Director. \_\_\_\_\_
- g. Upon completion of 5.1.2.d, e., and f., direct the Communicator to inform the TSC that the EOF is activated and that it will assume control of communications with outside agencies and offsite monitoring activities. \_\_\_\_\_
- h. Conduct briefing of EOF staff regarding emergency status. \_\_\_\_\_

6.0 APPENDICES

- 6.1 Attachment I - CEC Layout
- 6.2 Attachment II - Personnel Accountability Summary
- 6.3 Attachment III - CEC Operational Checklist
- 6.4 Attachment IV - Interim EOF Layout
- 6.5 Attachment V - Interim EOF Set-Up Checklist
- 6.6 Attachment VI - Interim EOF Operational Checklist



CEC LAYOUT



△ MPSL Telephone Extensions



ACTIVATION OF EMERGENCY FACILITIES  
ATTACHMENT I to Procedure 6.10

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PERSONNEL ACCOUNTABILITY SUMMARY

<u>Position</u>	<u>Individual Assuming Position</u>	<u>Alternate Notified</u>
1) Offsite Emergency Coordinator	_____	_____
2) Asst. to Offsite Emerg. Coor.	_____	_____
3) Emergency Planning Coordinator	_____	_____
4) EOF Communicator	_____	_____
5) CEC Communicator	_____	_____
6) Public Information Officer	_____	_____
7) Technical/Engr. Support Manager	_____	_____
8) Engineering Support Manager	_____	_____
9) Licensing Manager	_____	_____
10) Fuel Manager	_____	_____
11) Security Manager	_____	_____
12) Radiation Emergency Manager	_____	_____
13) Emergency Support Manager	_____	_____
14) General Services Administrator	_____	_____

Status of absent emergency personnel: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

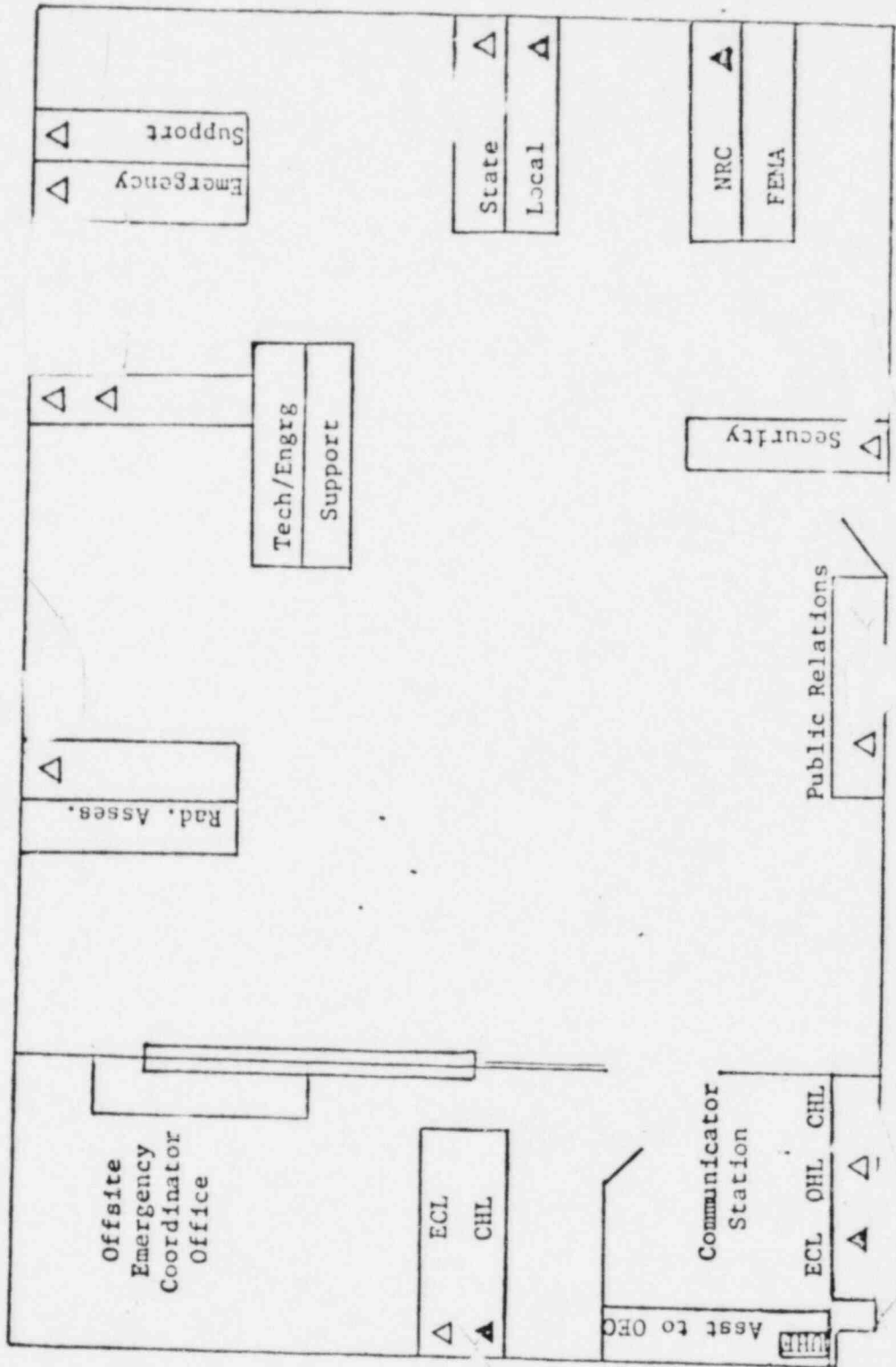
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INTERIM EOP LAYOUT



△ GCNS Extensions

▲ Private Line (Unlisted) Telephones



INTERIM EOF SET-UP CHECKLIST

Completed (    )

- |   |       |
|---|-------|
| 1. Move tables into correct arrangement   | _____ |
| 2. Post placards identifying various tables   | _____ |
| 3. Plug telephones into corresponding jacks   | _____ |
| 4. Operationally test telephones  | _____ |
| 5. Place telephones on appropriate tables   | _____ |
| 6. Complete EOF Operational Checklist and place on Offsite Emergency Coordinator desk | _____ |
| 7. Post telephone number cards <u>over tables</u>                                     | _____ |
| 8. Hang status boards in proper location  | _____ |
| 9. Locate wooden-backed maps (3) at Radiological Assessment Table                     | _____ |
| 10. Stage foam backed maps in Offsite Emergency Coordinator (ac) Office               | _____ |
| 11. Place marking pens by status boards and whiteboard                                | _____ |







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CORPORATE EMERGENCY PLAN PROCEDURE  
EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
NON-SAFETY RELATED

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## EMERGENCY ACTION LEVELS/CLASSIFICATIONS

### 1.0 PURPOSE

- 1.1 The purpose of this procedure is to provide a means to classify an event or condition at GGNS into one of four emergency classifications as described in reference 2.2.1.
- 1.2 This procedure supercedes CEPP-11, Emergency Action Levels/Classifications.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

#### 2.2 Other References

2.2.1 GGNS Units 1 and 2 Emergency Plan

2.2.2 GGNS Plant Operations Manual, Administrative Procedures

- a. 10-S-01-1, Activation of Emergency Plan

#### 2.3 Cross-References

### 3.0 DEFINITIONS

None

### 4.0 RESPONSIBILITY

- 4.1 All personnel assigned to the Offsite Emergency Organization are responsible for familiarity with the contents of Attachment I to this procedure to allow ready correlation of emergency conditions at GGNS with the appropriate Emergency Action Level and emergency classification.



5.0 DETAILS

5.1 Use Attachment I to determine an Emergency Action Level and emergency classification appropriate to the emergency condition at GGNS.

5.2 After classification, initiate the appropriate Corporate Emergency Plan Procedure to provide for mobilization of the necessary emergency organizations and other actions to be taken to properly react to the situation.

6.0 APPENDICES

6.1 Table 1 - Emergency Classifications





EMERGENCY CLASSIFICATIONS TABLE 1

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
1. Safety System Functions	1. ECCS initiated and injected into reactor vessel	1. Low Reactor Water Level a. -41.6" Activate: HPCS RCIC  OR  2. High Drywell Pressure a. 1.89 psig  Activate: HPCS LPCS LPCI (RHR, I & II)  OR  3. Manual initiation and injection into vessel	Unusual Event
	2. Failure of a safety or relief valve to close	1. Relief valve(s) open as indicated by SRV position indicating red light on P601-19C from tail pipe pressure switch(es)  AND  2. Continued increase in suppression pool temperature in proximity to open valve(s)	Unusual Event

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EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
1. Safety System Functions (CONT.)	2. Failure of a safety or relief valve to close (cont.)	OR 3. Relief valve tail pipe temp. element TE-N004 A/W reads abnormally high for plant conditions.	Unusual Event
	3. Loss of primary containment integrity requiring Technical Specification shutdown. (Tech. Specs. 3.6.1.1)	Exceeding the limits specified by Limiting Condition for Operation action statements for: 1. Primary Containment Integrity 3.6.1.1 2. Containment Leakage Rates 3.6.1.2 3. Drywell Bypass Leakage 3.6.2.2 4. Containment Air Locks 3.6.1.3 5. Drywell Air Locks 3.6.2.3 6. Suppression Pool Operability 3.6.3.1 7. Containment and Drywell Isolation Valves 3.6.4	Unusual Event <sup>+</sup>
	4. Loss of secondary containment integrity requiring Technical Specifications shutdown (T.S. 3.6.6.1)	Exceeding the limits specified by Limiting Conditions for Operation action statements for: 1. Secondary Containment Integrity 3.6.6.1	Unusual Event

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EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
1. Safety System Functions (CONT.)	4. Loss of secondary containment integrity requiring Tech. Spec. shutdown (T.S. 3.6.6.1) (cont.)	2. Secondary Containment Automatic Isolation Dampers/Valves 3.6.6.2 3. Standby Gas Treatment Subsystem 3.6.6.3	Unusual Event
	5. Loss of engineered safety feature requiring Tech. Spec. shutdown (T. S. 3.5.1)	Exceeding <u>one</u> of the following Limiting Conditions for Operation (ICO) action statements for:  OR  Entry level conditions met for two of the following Limiting Conditions for Operations: 1. HPCS (High Pressure Core Spray) 2. ADS (Automatic Depressurization System) 3. LPCS (Low Pressure Core Spray) 4. LPCI (Low Pressure Coolant Injection System) 5. Safety Valves < (7) Seven operational 6. Relief Valves < (6) Six operational 7. LoLo Set function < (6) Six operational 8. A.D.S. < (7) Seven operational 9. Containment Spray < 2 Systems operational	Unusual Event

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
1. Safety System Functions (CONT.)	5. Loss of engineered safety feature requiring Tech. Spec. shutdown (T.S. 3.5.1)	10. Emergency Suppression Pool Makeup < 2 Systems operational	Unusual Event
2. Abnormal Primary Coolant Leak Rate	1. Exceeding primary coolant system leak rate Tech. Spec. (Tech. Spec. 3.4.3.2)	1. Greater than 0 pressure boundary leakage 2. 5 gpm unidentified leakage 3. 30 gpm total leakage averaged over 24 hours 4. 1 gpm leakage at a reactor coolant system pressure of 1050 ± 10 psig from any reactor coolant system pressure isolation valve - Table 3.4.3.2-1 5. 2 gpm increase in unidentified leakage within any 4 hour period	Unusual Event
	2. Coolant leak rate greater than 50 gpm with reactor at operating temperature and pressure	1. Unidentified plus identified leakage calculated to be greater than 50 gpm	Alert
	3. Loss of Coolant Accident (LOCA)	1. Low Reactor Water Level - 150.3"  AND 2. Hi Dry Well Pressure 1.89 psig	Site Emergency

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EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
3. Abnormal Primary Coolant Chemistry (T.S. 3.4.4-1)	1. <u>Run Mode Limits</u> Chloride $\geq 0.2$ ppm Conductivity $\geq 1.0$ u mho/cm @ 25° C $\leq 5.6$ pH $\geq 8.6$	1. Exceeding any limit for > 72 hours. 2. 1 yr. accumulated hrs. $\geq 336$ hrs./calendar year 3. Conductivity >10 u mho/cm @ 25°c 4. Chlorides >0.5 ppm	Unusual Event
	2. Startup/Hot Shutdown Limits: Chloride $\geq 0.1$ ppm Conductivity $\geq 2.0$ u mho/cm @ 25° C $\leq 5.6$ pH $\geq 8.6$	1. Exceeding any limit for 48 hr. continuous hrs.	Unusual Event
4. Abnormal coolant temperature/pressure	1. Abnormal reactor coolant pressure	1. Reactor vessel steam dome pressure >1045 psig 2. Rx Thermal Power >25% Rated (958 MWT) and $\leq 785$ psig Dome Pressure or < 10% Core Flow	Unusual Event

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EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
4. Abnormal coolant temperature/pressure (CONT.)	2. Abnormal Reactor Coolant Temperature	<ol style="list-style-type: none"><li>1. Heat up/Cooldown <math>\geq 100^{\circ}\text{F/hr.}</math> as averaged over a 1 hr. period</li><li>2. Rx Vessel Head/Flange <math>\text{Ndt} \leq 70^{\circ}\text{F}</math> with head tensioned</li><li>3. IDLE REACTOR RECIRC PUMP START WITH:<ol style="list-style-type: none"><li>a. <math>\geq 50^{\circ}\text{F } \Delta T</math> Idle Loop To Rx Coolant Temperature</li><li>b. <math>\geq 50^{\circ}\text{F } \Delta T</math> Idle Loop To Run Loop with Flow greater than 50% Rated</li><li>c. <math>\geq 100^{\circ}\text{F } \Delta T</math> Dome Sat. Temp to Bottom Head Drain Line with RWCU Pumps on Service</li></ol></li></ol>	Unusual Event

EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
5. Core Fuel Damage	1. Fuel damage indication	<p>Any of the following:</p> <ol style="list-style-type: none"><li>Off-gas pre-treatment monitor hi alarm at Steady State Power. AND<ol style="list-style-type: none"><li>Increase of 100,000 uCi/sec in 60 min. with Release Rate &lt;75,000 uCi/sec. OR</li><li>15% increase in off-gas at Greater than 75,000 uCi/sec OR</li><li>Rx Run or Startup Power Change <math>\geq</math> 15% Rated in one (1) hour with known leakers.</li></ol></li><li>Laboratory analysis of coolant sample indicates greater than or equal to 0.2 uCi/ml dose equivalent I-131</li></ol>	Unusual Event
	2. Severe loss of fuel cladding	<p>Any of the following:</p> <ol style="list-style-type: none"><li>Off-gas pre-treatment monitor reading greater than 5 x alarm point</li><li>Coolant sample analysis indicates 300 uCi/ml equivalent I-131 or greater</li><li>Main steam line radiation monitor exceeds trip set point</li></ol>	Alert

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EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
5. Core Fuel Damage (CONT.)	3. Degraded core with possible loss of coolant geometry	Both of the following: 1. Reactor water level at top of active fuel core height as indicated on fuel zone level indicator. 2. Very high coolant activity indicated by analysis of sample greater than 300 uCi/ml equivalent I-131	Site Emergency
	4. Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier.	Both of the following: 1. Radiation monitoring teams indicates 50 mR/hr whole body or 250 mR/hr thyroid for 30 minutes. 2. Containment pressure exceeds 11.5 psig for more than 2 minutes.	General Emergency
6. Steam System Leak	1. Main Steam Line break outside of Containment with automatic isolation.	1. M.S.L. Hi Flow 169 psid <u>Main Stm Tunnel:</u> 2. Hi Temp. 180°F 3. Main Steam Tunnel $\Delta T$ 80°F 4. Reactor Depressurization <849# in run mode	Unusual Event

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EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
6. Steam System Leak (CONT.)	2. RCIC Steam Line Break outside of Containment with Automatic Isolation	1. Steam Line Hi Flow $> 300''$ H <sub>2</sub> O <u>RCIC Stm. TNL.</u> 2. Routing Area $> 180^{\circ}\text{F}$ 3. Routing Area Cooler $\Delta T$ $80^{\circ}\text{F}$  <u>RCIC Equip. Rm.</u> 4. Room Hi Temp $190^{\circ}\text{F}$ 5. Room Cooler $\Delta T$ $130^{\circ}\text{F}$  <u>RHR Equip. Rm.</u> 6. Room Hi Temp $175^{\circ}\text{F}$ 7. Room Cooler $\Delta T$ $110^{\circ}\text{F}$ 8. Stm. Line Hi Flow RCIC & RHR $\leq 145''$ H <sub>2</sub>	Unusual Event
	3. MSIV Hi Leakage	Isolation Initiated or Required and Abnormal Pressure Sensed downstream of Isolation Valves	Alert
	4. RCIC Steam Supply Hi Leakage	Isolation Initiated or Required and Abnormal Pressure Sensed downstream of Isolation Valves	Alert

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
6. Steam System Leak (CONT.)	5. Main Steam Line Break Outside of Containment which cannot be isolated with a subsequent release	1. M.S.L. Hi Flow 169 psid  <u>Main Steam Tunnel:</u> 2. Hi Temp. 180°F 3. Cooler $\Delta T$ 80°F 4. Reactor Depressurization < 849# in run mode AND Rupture of Blowout Panels.	Site Emergency
	6. RCIC Steam Line Break Outside of Containment which cannot be isolated with a subsequent release	1. Steam Line Hi Flow 300" H <sub>2</sub> O  <u>RCIC Steam TNL.</u> 2. Routing Area 180°F 3. Routing Area Cooler $\Delta T$ 80°F  <u>RCIC Equipment Room:</u> 4. Room Hi Temp. 190°F 5. Room Cooler $\Delta T$ 130°F AND Rupture of Blowout Panels  <u>RHR Equipment Room:</u> 6. Room Hi Temp. 175°F 7. Room Cooler $\Delta T$ 110°F 8. Steam Line Hi Flow $\leq 145"$ H <sub>2</sub> O AND Rupture of Blowout Panels	Site Emergency

EMERGENCY ACTION LEVELS/CLASSIFICATIONS  
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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
7. Abnormal Effluent  <u>GASEOUS</u>	1. Radiological Effluent Instantaneous Release Rate (Tech. Spec. ) ( Table 3.3.2-2) ( Table 3.3.7.1-1)	1. Hi Hi Radiation Alarm on one or more monitors: a. Radwaste Building Vent Exhaust b. Fuel Handling Vent Exhaust c. Containment Vent Exhaust d. Turbine Building Vent Exhaust  AND  2. Summation of monitors exceeds Tech. Spec. limit OR  3. Results of grab samples performed in accordance with Surveillance Procedure 06-CH-1D17-V-0017, exceed instantaneous release rate	Unusual Event
	2. Radiological Effluent Greater 10 X Tech. Spec. Instantaneous Limits (Tech. Spec. ) ( Table 3.3.2-2) ( Table 3.3.7.1-1)	1. Hi Hi Radiation Alarm on one or more monitors: a. Radwaste Building Vent Exhaust b. Fuel Handling Vent Exhaust c. Containment Vent Exhaust d. Turbine Building Vent Exhaust  2. Summation of monitors exceeds Tech. Spec. limit	Alert

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
7. Abnormal Effluent <u>GASEOUS</u> (CONT.)	For Adverse Meteorology 3. a. Effluent monitors detect levels corresponding to greater than 50 mR/hr whole body (for 30 minutes) b. greater than 500 mR/hr whole body (for 2 minutes), or c. 5 times these levels for thyroid, at the site boundary	Any of the following: 1. Containment post-accident radiation monitor reads greater than $5 \times 10^5$ rem/hr 2. Post accident effluent radiation monitor confirms noble gas and/or iodine release rates corresponding to: 0.1 Ci/sec noble gas (30 minutes) or 500 uCi/sec noble gas (30 minutes) or 1.0 Ci/sec noble gas (2 minutes) or 5000 uCi/sec iodine (2 minutes) 3. Post accident sampling system confirms containment atmosphere noble gas and iodine levels to be greater than: 6.0 Ci/cc noble gas $3 \times 10^{-1}$ uCi/cc iodine 4. Radiation monitoring teams report radiation and iodine concentration readings at the site boundary corresponding to: 50 mR/hr (30 minutes) or 500 mR/hr (2 minutes) or $5 \times 10^{-7}$ uCi/cc Iodine (30 minutes) or $5 \times 10^{-6}$ uCi/cc Iodine (2 minutes)	Site Emergency

EMERGENCY ACTION LEVELS/CLASSIFICATIONS TABLE 1 to Procedure 6.11

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
7. Abnormal Effluent <u>GASEOUS</u> (CONT.)	4. Effluent monitors detect levels corresponding to 1 rem/hr whole body or 5 rem/hr thyroid at the site boundary under ACTUAL meteorological conditions.	1. Post accident effluent radiation monitor confirms noble gas and iodine release rates corresponding to 1 rem/hr whole body or 5 rem/hr thyroid at the site boundary for actual meteorological conditions 2. Radiation monitoring teams report radiation and iodine concentration readings of 1 rem/hr whole body or $1 \times 10^{-5}$ uCi/cc iodine.	General Emergency
8. Abnormal Effluent <u>LIQUID</u>	1. Radiological Effluent Instantaneous Release Rate $\geq$ Set Point but $\leq 10$ times Set Point	For <u>liquid</u> effluent releases, Both of the following: 1. Liquid radwaste effluent monitor to be at release set point. (hi-hi alarm) 2. Isolation valve fails to close.	Unusual Event
	2. Radiological Effluent greater than 10 x Set Point. Instantaneous Limit.	For <u>liquid</u> effluent releases, All of the following: 1. Liquid radwaste effluent monitor hi-hi alarm 2. To be greater than 10 times the release set point 3. Isolation valve fails to close.	Alert

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
9. Major Electrical Failures	1. Total loss of off-site power <u>or</u> loss of onsite AC power capability.	1. 500kv Source Lost AND 2. 115KV Source Lost AND/OR 3. Under voltage on Buses 11R & 12R OR 4. Loss of all Diesel Generators Supplying: Buses: Division I 15AA DG #11 Division II 16AB DG #12 Division III 17AC DG #13	Unusual Event
	2. Total loss of offsite power <u>and</u> loss of all onsite power less than 15 minutes	1. 500KV Source Lost AND 2. 115KV Source Lost AND 3. Under voltage on Buses 11R & 12R AND 4. Loss of all Diesel Generators Supplying Buses: Division I 15AA DG #11 Division II 16AB DG #12 Division III 17AC DG #13	Alert
	3. Total loss of offsite power <u>and</u> loss of all onsite power greater than 15 minutes	1. 500KV Source Lost AND 2. 115KV Source Lost AND/OR 3. Under voltage on Buses 11R & 12R AND	Site Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
9. Major Electrical Failures (CONT.)	3. Total loss of offsite power and loss of all onsite power greater than 15 minutes (cont.)	4. Loss of all Diesel Generators Supplying: Buses: Division I 15AA DG #11 Division II 16AB DG #12 Division III 17AC DG #13	Site Emergency
	4. Total loss of offsite power and loss of all onsite power for extended period of time	1. Potential of core melt over long term.	General Emergency
	5. Loss of onsite E.S.F. D.C. power for less than 15 minutes.	1. Loss of 250 V. and 125 V. D.C. Main Distribution Buses 11DA; and/or 11DB; and/or 11DC	Alert
	6. Loss of onsite E.S.F. D.C. Power for longer than 15 minutes.	1. Loss of 250 V. and 125 V. D.C. Main Distribution Buses 11DA; and/or 11DB and/or 11DC.	Site Emergency
10. Control Room Evacuation	1. Scram Reactor & Evacuate Control Room	1. Required to monitor reactor response to shut-down/cooldown from outside the Control Room.	Alert
	2. Scram Reactor & Evacuate Control Room.	1. Unable to establish verification of Reactor response from outside the Control Room within 15 minutes.	Site Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
11. Fire	1. Fire lasting more than 10 minutes after use of fire extinguishing equipment.	Any of the following: 1. Observation/Notification 2. Fire detection device alarm	Unusual Event
	2. Fire defeating <u>one</u> safety system electrical division.	1. Observation of event.	Alert
	3. Fire compromising the functions of E.S.F. systems.	1. Fire that defeats <u>more than one</u> safety system electrical division.	Site Emergency
12. Plant Shut-down Function	1. Loss of functions needed for plant cold shutdown.	1. Loss of both standby service water loops. 2. Loss of <u>any</u> two of the following: a. Main condenser b. Safety relief valve capability c. RCIC system d. Steam condensing mode of "A" and "B" RHR	Alert
		2. Failure of Control Rods to bring the reactor subcritical (no plant transient).	1. Following valid scram initiation signal with partial control rod insertions. AND 2. Rx still critical or predicted critical.

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
12. Plant Shut-down Function (CONT.)	3. Failure of Control Rods to bring the reactor subcritical.	1. Following valid scram initiation signal, inability to insert sufficient control rods to bring the reactor subcritical. AND 2. Failure of both standby liquid control loops to inject into reactor vessel OR 3. Failure of SIC system to bring reactor subcritical after poison injection	Site Emergency
	4. Transient requiring operation of shut-down systems with failure to scram with continued power generation but no core damage immediately evident.	1. Verification of transient AND 2. Control rods incapable of being inserted to bring reactor subcritical OR 3. SBLC is initiated and injecting	Site Emergency
	5. Transient requiring operation of shut-down systems with failure to scram with continued power generation and core damage immediately evident.	1. Verification of transient AND 2. Control rods incapable of being inserted to bring reactor subcritical AND 3. Failure of both standby liquid control loops to inject into the reactor vessel	General Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
12. Plant Shutdown Function (CONT.)	5. Transient requiring operation of shutdown systems with failure to scram with continued power generation and core damage immediately evident (cont.)	4. Failure of standby liquid control system to bring reactor sub-critical after poison injection  OR	General Emergency
13. Abnormal In-plant Radiation/Airborne Levels	1. Unexpected high radiation or airborne contamination levels greater than 1000 times normal set points.	1. Alarm with recorder verification of area radiation monitor reading greater than 1000 times set point 2. CAM (Continuous Air Monitor) reading greater than 1000 times set point.	Alert
14. Fuel Handling Accident	1. Fuel handling accident with release of radioactivity to Containment Building or to Auxiliary Building.	1. Observation of event. 2. High alarm on one or more fuel handling area radiation monitors and verification on recorder 3. CAM (Continuous Air Monitor) exceeding set points.	Alert
	2. Major damage to more than one spent fuel assembly in Containment or Auxiliary Buildings (e.g., large object damages fuel or water loss below fuel level).	1. Observation of event causing structural damage to more than one fuel assembly.  OR 2. Low water level in spent fuel pool below normal level and unable to restore level to normal	Site Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
14. Fuel Handling Accident (CONT.)	2. Major damage to more than one spent fuel assembly in containment or Auxiliary Buildings (e.g., large object damages fuel or water loss below fuel level). (cont.)	AND 1. High alarm on fuel handling area ventilation radiation monitor OR 2. High alarm on Containment ventilation radiation monitor	Site Emergency
15. Contaminated Injured/Overexposed Personnel	1. Transportation of overexposed and/or contaminated injured individual from site to hospital.	1. Observation of event.	Unusual Event
16. Security Threat	1. Initiation of Security Contingency Plan.	1. Security Threats are handled per Security Plan Procedures.	Unusual Event
17. Hazards to Plant Operations	1. Hazards being experienced or projected with the <u>potential</u> for endangering the plant. a. Onsite aircraft crash or unusual aircraft activity over station. b. Onsite train derailment. c. Onsite explosion	1. Observation of event.	Unusual Event

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
17. Hazards to Plant Operations (CONT.)	1. Hazards being experienced or projected with the <u>potential</u> for endangering the plant (cont.) d. Onsite toxic or flammable gas release that threatens personnel e. Turbine rotating component failure causing rapid plant shutdown.		Unusual Event
	2. Other hazards being experienced or projected which have a significant potential for affecting plant safety: a. Aircraft crash on facility b. Missile impacts on facility with resultant damage.	<u>Any of the following:</u> 1. Observation of an aircraft crash into plant structures 2. Observation of missile impact on plant structures 3. Observation of damage by explosion	Alert

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
17. Hazards to Plant Operations (CONT.)	2. Other hazards being experienced or projected which have a significant potential for affecting plant safety: (CONT.) c. Known explosion at facility resulting in major damage to plant structures or equipment. d. Entry of toxic or flammable gasses into facility area that threatens to render safety related equipment inoperable e. Turbine failure causing casing penetration	4. Observation of warning from offsite verified by detection of gasses (using portable or installed instrumentation) which exist in concentrations which exceed either the limits of flammability or toxicity 5. Observation of event.	Alert
	3. Other hazards being experienced or projected with plant not in cold shutdown. a. Aircraft crash into vital structures	<u>Any of the following:</u> 1. Aircraft crash causing damage or fire in Containment, Auxiliary, Control, or Turbine Buildings 2. Missile impact or explosion causes loss of functions needed for hot shutdown (see step 6 above)	Site Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
17. Hazards to Plant Operations (CONT.)	3. Other hazards being experienced or projected with plant not in cold shutdown. (CONT.) b. Missile or explosion impact on facility rendering severe damage to shutdown equipment c. Entry of toxic or flammable gasses into vital areas	3. Entry of toxic or flammable gasses (confirmed by portable or installed detection equipment readings exceeding limits of toxicity or flammability)	Site Emergency   1
18. Natural Events	1. Natural events near site a. Earthquake b. Tornado c. Hurricane d. Flood	1. Seismic recording system acceleration alarm 2. Tornado observed on site 3. Hurricane warning issued for site vicinity 4. River reaches 100' flood stage level.	Unusual Event   1
	2. Severe natural event near site a. Earthquake greater than OBE level b. Tornado striking facility c. Hurricane winds near design levels d. Flood	Any of the following: 1. Containment Operating Basis Earthquake alarm 2. Observation of event 3. Sustained winds measured greater than 73 mph at station 4. River water reaches the restricted fenced area of the site	Alert   1

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
18. Natural Events (CONT.)	3. Severe natural event near site being experienced or projected with plant not in cold shutdown a. Earthquake greater than SSE levels b. Winds in excess of design levels	Any of the following: 1. Containment Safe Shutdown Earthquake alarm 2. Winds greater than 90 mph onsite (sustained)	Site Emergency
	4. Any major internal or external events (e.g., fires, earthquakes substantially beyond design basis) which could cause massive common damage to plant systems.	1. As determined by Emergency Director	General Emergency
19. Other	1. Seizure of one recirculation pump OR Recirculation pump shaft break	All of the following: 1. Rapid decrease in recirculation loop flow 2. Rapid increase in reactor water level 3. Reactor scram (Hi Water Level)	Unusual Event

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
19. Other (CONT.)	2. Rod drop accident	<u>All of the following:</u> 1. Reactor high flux scram 2. Control rod withdrawal block alarm 3. Control rod drift alarm	Alert
	3. Safety related instrument line break	1. Observation of Event	Unusual Event
	4. Reactor vessel liquid line break outside containment with failure to isolate it. AND Loss of feed water/condensate system capability to make-up.	<u>All of the following:</u> 1. Reactor scram low level 2. CST/RWST/Condenser pumped to minimum levels 3. Reactor water level low/low alarms - 41.6" HPCS initiation 4. No means available to isolate leakage	Site Emergency
	5. Liquid radwaste tank failure	<u>Any of the following:</u> 1. Unexplained decrease of storage tank level as indicated by remote level indication. 2. Excessive pumpage from floor drain pump 3. Radwaste Storage Hi Airborne/Alarm 4. Observation of event	Alert

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
19. Other (CONT.)	6. Significant loss of vital accident assessment or communications capability or loss of effluent monitoring capability requiring shutdown.	Any of the following: 1. Loss of all meteorological equipment. 2. Degradation of offsite communication capability to only one source. 3. Loss of off-gas post-treatment radiation effluent monitors and loss of Radwaste Bldg. vent stack radiation monitors.	Unusual Event
	7. Loss of all annunciators in Control Room & B.O.P. Computer less than 15 minutes.	1. Observation of event. AND 2. Plant is not in cold shutdown. OR 3. Plant transient has not occurred.	Alert
	8. Loss of all annunciators in Control Room & B.O.P. Computer for more than 15 minutes.	1. Loss of Annunciators & loss of B.O.P. and/or Honeywell Computers for more than 15 minutes. AND 2. Plant is not in cold shutdown. OR 3. PLANT TRANSIENT initiated while all Annunciation is lost.	Site Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
19. Other (CONT.)	9. Other plant conditions exist that warrant increased awareness on the part of a plant operating staff or state and/or local offsite authorities or requires plant shutdown under Tech. Spec. requirements or involve other than normal controlled shutdown (e.g., cooldown rate exceeding Tech. Spec. limits, pipe cracking found during operation).	1. Observation of event	Unusual Event
	10. Other plant conditions exist that warrant precautionary activation of Technical Support Center and placing near site emergency operations facility and other key plant personnel on standby.	1. As determined by Emergency Director	Alert

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
19. Other (CONT.)	11. Other plant conditions exist that warrant activation of emergency facilities and radiation monitoring teams <u>or</u> a precautionary notification to the public near the site.	1. As determined by Emergency Director	Site Emergency
	12. Other plant conditions exist that make release of large amounts of radioactivity in a short time possible a. Transient (e.g., loss of onsite power) AND b. Failure of requisite core shutdown systems -NOTE- The above conditions could lead to core melt in several hours with containment failure likely. (More severe consequences if recirc pump trips do not function)	1. The following site emergency conditions exist: Category 2, condition #3 and category 8, conditions #3 & 6.  AND Suppression pool cooling has <u>not</u> been automatically <u>or</u> manually initiated following a 30 minute time lapse.  OR 2. The following alert emergency condition exists: Category 11, condition #2.  AND Conditions are expected to remain in excess of 10 hours.	General Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
19. Other (CONT.)	13. Other plant conditions exist that make release of large amounts of radioactivity in a short time possible a. Small or large LOCA's with failure of ECCS to perform leading to core melt degradation or melt in minutes to hours. Loss of containment integrity may be imminent. b. Small or large LOCA occurs and containment performance is unsuccessful affecting longer term success of the ECCS. Could lead to core degradation or melt in several hours without containment boundary.	Any of the following: 1. The following site emergency conditions exists: Category 2, condition #3 and category 8, conditions #3 and #6 AND Suppression pool cooling has <u>not</u> been automatically <u>or</u> manually initiated following a 30 minute time lapse 2. The following alert emergency condition exists: Category 11, condition #2 AND Conditions are expected to remain in excess of 10 hours.	General Emergency

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EMERGENCY CLASSIFICATIONS TABLE 1 (CONT.)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
19. Other (CONT.)	13. Other plant conditions exist that make release of large amounts of radioactivity in a short time possible (cont.) c. Shutdown occurs but requisite decay heat removal systems (e.g., RHR) or non-safety systems heat removal means are rendered unavailable. Core degradation or melt could occur in about ten hours with subsequent containment failure.		General Emergency

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Rev. No. 0

Date 3/2/82

CORPORATE EMERGENCY PLAN PROCEDURE

PUBLIC INFORMATION

NON-SAFETY RELATED

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PUBLIC INFORMATION

1.0 PURPOSE

1.1 The purpose of this procedure is to define actions that will be taken to keep the public informed in the event of an emergency at GGNS.

1.2 This procedure supercedes CEPP-12, Public Information.

2.0 REFERENCES AND CROSS-REFERENCES

2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

2.2 Other References

2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 GGNS Units 1 and 2 Emergency Plan

2.2.3 Emergency News Media Information Plan for GGNS

2.2.4 Public Education and Information Program for GGNS

2.2.5 Emergency Information Brochure

2.2.6 Informational Services Internal Implementing Procedures, GGNS

2.3 Cross-References



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### 3.0 DEFINITIONS

- 3.1 Alert - The occurrence of an event or events which involve an actual or potential substantial degradation of the level of safety of the plant. The consideration is, as in an Unusual Event, to prepare to cope with potentially more serious emergencies. Alert emergencies may involve a limited release of radioactive material.
- 3.2 CEC - Corporate Emergency Center
- 3.3 CIO - Corporate Information Officer
- 3.4 ENMC - Emergency News Media Center
- 3.5 ENMIP - Emergency News Media Information Plan
- 3.6 EOF - Near-Site Emergency Operations Facility
- 3.7 General Emergency - The occurrence of an event or events which involve actual or imminent core degradation or melting. Large amounts of radioactive material, immediately hazardous to the general public, could be released during a General Emergency.
- 3.8 PIO - Public Information Officer
- 3.9 Site Emergency (Same as Site Area Emergency) - The occurrence of an event or events which involve actual or likely major failures of plant functions needed for protection of the public. The potential for a situation hazardous to the general public is the major concern of the Site Emergency classification. There also exists a significant actual or potential release of radioactive material.
- 3.10 TSC - Technical Support Center
- 3.11 Unusual Event - The occurrence of an event or events which indicate a potential degradation of the level of safety of the plant. Unusual Event emergencies involve minor situations that have the potential to escalate to more serious emergencies. Unusual Events involve no releases of radioactive material in excess of technical specification limits.

### 4.0 RESPONSIBILITY

- 4.1 The Vice President of Informational Services, or his designee, is responsible for assuming the role of Corporate Information Officer (CIO) and for implementing this procedure in the event of an emergency at GGNS.



- 4.2 The Vice President of Informational Services, or his designee, is responsible for directing the activation of the ENMC upon declaration of a Site Emergency at GGNS.
- 4.3 The Public Relations Assistant to the Plant Manager is responsible for preparing initial news releases and providing these releases to the CIO for approval before releasing them to the news media.
- 4.4 The Public Relations Assistant to the Plant Manager, or designee, is responsible for assuming the role of Public Information Officer (PIO) upon reporting to the EOF.
- 4.5 The ENMC Manager is responsible for directing the activation and operation of the ENMC.

5.0 DETAILS

5.1 Instructions/Checklist

Initial/Date

5.1.1 The Corporate Information Officer shall:

- a. Notify additional personnel as needed. \_\_\_\_\_
- b. Set up interim information operations at CEC, if the emergency is an Alert. \_\_\_\_\_
- c. Establish communication link with Public Relations Assistant to the Plant Manager at an Unusual Event or Alert. \_\_\_\_\_
- d. Serve as information spokesman for CEC. \_\_\_\_\_
- e. Establish communication link with PIO from CEC when EOF is activated, unless ENMC is already activated (see 5.1.4.b.) \_\_\_\_\_
- f. Approve information prepared for the news media prior to its release. \_\_\_\_\_



Initial/Date

g. Issue news releases or authorize the Public Relations Assistant to the Plant Manager or PIO to do so. \_\_\_\_\_

h. In the event time does not permit the actions described in 5.1.1.e. or 5.1.1.f., the CIO will be informed as soon as possible of any news release approved and issued by the GGNS Emergency Director. \_\_\_\_\_

i. Direct the ENMC Manager to activate the ENMC. \_\_\_\_\_

5.1.2 The Public Relations Assistant to the Plant Manager, or designee, shall:

a. Proceed to the TSC, if the emergency is an Alert. \_\_\_\_\_

b. Prepare initial press release. \_\_\_\_\_

c. Transmit information in 5.1.2.b to CIO if time permits (see 5.1.1.g.) \_\_\_\_\_

d. Proceed to the EOF and assume the role of PIO as soon as possible when requested to do so by the EOF Communicator. \_\_\_\_\_

5.1.3 The Public Information Officer shall:

a. Report to the EOF on its activation. \_\_\_\_\_

b. Establish and maintain communications link with ENMC Manager. \_\_\_\_\_

c. Prepare news releases and coordinate releases through Offsite Emergency Coordinator and ENMC Manager. \_\_\_\_\_

d. Perform additional functions as directed by the CIO. \_\_\_\_\_



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5.1.4

The ENMC Manager shall, upon notification by the CIO:

Initial/Date

- a. Contact personnel responsible for transporting equipment to the ENMC. \_\_\_\_\_
- b. Establish communications link with PIO in EOF. \_\_\_\_\_
- c. Notify the CIO when ENMC is activated. \_\_\_\_\_
- d. Coordinate press briefings, requests for photographs, tours, etc., through CIO. \_\_\_\_\_
- e. Perform additional functions as directed by the CIO. \_\_\_\_\_

6.0 APPENDICES

None



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CORPORATE EMERGENCY PLAN PROCEDURE

OFFSITE DOSE CALCULATIONS

NON- SAFETY RELATED

Prepared: *Paul Benedict*

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Reviewed/Approved: *L.F. Doherty*  
Manager of Nuclear Services

Reviewed/Approved: \_\_\_\_\_  
Assistant Vice President - Nuclear Production

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OFFSITE DOSE CALCULATIONS  
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## OFFSITE DOSE CALCULATIONS

### 1.0 PURPOSE

1.1 The purpose of this procedure is to provide:

- 1.1.1 methods for offsite dose calculations independent of the ERFIS computer.
- 1.1.2 instruction which will enable fast, accurate dose projections and subsequent recommended protective actions to be made in the event the ERFIS computer is unavailable.

1.2 This procedure supersedes CEPP-14, Offsite Dose Calculations.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

#### 2.2 Other References

2.2.1 NUREG-0654, Rev. 1 - 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 GGNS Units 1 and 2 Emergency Plan

2.2.3 GGNS Plant Operations Manual, Administrative Procedures

- a. 10-S-01-12, Offsite Dose Calculations



2.2.4 USEPA, Manual of Protection Action Guides & Protective Actions for Nuclear Incidents, EPA 520-1-75-001, September 1975, corrected February 1980.

2.3 Cross-References

3.0 DEFINITIONS

- 3.1 CEC - Corporate Emergency Center
- 3.2 EOF - Near-Site Emergency Operations Facility
- 3.3 Q - Rate of Release of Source Material in Ci/s
- 3.4 REM - Radiation Emergency Manager
- 3.5 SAP - Site Access Point
- 3.6  $\bar{u}$  - Average Wind Speed in MPH
- 3.7 X - Airborne Activity Concentration in Ci/m<sup>3</sup>, uCi/cm<sup>3</sup>, or uCi/ml
- 3.8 X/Q - Atmospheric Dispersion Factor in s/m<sup>3</sup>

4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Radiation Emergency Manager (REM), upon activation of the CEC or EOF, to perform offsite dose calculations as necessary.
- 4.2 It is the responsibility of the REM to ensure routine measurements are made of airborne radioactivity and direct radiation dose rate at the EOF and SAP for the purposes of determining personnel exposure.
- 4.3 It is the responsibility of the REM to assume control of offsite monitoring teams and offsite radiological assessment (Attachment I) from the Site Access Point Coordinator upon reporting to the EOF, and to maintain this control as long as the EOF remains activated.



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5.0 DETAILS

5.1 Determination of Atmospheric Stability Class and Meteorological Data

5.1.1 Determine stability class as follows:

- a. Obtain the  $\Delta T$  value from the MET tower monitor. Record this value on Data Sheet 1. Be sure to include plus or minus sign.
- b. Determine the stability class from the table on Data Sheet 1. Record the stability class on Data Sheet 1.

NOTE

If  $\Delta T$  from the MET tower is unavailable, refer to Attachment II.

- c. Record the average wind speed ( $\bar{u}$ ) and direction from the MET tower monitor on Data Sheet 1. (If average wind speed is not available, use an estimated value from instantaneous readings.)

5.2 Source Term (Q)  $\longrightarrow$  Projected Dose

- 5.2.1 Determine the release rates of radioactive noble gases ( $Q_{NG}$ ) and radioiodine ( $Q_I$ ). Record these values on Data Sheet 1.

NOTE

If these values are not available, refer to Attachment III.

- 5.2.2 To determine the downwind concentration of noble gases and radioiodine, refer to the isopleth map overlay for the appropriate stability class and complete the following steps:

- a. Attach the isopleth map overlay to the 10-MILE EPZ MAP with the isopleth centerline in the "TOWARD" wind direction.



- b. Locate the desired downwind distance on the map. Normally, the doses of concern are at the site boundary (696 meters) and at 2, 5 and 10 miles.
- c. If the desired downwind distance is not located on an isopleth line, move INWARD to the next line and record the line number on Data Sheet 1.

NOTE

The line numbers on the isopleth are the ones which are CIRCLED.

- d. Refer to the table on the right of the isopleth overlay and find the X/Q value for the appropriate LINE NUMBER and WIND SPEED. Record this value on Data Sheet 1.

NOTE

All X/Q values on the isopleth table are to be multiplied by  $10^{-6}$ .

- e. Multiply the X/Q value by the NOBLE GAS RELEASE RATE ( $Q_{NG}$ ) to obtain the downwind NOBLE GAS AIRBORNE ACTIVITY CONCENTRATION ( $X_{NG}$ ). Record this value on Data Sheet 1.
- f. Multiply the X/Q value by the RADIOIODINE RELEASE RATE ( $Q_I$ ) to obtain the downwind RADIOIODINE AIRBORNE ACTIVITY CONCENTRATION ( $X_I$ ). Record this value on Data Sheet 1.

5.2.3 To estimate the PROJECTED WHOLE BODY DOSE, refer to Figure 1. To estimate the PROJECTED ADULT (or child) THYROID DOSE, refer to Figure 2.

- a. Estimate the PROJECTED EXPOSURE TIME (duration of exposure at the location of concern). Record this value on Data Sheet 1.

NOTE

If the duration of exposure is initially UNKNOWN, use 2 HOURS for the PROJECTED EXPOSURE TIME until a more accurate estimate can be obtained.



- b. Find the point on the right vertical axis of the appropriate graph corresponding to the calculated AIRBORNE CONCENTRATION.
- c. Move horizontally to the point corresponding to the PROJECTED EXPOSURE TIME and interpolate between the diagonal dose lines to obtain a PROJECTED DOSE.

NOTE

Alternate method to determine WHOLE BODY DOSE: Move horizontally from the right vertical axis to the corresponding point on the left vertical axis on Figure 1. This is the whole body exposure dose rate. Multiply it by the projected exposure time to obtain an integrated dose.

- d. Record the PROJECTED WHOLE BODY DOSE and PROJECTED ADULT THYROID DOSE on Data Sheet 1.

NOTE

Normally the ADULT thyroid dose is determined from the values listed on the left side of the diagonal thyroid dose lines.

5.3 Protective Action Recommendations

- 5.3.1 Refer to Attachment IV for recommended protective actions for a wide range of thyroid and whole body projected doses for the general public and for emergency workers.

6.0 APPENDICES

- 6.1 Attachment I - Landmarks/Sector Reference Points
- 6.2 Attachment II - Determination of Atmospheric Stability Class (MET Tower Data Unavailable)
- 6.3 Attachment III - Contingency Source Terms
- 6.4 Attachment IV - Recommended Protective Actions to Reduce Whole Body and Thyroid Dose from Exposure to a Gaseous Plume



- 6.5 Figure 1 - Whole Body Dose as a Function of Noble Gas Airborne Concentration or Measured Gamma Exposure Rate and Projected Exposure Time
- 6.6 Figure 2 - Thyroid Dose as a Function of Radioiodine Airborne Concentration or Measured Gamma Exposure Rate and Projected Exposure Duration
- 6.7 Data Sheet 1 - Determination of Atmospheric Stability Class and Meteorological Data



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LANDMARKS/SECTOR REFERENCE POINTS

A-1      Met Tower

A-3      Fort Cobun

B-1      Bechtel Front Entrance

B-2      Intersection of Two Gravel Roads About 1 Mile East of Grand Gulf

B-3      House on Hill in Curve Past B-2

B-7      Karnac Ferry Landing (Big Black River Boat Landing)

C-1      Catwalk on Truck By-Pass

C-3      Baxter-Wilson Transmission Lines

C-5      Last House on Ingleside Road Toward Big Black

D-1      Temporary Visitor's Gate

D-3      Warner Tully Road/Upper Grand Gulf Road Intersection

D-4      Warner Tully Camp Entrance

D-5      Drive to R. D. Brown's Past Railroad Bridge on Ingleside Road

D-5      Bonner Beauty Shop (Ingleside)

D-6      Shiloh Baptist Church

D-7      Highway 61 - Ingleside Road Intersection



E-1 Jerusalem Church Below Dotsun's  
 E-2 Delore's  
 E-3 Springhill Church  
 E-4 Entrance to Lake Claiborne  
 E-5 Ashland Church  
 E-6 Highway 61 - Grand Gulf Road Intersection (Nelson's)

F-1 Marked Pole at Southern End of Lake on Waterloo Road  
 F-3 Two Mile Bridge Road - Old Railroad Trestle  
 F-5 MP&L Substation  
 F-6 Natchez Trace - Highway 18 Intersection

G-2 Marked Telephone Pole in Big Curve Past Arnold Acres  
 G-4 Gate in Sharp Curve on Two Mile Bridge  
 G-5 Addison Junior High School Entrance  
 G-6 Port Gibson High School  
 G-6 Chamberlain-Hunt Academy Between Hospital Exit and Entrance  
 G-6 Intersection 547 and Natchez Trace

H-2 Second Oak Tree on Right Past Arnold Acres Trailer Park  
 H-4 Sawmill Approximately 1½ Miles Past First Creek on Rodney Road  
 H-5 Fork at Weathers Road - End of Blacktop Road  
 H-6 Telephone Microwave Tower - Old Colony Road





J-2      Arnold Acres Trailer Park/Buddy's

J-4      Franklin 500 KV Transmission Line

K-1      Marked Pole Past Road to Cassell's

K-5      Greenwood - Rodney Road Intersection

L-1      Glodjo's Residence

L-6      James Creek Bridge

M-5      Coast Guard Beacon Off International Paper Road

N-1      Hamilton Lake Boat Launch

P-1      Vent Pipe on Left Past Iron Gate on Heavy Haul Road

P-1½    Sycamore Trees by Barge Slip

Q-1      Iron Gate on Heavy Haul Road

R-2      Junction of County Road/Grand Gulf Road

R-3      Upper Grand Gulf Landing



DETERMINATION OF ATMOSPHERIC STABILITY CLASS  
(MET Tower Data Unavailable)

INSTRUCTIONS

1. Visually determine the stability class with the aid of the table below.
2. Record the estimated STABILITY CLASS and AVERAGE WIND SPEED ( $\bar{u}$ ) on DATA SHEET 1.
3. Return to STEP 5.2 of the main procedure.

Surface Wind Speed, mph	Day			Night	
	Incoming Solar Radiation			Thinly Overcast	
	Strong	Moderate	Slight	> 1/2 low cloud	> 1/2 cloud
< 4	A	A-B	B		
4-7	A-B	B	C	E	E
7-11	B	B-C	C	D	E
11-13	C	C-D	D	D	D
>13	C	D	D	D	D

The neutral class D should be assumed for overcast conditions during day or night.

"Strong" incoming solar radiation corresponds to a solar altitude greater than 60° with clear skies; "slight" incoming solar radiation corresponds to a solar altitude from 15°-35° with clear skies. Cloudiness will decrease incoming solar radiation and should be considered along with solar altitude when determining solar radiation. Incoming radiation that would be strong with clear skies can be expected to reduce to moderate with broken (5/8 to 7/8 cloud cover) middle clouds and to slight with broken low clouds. Night refers to the period from one hour before sunset to one hour after sunrise.



CONTINGENCY SOURCE TERMS

INSTRUCTIONS

1. This attachment is to be used in the event the release rate of noble gas and/or radioiodine (source term) is unknown (i.e., unmonitored release, release monitor offscale or inoperative, etc.).
2. In the initial phases of the accident, in which case the release rates (Q) are unknown AND results have not yet been received from offsite monitoring teams, use METHOD 1 ("Projected Source Terms").
3. If results have been obtained from offsite monitoring teams, use METHOD 2 ("Field Data  $\longrightarrow$  Source Term").
4. Once the release rates (source terms) have been estimated, proceed to STEP 5.2 of the main procedure to determine projected doses.
5. Update the estimated source terms and projected doses as necessary using field data as received from offsite monitoring teams.



METHOD 1 -

PROJECTED SOURCE TERMS

(under development)



METHOD 2 -

FIELD DATA → SOURCE TERM

- Determine stability class using STEP 5.1 of the main procedure.

STABILITY CLASS = \_\_\_\_\_;  $\bar{u}$  = \_\_\_\_\_ mph, from \_\_\_\_\_° to \_\_\_\_\_°

- Attach the appropriate isopleth map overlay to the 10 MILE EPZ MAP with the isopleth centerline in the "TOWARD" wind direction.

- Direct an offsite monitoring team as close as possible to an isopleth line. Have the team measure whole body dose rate and if possible, obtain an iodine air sample.

ISOPLETH LINE NUMBER = \_\_\_\_\_; DOSE RATE = \_\_\_\_\_ mr/hr  
(circled numbers)

- Refer to the table on the right of the isopleth overlay and find the X/Q value for the appropriate LINE NUMBER and WIND SPEED ( $\bar{u}$ ).

$$X/Q = \frac{\quad}{\quad} \times 10^{-6} \text{ sec/m}^3$$

- To determine NOBLE GAS RELEASE RATE ( $Q_{NG}$ ), refer to FIGURE 1.

- Find the measured DOSE RATE on the left vertical axis. Move horizontally across the graph to find the corresponding NOBLE GAS CONCENTRATION ( $X_{NG}$ ).

$$X_{NG} = \frac{\quad}{\quad} \text{ Ci/m}^3$$

- Determine NOBLE GAS RELEASE RATE ( $Q_{NG}$ ) as follows:

$$Q_{NG} = (X_{NG}) \div (X/Q)$$

$$Q_{NG} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} \times 10^{-6} = \frac{\quad}{\quad} \text{ Ci/sec}$$

- To determine PROJECTED WHOE BODY DOSE at other desired locations, proceed to STEP 5.2 of the main procedure.



METHOD 2 (Cont.)

8. To determine RADIOIODINE RELEASE RATE ( $Q_I$ ), refer to FIGURE 2.

- a. For a quick, rough estimate of RADIOIODINE CONCENTRATION ( $X_I$ ) find the measured WHOLE BODY DOSE RATE on the left vertical axis. Move horizontally across the graph to find the corresponding  $X_I$ .

$$X_I = \frac{\quad}{\quad} \text{Ci/m}^3$$

- b. OR, as analysis of iodine air samples for the desired location are completed, record the results below:

$$X_I = \frac{\quad}{\quad} \text{Ci/m}^3$$

9. Determine RADIOIODINE RELEASE RATE ( $Q_I$ ) as follows:

$$Q_I = (X_I) \div (X/Q)$$

$$Q_I = \frac{\quad}{\quad} \div \frac{\quad}{\quad} \times 10^{-6} = \frac{\quad}{\quad} \text{Ci/sec}$$

10. To determine PROJECTED THYROID DOSE at the location sampled or other desired locations, proceed to STEP 5.2 of the main procedure.



Recommended Protective Actions to Reduce Whole Body and  
Thyroid Dose from Exposure to a Gaseous Plume

Projected Dose (Rem) to the Population	Recommended Actions <sup>(a)</sup>	Comments
Whole body < 1 Thyroid < 5	No planned protective actions. <sup>(b)</sup> State may issue an advisory to seek shelter and await further instructions. Monitor environmental radiation levels.	Previously recommended protective actions may be reconsidered or terminated.
Whole body 1 to 5 Thyroid 5 to 25	Seek shelter as a minimum. Consider evacuation. Evacuate unless constraints make it impractical. Monitor environmental radiation levels. Control access.	If constraints exist, special consideration should be given for evacuation of children and pregnant women.
Whole body 5 and above Thyroid 25 and above	Conduct mandatory evacuation. Monitor environmental radiation levels. and adjust area for mandatory evacuation based on these levels. Control access.	Seeking shelter would be an alternative if evacuation were not immediately possible.
Projected Dose (Rem) to Emergency Team Workers		
Whole body 25 Thyroid 125	Control exposure of emergency team members to these levels except for lifesaving missions. (Appropriate controls for emergency workers include time limitations, respi- rators, and stable iodine.)	Although respirators and stable iodine should be used where effective to control dose to emergency team workers, thyroid dose may not be a limiting factor for lifesaving missions.



OFFSITE DOSE CALCULATIONS  
ATTACHMENT IV to Procedure 6.13

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OFFSITE DOSE CALCULATIONS  
ATTACHMENT IV to Procedure 6.13

Projected Dose (Rem) to Emergency Team Workers	Recommended Actions (a)	Comments
Whole body 75	Control exposure of emergency team members performing life-saving missions to this level. (Control of time of exposure will be most effective.)	Although respirators and stable iodine should be used where effective to control dose to emergency team workers, thyroid dose may not be a limiting factor for lifesaving missions.

- (a) These actions are recommended for planning purposes. Protective action decisions at the time of the incident must take existing conditions into consideration.
- (b) At the time of the incident, officials may implement low-impact protective actions in keeping with the principle of maintaining radiation exposures as low as reasonable achievable.

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FIGURE 1

WHOLE BODY DOSE AS A FUNCTION OF NOBLE GAS AIRBORNE CONCENTRATION OR MEASURED GAMMA EXPOSURE RATE AND PROJECTED EXPOSURE TIME

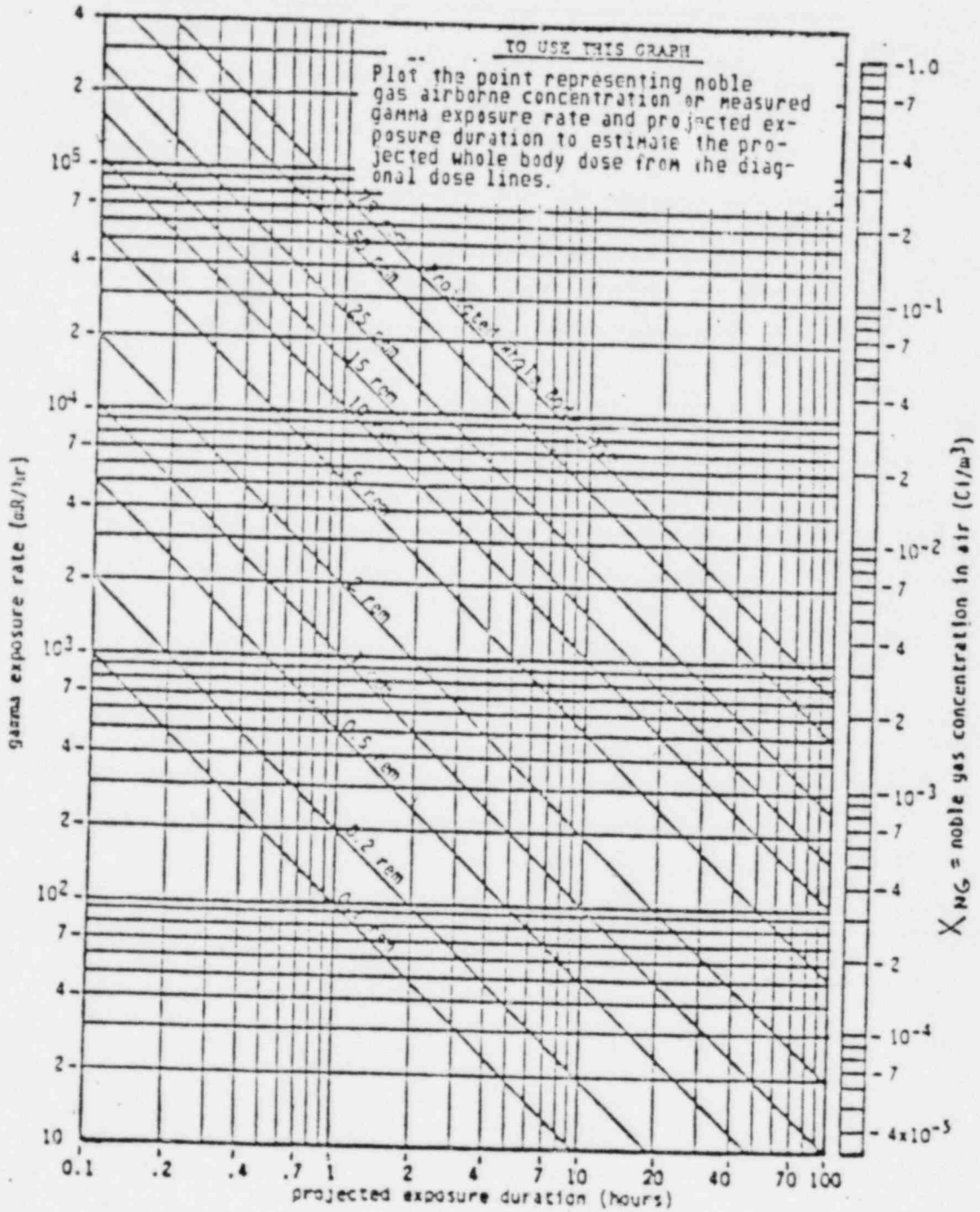
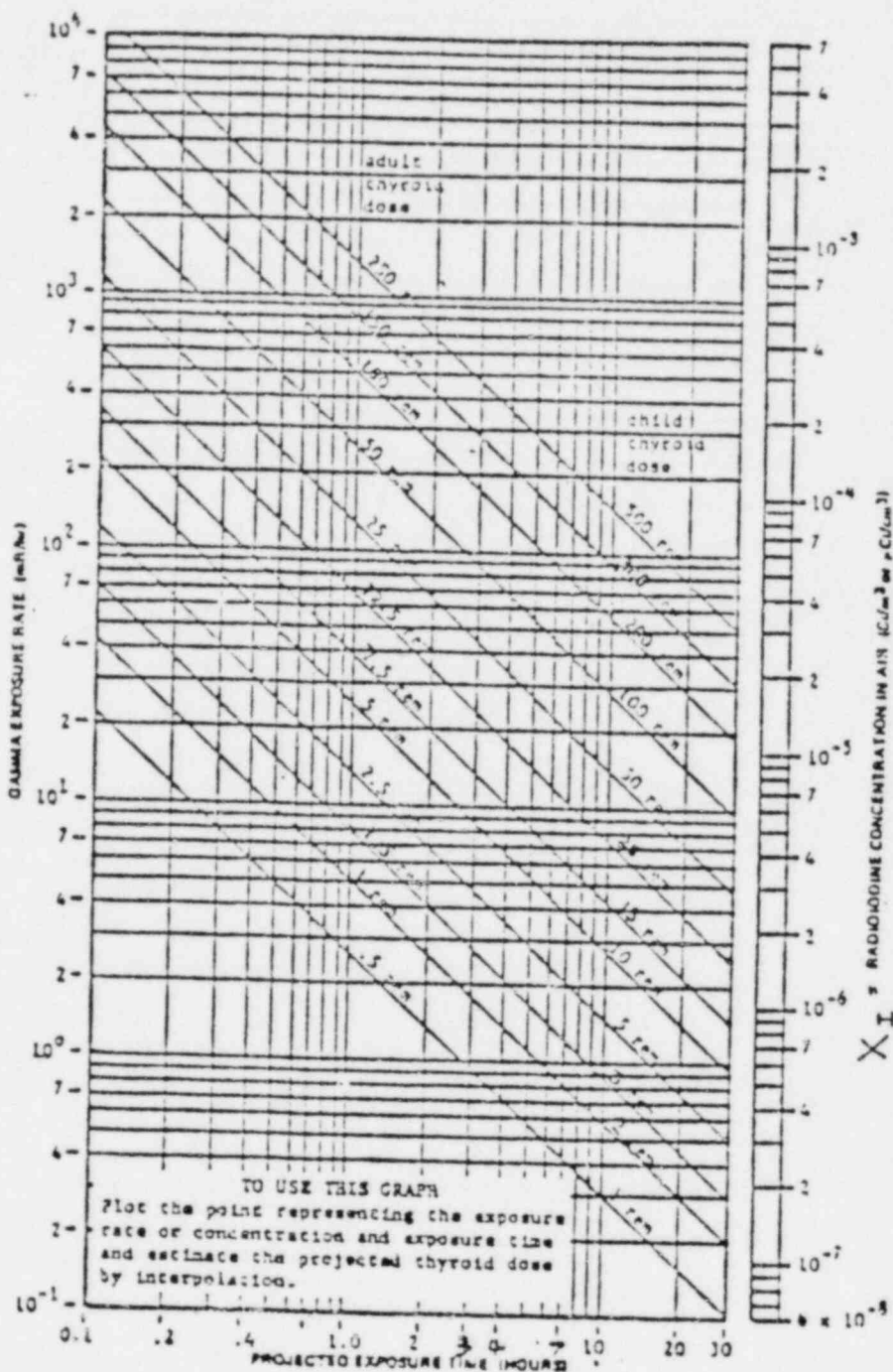


FIGURE 2

THYROID DOSE AS A FUNCTION OF RADIOIODINE AIRBORNE CONCENTRATION OR MEASURED GAMMA EXPOSURE RATE AND PROJECTED EXPOSURE DURATION

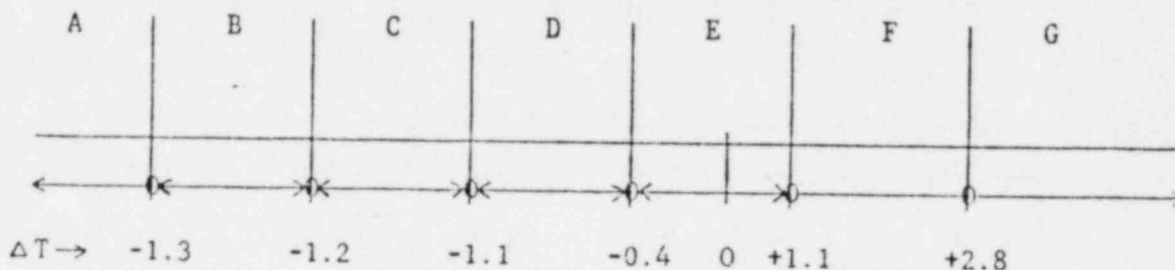


DATA SHEET 1

I. DETERMINATION OF ATMOSPHERIC STABILITY CLASS AND METEOROLOGICAL DATA

1. Record ΔT (include + or - sign): ΔT = \_\_\_\_\_ °F

2. Determine stability class using ΔT:



x denotes includes number on line  
o denotes excludes number on line

STABILITY CLASS \_\_\_\_\_

3. Record average wind speed (ū) and direction: ū = \_\_\_\_\_ mph  
from \_\_\_\_\_ °  
towards \_\_\_\_\_ °  
(downwind)

II. DETERMINATION OF WHOLE BODY AND THYROID DOSE

1. NOBLE GAS RELEASE RATE (Q<sub>NG</sub>): Q<sub>NG</sub> = \_\_\_\_\_ Ci/sec

2. IODINE RELEASE RATE (Q<sub>I</sub>): Q<sub>I</sub> = \_\_\_\_\_ Ci/sec

3. DESIRED DOWNWIND DISTANCE: DISTANCE = \_\_\_\_\_ mi

4. ISOPLETH LINE NUMBER: LINE = \_\_\_\_\_

5. X/Q: X/Q = \_\_\_\_\_ X 10<sup>-6</sup> sec/m<sup>3</sup>

<p>6. NOBLE GAS CONCENTRATION: X<sub>NG</sub> = (X/Q) × (Q<sub>NG</sub>)</p> <p>X<sub>NG</sub> = _____ Ci/m<sup>3</sup></p>	<p>7. IODINE CONCENTRATION: X<sub>I</sub> = (X/Q) × (Q<sub>I</sub>)</p> <p>X<sub>I</sub> = _____ Ci/m<sup>3</sup></p>
---	---

8. PROJECTED EXPOSURE TIME: TIME = \_\_\_\_\_ hrs  
(If unknown, use 2 hours)



DATA SHEET 1 (Cont'd)

9. PROJECTED WHOLE BODY DOSE ( $D_{WB}$ ):  $D_{WB} =$  \_\_\_\_\_ Rem  
[dose rate = \_\_\_\_\_ mr/hr]

10. PROJECTED IODINE DOSE ( $D_I$ ):  $D_I =$  \_\_\_\_\_ Rem

11. COMMENTS:

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

CALCULATIONS PERFORMED BY: \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_



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CORPORATE EMERGENCY PLAN PROCEDURE  
RADIOLOGICAL ASSESSMENT FIELD TEAM MONITORING  
NON-SAFETY RELATED

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## RADIOLOGICAL ASSESSMENT FIELD TEAM MONITORING

### 1.0 PURPOSE

- 1.1 The purpose of this procedure is to establish guidelines for the offsite monitoring team(s) to utilize in:
- 1.1.1 the determination of the environmental immersed whole body dose rate from the plume.
  - 1.1.2 the estimation of the ground level contamination due to the deposition from the plume passage.
  - 1.1.3 the collection of air samples for particulates and radioiodine.
  - 1.1.4 the collection of emergency Thermoluminescent Dosimeters
  - 1.1.5 ensuring field monitoring for radiological assessment is correctly conducted.
- 1.2 This procedure supersedes CEPP-15, Radiological Assessment Field Team Monitoring.

### 2.0 REFERENCES AND CROSS-REFERENCES

#### 2.1 Commitments

- 2.1.1 Nuclear Production Department Policy and Organization Manual
- a. 5.2.3.1
  - b. 7.8
- 2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)
- a. 1.3.7

#### 2.2 Other References

- 2.2.1 NUREG-0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants



- 2.2.2 GCNS Units 1 and 2 Emergency Plan
- 2.2.3 GCNS Plant Operations Manual, Administrative Procedures
  - a. 10-S-01-14, Offsite Radiological Monitoring

2.3 Cross-References

3.0 DEFINITIONS

- 3.1 Air Iodine - The iodine collected on the silver zeolite cartridge by means of air sampling.
- 3.2 Air Particulate - The airborne particulate material collected on filter paper by the air sampler.
- 3.3 REM - Radiation Emergency Manager
- 3.4 SAP - Site Access Point
- 3.5 TLD - Thermoluminescent Dosimeter
- 3.6 EOF - Near Site Emergency Operations Facility

4.0 RESPONSIBILITY

- 4.1 It is the responsibility of the Radiation Emergency Manager (REM) to implement this procedure once the EOF is activated and manned, and turnover of offsite monitoring has been received from the SAP Coordinator in the SAP.
- 4.2 It is the responsibility of the REM to form, equip and dispatch the offsite radiological monitoring teams and to give specific guidance as needed.
- 4.3 It is the responsibility of the Radiological Assessment Field Teams, under the direction of the Radiation Emergency Manager, to perform the offsite emergency monitoring.

5.0 DETAILS

5.1 Instructions/Checklist Initial/Date

5.1.1 The Radiation Emergency Manager (REM)  
shall:

- a. Determine the downwind sectors to be surveyed. The area to be surveyed is a 90° sector containing the plume.

\_\_\_\_\_



- |   | <u>Initial/Date</u> |
|---|---------------------|
| a. Determine the specific locations within the downwind sectors to be evaluated.  |                     |
| b. Designate the offsite field teams, each composed of at least two trained members. The normal complement is at least two teams, but more teams can be formed and dispatched as necessary. |                     |
| d. Continuously monitor the plume pathway in the event it changes and determine new survey points as necessary.   |                     |
| e. Notify the Radiation Protection Manager and SAP Coordinator, if applicable, of current field data.   |                     |
| f. Inform the Offsite Emergency Coordinator of field data results.  |                     |

5.1.2 The offsite field team members will:

- |  |  |
|--|--|
| a. Report to the CEC, receive field kits from the REM, report to the SAP when so directed and be dispatched within the 10-mile EPZ as directed by the REM.                                       |  |
| b. Check the equipment and supplies in the kits against the inventory (posted on kit lid) and ensure gear is operational. Advise REM of non-operational equipment or missing items.              |  |
| c. Wear protective clothing, dosimetry devices, and other protective equipment as recommended by the REM when conducting surveys.  |  |
| d. Conduct particulate and iodine surveys, contamination surveys, and dose rate measurements at the assigned survey areas and exchange TLDs or filters from continuous air monitors as assigned. |  |





NOTE

Initial/Date

Care must be taken to avoid cross contamination of sample materials.

- e. Maintain communication, if possible, with the REM in case travel routes or survey points are changed. \_\_\_\_\_
- f. Report survey data to the REM as quickly as possible. Any filters, cartridges, smears, etc., should be labelled and bagged for return to SAP for further analysis, unless the REM directs otherwise. \_\_\_\_\_

5.1.3 Direct Radiation Measurement

- a. Direct radiation measurements within the plume area provide a means of determining whole body gamma dose rates and for estimating beta dose rates to the skin. Since most beta-gamma survey instruments are sensitive to the higher beta energies only, it is necessary that a thin window detector be used for plume beta dose rate estimations. The Eberline RO-7 will be used to estimate the dose rates. \_\_\_\_\_
- b. Hold the Eberline RO-7 approximately four to five feet above the ground with the detector facing upwards in the suspected direction of the plume and obtain a gamma dose rate (beta shield covering the detector window). Record results in the log book; then, holding the instrument at approximately the same position, remove the beta shield and obtain a beta-gamma dose rate. Record results. \_\_\_\_\_

NOTE

During inclement weather, protect the instrument with plastic or some other type of covering.



c. Report results to the REM as soon as they are available.

Initial/Date  
\_\_\_\_\_

5.1.4 Ground Deposition Surveys

a. Ground contamination by radioactive material from the plume may be determined by direct radiation dose rate surveys as follows:

(1) The Eberline Model RO-7 should be used for obtaining ground deposition rates.

(2) With the beta shield in place and the detector facing the ground (held in a vertical position), obtain the gamma dose rates at positions of one foot and three feet above the surface of the ground. Record results in the log book.

(3) Report results to REM.

b. Contamination surveys should be taken using smear filters in an area of 100 cm<sup>2</sup>.

(1) Perform the smear.

(2) Place smear filter in envelope and retain for analysis at the SAP. Record smear number and location in log book.

5.1.5 Collection of Air Particulate and Radioiodine Samples

a. For grab samples, a Radeco Model H-809C portable air sampler is to be utilized:

(1) Assemble the particulate filter upstream of the silver zeolite cartridge in the air sampler, with the arrow on the cartridge pointing in the direction of air flow.



NOTE

Initial/Date

Always use a particulate filter when collecting radioiodine samples (to prevent dust loading of silver zeolite cartridge).

- (2) Place sampler 3 to 5 feet above ground (to sample breathing zone). \_\_\_\_\_
- (3) Start the vehicle and attach the orange clamp from the air sampler to the (+) terminal of the car battery and the black clamp to the (-) battery terminal. \_\_\_\_\_
- (4) Start the air sampler, simultaneously starting the stopwatch provided. Let the rotometer stabilize and then record the average flow rate (CFM). (Normally 30 ft<sup>3</sup> samples are collected.) \_\_\_\_\_
- (5) Using the calculator provided, divide the volume to be collected (ft<sup>3</sup>) by the rotometer flow rate (ft<sup>3</sup>/min) to determine the number of minutes the sampler should run. \_\_\_\_\_
- (6) Once the desired sampling time has elapsed, turn off the sampler and the stopwatch. \_\_\_\_\_
- (7) Don rubber gloves. Remove the filter from the filter holder with tweezers. Place each filter in a separate plastic bag, mark the location and time on the bag, and fill out the log book with the date, time, location and volume collected. Place both bags containing a filter in a large envelope, along with the log sheet. \_\_\_\_\_



Initial/Date

- (8) Follow procedure 5.1.6 to determine radioactivity concentration, or return air sample media to the SAP for more detailed analyses. \_\_\_\_\_

5.1.6 Determination of Airborne Radioactivity Concentration

a. Particulate

- (1) Don rubber gloves. Remove the particulate filter from the air sampler using rubber gloves and tweezers. \_\_\_\_\_
- (2) Place the filter on a plastic bag. \_\_\_\_\_
- (3) Turn the Ludlum Model 12 count-rate meter on and ensure that the audio is also turned on. \_\_\_\_\_
- (4) Turn the range selector to the X1 position. \_\_\_\_\_
- (5) Hold the pancake probe approximately 1/2 inch from the exposed side of the filter. If the meter deflects more than 3/4 scale, adjust the range selector upward until the reading falls roughly in the middle of the meter scale. \_\_\_\_\_
- (6) Wait until the meter deflection stabilizes and record the average reading in counts/min (CPM). \_\_\_\_\_
- (7) Use the following equation to calculate concentration of particulates in air (uCi/cm<sup>3</sup>) from observed counts/min: \_\_\_\_\_

$$\text{uCi/cm}^3 = \frac{1.6 \times 10^{-11} (\text{net CPM})}{(0.10) (1.0) (\text{Volume})}$$



Initial/Date

Where

Net CPM = Gross CPM - Background CPM  
0.10 = Detector efficiency of Model 12  
1.0 = Collection efficiency of filter  
paper

Vol = Volume of air pulled through air  
filter during sampling period (ft<sup>3</sup>)

(8) Record the details and results  
of this analysis in the field  
team log book. \_\_\_\_\_

(9) Report particulate air concen-  
tration to the REM using the  
two-way radio provided. \_\_\_\_\_

b. Radioiodine

(1) Don rubber gloves. Remove the  
silver zeolite cartridge from  
the air sampler, using rubber  
gloves. \_\_\_\_\_

(2) Place the cartridge on a  
plastic bag. \_\_\_\_\_

(3) Turn the Ludlum Model 12  
count-rate meter on and  
ensure that the audio is  
also turned on. \_\_\_\_\_

(4) Turn the range selector to  
the X1 position. \_\_\_\_\_

(5) Hold the pancake probe approx-  
imately  $\frac{1}{2}$  inch from the exposed  
side of the cartridge. If the  
meter deflects more than  $\frac{3}{4}$   
scale, adjust the range selector  
upward until the reading falls  
roughly in the middle of the  
meter scale. \_\_\_\_\_

(6) Wait until the meter deflection  
stabilizes and record the  
average reading in counts/min  
(CPM). \_\_\_\_\_



RADIOLOGICAL ASSESSMENT FIELD TEAM MONITORING  
PROCEDURE NO. 6.14

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- (7) Use the following equation to estimate concentration of radioiodine in air ( $\mu\text{Ci}/\text{cm}^3$ ) from observed counts/min: \_\_\_\_\_ Initial/Date

$$\mu\text{Ci}/\text{cm}^3 = \frac{1.6 \times 10^{-11} (\text{Net CPM})}{(0.10) (0.82) (\text{Volume})}$$

Where:

Net CPM = Cross CPM - Background CPM

0.10 = Detector efficiency of Ludlum Model 12

0.82 = Collection efficiency of silver zeolite cartridge for radioiodines

Vol = Volume of air pulled through cartridge during sampling period ( $\text{ft}^3$ )

- (8) Record the details and results of this analysis in the field team log book. \_\_\_\_\_
- (9) Report radioiodine air concentration to the REM using the two-way radio provided. \_\_\_\_\_

c. Continuous Air Sampling

- (1) For continuous air sampling, the environmental air sample units are to be utilized. Record data in log book. \_\_\_\_\_
- (a) Record the flow rate and turn unit OFF. \_\_\_\_\_
- (b) Record the elapsed time. \_\_\_\_\_
- (c) Remove the particulate filter and charcoal media cartridge. Bag filters separately and label. \_\_\_\_\_
- (d) Place new filter and cartridge in the holder and turn unit ON. Bag separately the used filter and cartridge. \_\_\_\_\_



(e) Adjust and record flow rate. Initial/Date  
\_\_\_\_\_

(f) Return to SAP with filters for analysis.  
\_\_\_\_\_

5.1.7 Collection of Emergency TLDs

- a. In the event of a Site Emergency or General Emergency, environmental TLDs should be collected to assess the accumulated exposure to the population in that area. Initially, only those environmental TLDs in the 3 or 4 adjoining 22.5° sectors in the downwind direction are to be collected. \_\_\_\_\_
- b. The environmental TLDs should be replaced by zeroed personnel TLDs, available from the lead shield in the SAP. \_\_\_\_\_
- c. The environmental TLDs will be returned to the SAP to be packaged and shipped to Eberline for analysis. The personnel TLDs can be read at the SAP after collection. When collecting, place each TLD in a labelled envelope. \_\_\_\_\_

6.0 APPENDICES

None



Proc. No. 6.15

Rev. No. 0

Date 3/2/82

CORPORATE EMERGENCY PLAN PROCEDURE  
EMERGENCY OPERATIONS FACILITY ACCESS CONTROL  
NON-SAFETY RELATED

Prepared: [Signature]

Reviewed: L.R. McKay [Signature] W.E. Edgefor T.E. Reaves, Jr.  
Reviewer Section Manager Manager of Quality Assurance

Reviewed/Approved: [Signature]  
Manager of Nuclear Services

Reviewed/Approved: [Signature]  
Assistant Vice President - Nuclear Production

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EMERGENCY OPERATIONS FACILITY ACCESS CONTROL

1.0 PURPOSE

1.1 The purpose of this procedure is to describe:

1.1.1 the guidelines for admitting personnel into the interim Emergency Operations Facility (EOF). This procedure will be revised when the EOF is moved to its permanent location.

1.1.2 access controls at the EOF.

1.2 This procedure supersedes CEPP-16, Emergency Operations Facility Access Control.

2.0 REFERENCES AND CROSS-REFERENCES

2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual

- a. 5.2.3.1
- b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)

- a. 1.3.7

2.2 Other References

None

2.3 Cross-References

3.0 DEFINITIONS

3.1 EOF - Near-Site Emergency Operations Facility

4.0 RESPONSIBILITY

4.1 It is the responsibility of all persons assigned to the EOF to be knowledgeable of and adhere to personnel access requirements.



- 4.2 It is the responsibility of the Offsite Emergency Coordinator and the Security Manager to direct the Emergency Planning Coordinator to make procedural revisions, as necessary, to ensure that the effectiveness of the EOF is not degraded due to the personnel access restrictions.
- 4.3 It is the responsibility of the Offsite Emergency Coordinator, Assistant to the Offsite Emergency Coordinator or Security Manager to permit access of personnel not normally assigned to the EOF.

5.0 DETAILS

5.1 Access Controls

- 5.1.1 Positive access controls will be established by a Security Officer(s) outside the entrance of the EOF.
- 5.1.2 Only authorized personnel will be allowed to enter the EOF. Authorized personnel will consist of the following:
- a. Members of the Offsite Emergency Organization.
  - b. Non-members of the Offsite Emergency Organization whose access is approved by the Offsite Emergency Coordinator, Assistant to the Offsite Emergency Coordinator, Security Manager, or special designee in accordance with step 5.1.3 below.
  - c. Exercise observers (emergency exercises only); exercise observers will be wearing pre-issued red OBSERVER identification badges and are considered to be "invisible."
- 5.1.3 It is recognized that the persons filling the positions listed in 4.3 may not be accessible at all times to permit access of persons that are not members of the Offsite Emergency Organization. Those persons filling the positions listed in 4.3 may delegate this access authorization authority to other knowledgeable individuals (special designees).
- 5.1.4 The Security Officer will verify both members and non-members of the Offsite Emergency Organization by comparing some type of personal identification (i.e., MP&L identification card, MP&L badge, driver's license, etc.) against an access list similar to Attachment I.



5.1.5 Personnel that are not listed on Attachment I or that cannot provide some identification must have approval as specified in 5.1.2.b. prior to entering the EOF.

5.1.6 Members of the Offsite Emergency Organization that are expecting visitors not listed on Attachment I should notify the Security Officer prior to their arrival so that access authorization can be obtained.

5.2 EOF Identification Badge

5.2.1 When the Security Officer has verified that a person is authorized to enter the EOF, the person will be issued an EOF Identification Badge. The issuance of this badge will be recorded on a form similar to Attachment II.

5.2.2 Persons issued an EOF Identification Badge will display the badge on the front of their body above the waist. The badge will remain with the assigned person until they leave the Training Center; the EOF Identification Badge should not be carried outside the Training Center.

5.2.3 Persons that have been issued an EOF Identification Badge and leave the EOF, but not the Training Center, will be permitted to reenter the EOF without displaying additional identification.

6.0 APPENDICES

6.1 Attachment I - EOF Security Access List

6.2 Attachment II - EOF Identification Badge Log





EOF SECURITY ACCESS LIST (Continued)

<u>State/Local Representatives*</u>	<u>Badge Number or Social Security Number</u>
-------------------------------------	---

Mississippi State Board of Health  
C. E. Hilton

\_\_\_\_\_

Claiborne County Civil Defense

\_\_\_\_\_

Louisiana Nuclear Energy Division  
L. H. Bohlinger

\_\_\_\_\_

Tensas Parish Emergency Preparedness

\_\_\_\_\_

Other\* (Name and Company)

Identification Approved By

\_\_\_\_\_  
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\* Any individual not specifically named MUST RECEIVE AUTHORIZATION before adding his name to this list. Indicate initials of authorizing MP&L employee by "Identification Checked" column.





Proc. No. 6.16

Rev. No. 1

Date 7/26/82

CORPORATE EMERGENCY PLAN PROCEDURE

MAINTENANCE OF EMERGENCY OFFSITE FIELD MONITORING KITS

NON-SAFETY RELATED

Prepared: *J. Mayne*  
Reviewed: *L.R. McKay* Reviewer      *J. B. Lehard* Section Manager      *W.E. Lee for T.E. Reaves, Jr.* Manager of Quality Assurance  
Reviewed/Approved: *L. D. ...* Manager of Nuclear Services  
Reviewed/Approved: *James M. ...* Assistant Vice President - Nuclear Production

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MAINTENANCE OF EMERGENCY OFFSITE FIELD MONITORING KITS

1.0 PURPOSE

1.1 The purpose of this procedure is to prescribe requirements for periodic maintenance activities relating to emergency offsite field monitoring kits.

2.0 REFERENCES AND CROSS-REFERENCES

2.1 Commitments

2.1.1 Nuclear Production Department Policy and Organization Manual  
a. 5.2.3.1  
b. 7.8

2.1.2 MP&L Operational Quality Assurance Manual (MPL-TOP-1A)  
a. 1.3.7

2.2 Other References

2.2.1 NUREG 0654, Rev. 1, 11/80, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.2 NUREG - 0696, 2/81, Functional Criteria for Emergency Response Facilities

2.2.3 GGNS Units 1 and 2 Emergency Plan

2.3 Cross-References

3.0 DEFINITIONS

None

4.0 RESPONSIBILITY

4.1 The Corporate Health Physicist is responsible for implementation and maintenance of this procedure and for specific functions described in Section 5.0 of this procedure.





4.2 The Instrument and Control Superintendent and The Health Physics Supervisor are responsible for calibration and preventive maintenance of specified emergency kit equipment in accordance with appropriate plant staff procedures and for the specific functions described in Section 5.0 of this procedure.

## 5.0 DETAILS

### 5.1 Equipment Inventory

5.1.1 The Corporate Health Physicist, or his designee, must:

- a. on a quarterly basis inventory all equipment contained in the Emergency Offsite Field Monitoring Kits. Equipment required in each kit is listed on Attachment I to this procedure. Kits are located in the Nuclear Services Technical Library.
  - (1) sight and count each item of required equipment and check off the inventory list, noting items of equipment discovered to be missing.
  - (2) test operate all operating equipment.
  - (3) prepare a report of completion of the inventory in the form of Attachment II.
  - (4) ensure expeditious replacement or repair of all equipment discovered to be missing or inoperable.

### 5.2 Equipment Calibration and Preventive Maintenance

5.2.1 The Corporate Health Physicist, or his designee,

- a. must ensure that routine calibration and preventive maintenance is performed on the following equipment on a semiannual basis in accordance with appropriate plant staff procedures:
  - (1) LUDLUM Model 12 with pancake probe (4 units)
  - (2) EBERLINE Model RO-7 Ion Chamber w/3 probes (4 units)
  - (3) RADECO Model 809C Air Sampler (4 units)



- b. must ensure that at least two (2) units of each type of instrument are available at all times for use by the Emergency Field Team Members. This must be accomplished by means of a staggered calibration schedule.
- c. must, when notified by the appropriate Plant Staff supervisor, deliver the required equipment to the GGNS Site and pick up equipment upon completion of calibration and maintenance.
- d. must replace calibrated equipment in the offsite field monitoring kits.
- e. may request temporary assignment of other calibrated instruments when repair or routine maintenance of assigned equipment extends beyond two weeks.

5.2.2 The Instrument and Control Superintendent must:

- a. notify the Corporate Health Physicist that routine equipment calibration and preventive maintenance is required on the RADECO Model 809C Air Samplers.
- b. upon delivery of equipment, perform routine equipment calibration and preventive maintenance and notify the Corporate Health Physicist that equipment is ready for pickup.
- c. in the event of an incident requiring the use of the air samplers, provide additional calibrated equipment in accordance with the directions of the Corporate Health Physicist.

5.2.3 The Health Physics Supervisor must:

- a. notify the Corporate Health Physicist that routine equipment calibration and preventive maintenance is required on the:
  - (1) EBERLINE Model RO-7 Ion Chamber w/3 probes
  - (2) LUDLUM Model 12 w/pancake probe
- b. upon delivery of equipment perform routine equipment calibration and preventive maintenance and notify the Corporate Health Physicist that equipment is ready for pickup.



c. in the event of an incident requiring the use of this equipment, provide additional calibrated equipment in accordance with the directions of the Corporate Health Physicist.

1

6.0 APPENDICES

6.1 Attachment I - Emergency Offsite Field Monitoring Kits -  
Equipment Inventory

6.2 Attachment II - Emergency Offsite Field Monitoring Kits -  
Inventory Report



EMERGENCY OFFSITE FIELD MONITORING KITS  
EQUIPMENT INVENTORY

KIT COLOR \_\_\_\_\_

OPERATING EQUIPMENT

<u>REQUIRED QUANTITY</u>	<u>DESCRIPTION</u>	<u>INVENTORY QUANTITY</u>	<u>TEST OPERATE</u>
1	RADECO Model 809C Air Sampler	_____	Sat.____ Unsat.____
1	EBERLINE Model RO-7 Ion Chamber w/3 probes	_____	Sat.____ Unsat.____
1	LUDLUM Model 12 w/pancake probe	_____	Sat.____ Unsat.____
1	2-Way Radio w/DC adapter	_____	Sat.____ Unsat.____
1	Flashlight	_____	Sat.____ Unsat.____
1	Stopwatch	_____	Sat.____ Unsat.____
1	Pocket Calculator	_____	Sat.____ Unsat.____
1	Dosimeter Charger	_____	Sat.____ Unsat.____
1	Compass	_____	Sat.____ Unsat.____



NON-OPERATING EQUIPMENT

<u>REQUIRED QUANTITY</u>	<u>DESCRIPTION</u>	<u>INVENTORY QUANTITY</u>
2	0-200 mR pocket dosimeters	_____
2	0-5 R pocket dosimeters	_____
3	Silver Zeolite Cartridges	_____
20	Air Particulate Filters	_____
2	Vests, Hunter Orange	_____
1	Tweezers	_____
5 pr	Plastic Gloves	_____
1 box	Small Ziplock Bags	_____
1 box	Large Ziplock Bags	_____
1	10-Mile EPZ Map	_____
1	Reference Points List	_____
1	Air Sampler/TLD List	_____
9	Large Air Sample Envelopes	_____
1	Dose Rate Conversion Table	_____
1	Logbook	_____
1	Steno Pad	_____
2	Ballpoint Pens	_____
2	Pencils	_____
1	Marking Pen	_____
2	Spare Flashlight Batteries	_____
1 btl	KI Tablets	_____
1	State Map	_____
1 roll	Dimes	_____
5 pr	Booties	_____
2 sets	Raingear	_____
1 roll	Masking Tape	_____
1 pr	Cotton Gloves	_____
1	Screwdriver	_____
1	Radio Antenna	_____

1

Inventory Completed:

\_\_\_\_\_/\_\_\_\_\_  
Signature / Date



EMERGENCY OFFSITE FIELD MONITORING KITS  
INVENTORY REPORT

MEMORANDUM

TO: Corporate Health Physicist

FROM: \_\_\_\_\_

SUBJECT: Quarterly Inventory of Emergency Offsite Field Monitoring Kits

The subject inventory was completed by me on       (Date)      . Attached are copies of the completed inventory checklists.

All required equipment was found to be present and operable with the following exceptions:

(List here specific equipment found to be missing or inoperable, the quantities of each required to restore the inventory and the kit color to which the deficiency applies)

\_\_\_\_\_  
Signature / Date



Volume 10  
Section 01

10-S-01-1  
Revision 3  
Date: 8/2/82

EMERGENCY PLAN PROCEDURE  
ACTIVATION OF THE EMERGENCY PLAN  
SAFETY RELATED

Prepared: [Signature]  
Reviewed: [Signature] Asst. Plt. Manager      [Signature] Nuclear Support Manager      [Signature] Plt. Quality Supt.  
PSRC: [Signature] 8/2/82  
Approved: [Signature] 8/2/82  
Plant Manager

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List of TCN's Incorporated:

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1	None
2	None
3	None

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## 1.0 PURPOSE

- 1.1 To provide a means of classifying an event or condition at GGNS into one of four emergency classifications as described in the GGNS Emergency Plan. Once an event or condition is classified, the appropriate Emergency Plan Procedure should be initiated to provide for the necessary emergency organization notifications, mobilizations, and actions to properly react to the situation. The procedure also provides for upgrading or downgrading the level of emergency classification in the event of a change in the severity of the condition.

## 2.0 RESPONSIBILITIES

- 2.1 At the onset of a station emergency, the Shift Superintendent or Shift Supervisor shall initiate the immediate actions required to safeguard personnel and equipment, assume the position of Emergency Director and classify the emergency.

## 3.0 REFERENCES

- 3.1 GGNS Emergency Plan, Sections 3.0 and 4.0

## 4.0 ATTACHMENTS

- 4.1 Attachment I - Emergency Classifications (Table 1)

## 5.0 DEFINITIONS

- 5.1 Emergency Action Levels (EAL's) - Levels composed of a combination of plant parameters (such as instrument readings and system status) that can be used to give relatively quick indication of the severity of the accident situation. They are used as guidelines in the classification of emergency situations.



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## 5.2 Emergency Classification (In increasing order of severity)

5.2.1 Unusual Event

5.2.2 Alert

5.2.3 Site Emergency

5.2.4 General Emergency

5.3 Site Boundary - For this procedure 696 meters from center of the containment.

## 6.0 DETAILS

6.1 At the onset of abnormal plant conditions, the Control Room personnel should notify the Shift Superintendent.

6.2 Select affected categories related to plant events or conditions at this time. Mark all applicable categories:

<u>Category</u>				<u>Refer to Page</u> <u>in Table 1</u>
<u>Init.</u> <u>Classif.</u>	<u>Subsequent</u> <u>Re-Classif.</u>			
1. _____	_____	_____	Safety System Functions	1
2. _____	_____	_____	Abnormal Primary Leak Rate	4
3. _____	_____	_____	Abnormal Coolant Temperature/ Pressure	5
4. _____	_____	_____	Core Fuel Damage	6
5. _____	_____	_____	Steam Leaks	8
6. _____	_____	_____	Abnormal Effluent, Gaseous	11
7. _____	_____	_____	Abnormal Effluent, Liquid	13
8. _____	_____	_____	Major Electrical Failures	14
9. _____	_____	_____	Control Room Evacuation	16

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10.	_____	_____	_____	Fire	17
11.	_____	_____	_____	Plant Shutdown Function	17
12.	_____	_____	_____	Abnormal In-plant Radiation/ Airborne Levels	18
13.	_____	_____	_____	Fuel Handling Accident	19
14.	_____	_____	_____	Contaminated Injured/Over- exposed Personnel	20
15.	_____	_____	_____	Security Threat	20
16.	_____	_____	_____	Hazards to Plant Operations	21
17.	_____	_____	_____	Natural Events	23
18.	_____	_____	_____	Other	23

- 6.3 Review the initiating conditions and the emergency action levels for the event (Table 1).
- 6.4 Record date/time and initial classification of event and subsequent event re-classifications.

<u>Initial Date/Time</u>	<u>Subsequent Date/Time</u>	<u>Subsequent Date/Time</u>
_____	_____	_____
<u>Classification</u>	<u>Classification</u>	<u>Classification</u>
_____	_____	_____

6.5 Depending on the classification of the emergency, implement the Emergency Plan by use of one of the following Emergency Plan Procedures:

6.5.1 Emergency Plan Procedure 10-S-01-2, Unusual Event (EPP-2)

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- 6.5.2 Emergency Plan Procedure 10-S-01-3, Alert (EPP-3)
- 6.5.3 Emergency Plan Procedure 10-S-01-4, Site Emergency (EPP-4)
- 6.5.4 Emergency Plan Procedure 10-S-01-5, General Emergency (EPP-5)
- 6.6 All actions and notifications are to be properly logged.
- 6.7 Reclassify the event as conditions warrant.

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
1. Safety System Function	1. ECCS initiated and injected into reactor vessel	1. Low Reactor Water level a. -41.6" Activate: HPCS RCIC  OR  2. High drywell Pressure a. 1.89 psig  Activate: HPCS LPCS LPCI (RHR, I & II)  OR  3. Manual initiation and injection into vessel	Unusual Event
	2. Failure of a safety or relief valve to close	1. Relief valve(s) open as indicated by SRV position indicating red light on P601-19C from tail pipe pressure switch(s)  AND  2. Continued increase in suppression pool temperature in proximity to open valve(s)  OR  3. Relief valve tail pipe temp. element TE-N004 A/W reads abnormally high for plant conditions	Unusual Event

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
<p>1. Safety System Functions (CONT'D)</p>	<p>3. Loss of primary containment integrity requiring Technical Specification shutdown (T.S. 3/4 6.1)</p>	<p>Exceeding the limits specified by Limiting Conditions for Operation action statements for:</p> <ol style="list-style-type: none"> <li>1. Primary Containment Integrity 3.6.1.1</li> <li>2. Containment Leakage Rates 3.6.1.2</li> <li>3. Drywell Integrity 3.6.2.1</li> <li>4. Containment Air Locks 3.6.1.3</li> <li>5. Drywell Air Locks 3.6.2.3</li> <li>6. Suppression Pool Operability 3.6.3.1</li> <li>7. Containment and Drywell Isolation Valves 3.6.4</li> <li>8. Containment structural Integrity 3.6.1.6</li> <li>9. Drywell structural integrity 3.6.1.6</li> </ol>	<p>Unusual Event</p>
	<p>4. Loss of secondary containment integrity requiring Technical Specifications shutdown (T.S. 3/4 6.6)</p>	<p>Exceeding the limits specified by Limiting Conditions for Operation action statements for:</p> <ol style="list-style-type: none"> <li>1. Secondary Containment Integrity 3.6.6.1</li> <li>2. Secondary Containment Automatic Isolation Dampers/Valves 3.6.6.2</li> <li>3. Standby Gas Treatment Subsystem 3.6.6.3</li> </ol>	<p>Unusual Event</p>

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
1. Safety System Functions (CONT'D)	5. Loss of engineered safety feature requiring Tech. Spec. shutdown (Tech. Spec. 3.5.1)	<p>Exceeding <u>one</u> of the following Limiting Conditions for Operation (LCO) action statements:</p> <p style="text-align: center;">OR</p> <p>Entry level conditions met for two of the following Limiting Conditions for Operations:</p> <ol style="list-style-type: none"> <li>1. HPCS (High Pressure Core Spray)</li> <li>2. ADS (Automatic Depressurization System)</li> <li>3. LPCS (Low Pressure Core Spray)</li> <li>4. LPCI (Low Pressure Coolant Injection System)</li> <li>5. Safety Valves &lt; (7) Seven operational</li> <li>6. Relief Valves &lt; (6) Six operational</li> <li>7. LoLo Set function &lt; (6) Six operational</li> <li>8. A.D.S. &lt; (7) Seven operational</li> <li>9. Containment Spray &lt; 2 Systems operational</li> <li>10. Emergency Suppression Pool Makeup &lt; 2 Systems operational</li> </ol>	Unusual Event

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
2. Abnormal Primary Coolant Leak Rate	1. Exceeding primary coolant system leak rate Tech. Spec. (Tech. Spec. 3.4.3.2)	<p>Any of the following:</p> <ol style="list-style-type: none"> <li>Greater than 0 pressure boundary leakage</li> <li>5 gpm unidentified leakage</li> <li>30 gpm total leakage averaged over 24 hours</li> <li>1 gpm leakage at a reactor coolant system pressure of <math>1050 \pm 10</math> psig from any reactor coolant system pressure isolation valve - Table 3.4.3.2-1</li> <li>2 gpm increase in unidentified leakage within any 4 hour period</li> </ol>	Unusual Event
	2. Coolant leak rate greater than 50 gpm with reactor at operating temperature and pressure.	1. Unidentified plus identified leakage calculated to be greater than 50 gpm	Alert
	3. Loss Of Coolant Accident (LOCA)	<ol style="list-style-type: none"> <li>Low Reactor Water Level - 150.3"</li> </ol> <p>AND</p> <ol style="list-style-type: none"> <li>Hi Dry Well Pressure 1.89 psig</li> </ol>	Site Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
3. Abnormal coolant temperature/pressure	1. Abnormal reactor coolant pressure	1. Reactor vessel steam dome pressure $\geq$ 1045 psig  2. Rx Thermal Power > 25% Rated (958 MWT) and < 785 psig Dome Pressure or < 10% Core Flow	Unusual Event
	2. Abnormal Reactor Coolant Temperature	1. Heat up/Cooldown > 100°F/hr. as averaged over a 1 hour period 2. Rx Vessel Head/Flange Ndt < 70°F with head tensioned	Unusual Event



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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
4. Core Fuel Damage	1. Fuel damage indication	<p><u>Any of the following:</u></p> <ol style="list-style-type: none"> <li>Increase of 100,000 uCi/sec in 30 min. in off-gas release rate.</li> <li>&gt; 500,000 uci/sec offgas release rate.</li> <li>Laboratory analysis of coolant sample indicates greater than or equal to 0.2 uCi/ml dose equivalent I-131</li> </ol>	Unusual Event
	2. Severe loss of fuel cladding	<p><u>Any of the following</u></p> <ol style="list-style-type: none"> <li>Off-gas pretreatment monitor reading greater than 5 ci/sec</li> <li>Coolant sample analysis indicates 300 uCi/ml equivalent I-131 or greater</li> <li>Main steam line radiation monitor exceeds trip set point</li> </ol>	Alert
	3. Degraded core with possible loss of coolant geometry	<p><u>Both of the following:</u></p> <ol style="list-style-type: none"> <li>Reactor water level at top of active fuel core height as indicated on fuel zone level indicator (-167" Fuel Zone)</li> <li>High coolant activity indicated by analysis of sample greater than 300 uCi/ml equivalent I-131</li> </ol>	Site Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
4. Core Fuel Damage (CONT'D)	4. Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier.	<p><u>Both</u> of the following:</p> <ol style="list-style-type: none"> <li>1. Radiation monitoring teams indicates 50 mR/hr whole body or 250 mR/hr thyroid for 30 minutes. At site boundary.</li> <li>2. Containment pressure exceeds 11.5 psig for more than 2 minutes.</li> </ol>	General Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
5. Steam System Leak	1. Main Steam Line break outside of Containment with automatic isolation (T.S. 3.3.2-2)	1. M.S.L. Hi Flow >169 psid <u>Main Stm Tunnel:</u> 2. Hi Temp. >180°F 3. Main Steam Tunnel $\Delta T$ > 80°F 4. Reactor Depressurization < 849# in run mode	Unusual Event
	2. RCIC Steam Line Break outside of Containment with Automatic Isolation (T.S. 3.3.2-2)	1. Steam Line Hi Flow > 318" H <sub>2</sub> O <u>RCIC Stm. TNL.</u> 2. MSL Tunnel >179°F 3. MSL Tunnel Area Cooler $\Delta T$ 75°F <u>RCIC Equip. Rm.</u> 4. Room Hi Temp. >189°F 5. Room Cooler $\Delta T$ >125°F <u>RHR Equip. Rm.</u> 6. Room Hi Temp >169°F 7. Room Cooler $\Delta T$ >105°F	Unusual Event

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
5. Steam System Leak (CONT'D)	2. RCIC Steam Line Break outside of Containment with isolation (CONT'D)	8. Stm. Line Hi Flow RCIC & RHR > 145" H <sub>2</sub> )	Unusual Event
	3. MSIV Hi Leakage	1. Isolation Initiated or Required and Abnormal Pressure Sensed down stream of Isolation Valves	Alert
	4. RCIC Steam Supply Hi Leakage	1. Isolation Initiated or Required and Abnormal Pressure Sensed down stream of Isolation Valves	Alert
	5. Main Steam Line Break Outside of Containment which cannot be isolated with a subsequent release	1. M.S.L. Hi Flow >169 psid <u>Main Steam Tunnel:</u> 2. Hi Temp. >179°F 3. Cooler ΔT >80°F 4. Reactor Depressurization < 849# in run mode	Site Emergenc
	6. RCIC Steam Line Break Outside of Containment which cannot be isolated with a subsequent release	1. Steam Line Hi Flow 300" H <sub>2</sub> O 2 <u>RCIC Steam</u> 2. MSL Tunnel Area >179°F 3. MSL Tunnel Area Cooler ΔT >75°F	

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
5. Steam System Leak (CONT'D)	6. RCIC Steam Line Break outside of Containment which cannot be isolated with a subsequent release (CONT'D)	<p>RCIC Equipment Room:</p> <p>4. Room Hi Temp. &gt;189°F</p> <p>5. Room Cooler T &gt;125°F And Rupture of Blowout panels</p> <p>RHR Equipment Room:</p> <p>6. Room Hi Temp. &gt;169°F</p> <p>7. Room Cooler T &gt;105°F</p> <p>8. Steam Line Hi Flow &gt; 145" H<sub>2</sub>O And Rupture of Blowout panels</p>	Site Emergenc

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
6. Abnormal Effluent <u>GASEOUS</u>	1. Radiological Effluent Release Rate (Tech. Spec. 3.11.2)	1. Hi Hi Radiation Alarm on one or more monitors: a. Radwaste Bldg. Vent Exhaust b. Fuel Handling Vent Exhaust c. Containment Vent Exhaust d. Turbine Bldg. Vent Exhaust  AND 2. Summation of monitors exceeds Tech. Spec. 3.11.2  OR 3. Results of grab samples performed in accordance with Surveillance Procedure 06-CH-1D17-V-0017, exceed instantaneous release rate And 4. Summation of release rates exceed Tech Spec 3.11.2	Unusual Event
	2. Radiological Effluent Greater 10 x Tech. Spec. Limit (Tech. Spec. 3.11.2)	1. Hi Hi Radiation Alarm on one or more monitors: a. Radwaste Bldg. Vent Exhaust b. Fuel Handling Vent Exhaust c. Containment Vent Exhaust d. Turbine Bldg. Vent Exhaust  2. Summation of monitors exceeds Tech. Spec. limit	Alert

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
6. Abnormal Effluent (CONT'D)  <u>GASEOUS</u>	<u>For Adverse Meterology</u> 3. a. Effluent monitors detect levels corresponding to greater than 50 mR/hr whole body (for 30 minutes) b. Greater than 500 mR/hr whole body (for 2 minutes), or c. 5 times these levels for thyroid, at the site boundary.	<u>Any of the following:</u> 1. Containment post-accident radiation monitor reads greater than $5 \times 10^5$ rem/hr 2. Post accident effluent radiation monitor confirms noble gas and/or iodine release rates corresponding to: 0.1 Ci/sec noble gas (30 minutes) or 500 uCi/sec iodine (30 minutes) or 1.0 Ci/sec noble gas (2 minutes) or 5000 uCi/sec iodine (2 minutes) 3. Post accident sampling system confirms containment atmosphere noble gas and iodine levels to be greater than: 6.0 Ci/cc noble gas $3 \times 10^{-1}$ uCi/cc iodine 4. Radiation monitoring teams report radiation and iodine concentration readings at the site boundary corresponding to: 50 mR/hr (30 minutes) or 500 mR/hr (2 minutes) or $5 \times 10^{-7}$ uCi/cc Iodine (30 minutes) or $5 \times 10^{-6}$ uCi/cc Iodine (2 minutes)	Site Emergency
	4. Effluent monitors detect levels corresponding to 1 rem/hr whole body or 5 rem/hr thyroid at the site boundary under ACTUAL meteorological conditions.	1. Post accident effluent radiation monitor confirms noble gas and iodine release rates corresponding to 1 rem/hr whole body or 5 rem/hr thyroid at the site boundary for actual meteorological conditions.	General Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
6. Abnormal Effluent (CONT'D) <u>GASEOUS</u>	4. Effluent monitors detect levels corresponding to 1 rem/hr whole body or 5 rem/hr thyroid at the site boundary under actual meteorological conditions (CONT'D)	2. Radiation monitoring teams report radiation and iodine concentration readings of 1 rem/hr whole body or $1 \times 10^{-5}$ uCi/cc iodine	General Emergency
7. Abnormal Effluent <u>LIQUID</u>	1. Radiological Effluent Release Rate $>$ Set Point but $<$ 10 times Set Point  Note: Setpoint is determined by Pre-Release calculations	For <u>liquid</u> effluent releases, <u>Both</u> of the following: 1. Liquid radwaste effluent monitor to be at release set point. (hi-hi alarm) 2. Isolation valve fails to close.	Unusual Event
	2. Radiological Effluent greater than 10 x Set Point.	For <u>liquid</u> effluent releases, <u>All</u> of the following: 1. Liquid radwaste effluent monitor hi-hi alarm 2. To be greater than 10 times the release set point 3. Isolation valve fails to close.	Alert



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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
8. Major Electrical Failures	1. Total loss of offsite Power <u>or</u> Loss of On-site A.C. Power Capability	1. 500KV Source Lost AND 2. 115KV Source Lost AND/OR 3. Under voltage on Buses 11R & 12R OR 4. Loss of all Diesel Generators Supplying:  Buses: Division I 15AA DG #11 Division II 16AB DG #12 Division III 17AC DG #13	Unusual Event
	2. Total Loss of offsite Power <u>and</u> Loss of all onsite power less than 15 minutes.	1. 500KV Source Lost AND 2. 115KV Source Lost AND/OR 3. Under voltage on Buses 11R & 12R AND 4. Loss of all Diesel Generators Supplying  Buses: Division I 15AA DG #11 Division II 16AB DG #12 Division III 17AC DG #13	Alert
	3. Total Loss of offsite Power <u>and</u> Loss of all onsite power greater than 15 minutes	1. 500KV Source Lost AND 2. 115KV Source Lost AND/OR 3. Under voltage on Buses 11R & 12R -AND- 4. Loss of all Diesel Generators Supplying:  Buses: Division I 15AA DG #11 Division II 16AB DG #12 Division III 17AC DG #13	Site Emergency
	4. Total Loss of offsite Power and Loss of all onsite power for extended period of time.	1. Potential of core melt over long term.	General Emergency

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
8. Major Electrical Failures (CONT'D)	5. Loss of onsite E.S.F. D.C. power for less than 15 minutes.	1. Loss of 250 V. and 125 V. D.C. Main Distribution Buses 11DA; and/or 11DB; and/or 11DC	Alert
	6. Loss of onsite E.S.F. D.C. Power for longer than 15 minutes.	1. Loss of 250 V. and 125 V. D.C. Main Distribution Buses 11DA; and/or 11DB and/or 11DC.	Site Emergency

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
9. Control Room Evacuation	1. Scram Reactor & Evacuate Control Room	1. Required to monitor reactor response to shut-down/cooldown from outside the Control Room.	Alert
	2. Scram Reactor & Evacuate Control Room.	1. Unable to establish verification of Reactor response from outside the Control Room within 15 minutes.	Site Emergency

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
10. Fire	1. Fire lasting more than 10 minutes.	<u>Any</u> of the following: 1. Observation/Notification 2. Fire detection device alarm	Unusual Event
	2. Fire defeating <u>one</u> safety system electrical division.	1. Observation of event.	Alert
	3. Fire compromising the functions of E.S.F. systems.	1. Fire that defeats <u>more than one</u> safety system electrical division.	Site Emergency
11. Plant Shutdown Function	1. Loss of functions needed for plant cold shutdown.	1. Loss of both standby service water loops. 2. Loss of <u>any two</u> of the following: a. Main condenser b. Safety/relief valve capability c. RCIC system d. Loss of steam condensing mode of "A" & "B" RHR.	Alert
	2. Failure of Control Rods to bring the reactor subcritical (no plant transient).	1. Following valid scram initiation signal with partial control rod insertions. AND 2. Rx still critical or predicted critical.	Alert
	3. Failure of Control Rods to bring the reactor subcritical.	1. Following valid scram initiation signal, inability to insert sufficient control rods to bring the reactor subcritical. AND 2. Failure of both standby liquid control loops to inject into reactor vessel. OR 3. Failure of SLC system to bring reactor subcritical after poison injection.	Site Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
11. Plant Shutdown Function (CONT'D)	4. Transient requiring operation of shutdown systems with failure to scram with continued power generation but no core damage immediately evident.	1. Verification of transient AND 2. Control rods incapable of being inserted to bring reactor subcritical OR 3. SBLC is initiated and injecting	Site Emergenc
	5. Transient requiring operation of shutdown systems with failure to scram with continued power generation and core damage immediately evident.	1. Verification of transient AND 2. Control rods incapable of being inserted to bring reactor subcritical And 3. Failure of both standby liquid control loops to inject into the reactor vessel OR 4. Failure of standby liquid control system to bring reactor subcritical after poison injection	General Emergency
12. Abnormal In-plant Radiation/Air-borne Levels	1. Unexpected high radiation or air-borne contamination levels greater than 1000 times normal set points.  Note: Set point is determined based on background levels.	1. Alarm with recorder verification of area radiation monitor reading greater than 1000 times set point  2. CAM (Continuous Air Monitor) reading greater than 1000 times set point.	Alert

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
13. Fuel Handling Accident	1. Fuel handling accident with release of radioactivity to Containment Building or to Auxiliary Building	1. Observation of event 2. High alarm on one or more fuel handling area radiation monitors and verification on recorder 3. CAM (Continuous Air Monitor) exceeding setpoints	Alert
	2. Major damage to more than one spent fuel assembly in Containment or Auxiliary Buildings (eg. large object damages fuel or water loss below fuel level	1. Observation of event causing structural damage to more than one fuel assembly OR 2. Low water level in spent fuel pool below normal level and unable to restore level to normal AND 1. High alarm on fuel handling area ventilation radiation monitor OR 2. High alarm on Containment ventilation radiation monitor	Site Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
14. Contaminated Injured/Overexposed Personnel	1. Transportation of overexposed and/or contaminated injured individual from site to hospital	1. Observation of event.	Unusual Event
15. Security Threat	1. Any Initiation of Security Contingency Plan.	1. Observation of event reported by Security.	Unusual Event
	2. Ongoing Security Compromise	1. Adversaries commanding area of plant, but not controlling shutdown capability or vital areas.	Alert
	3. Imminent Loss of Physical Control of Plant	1. Physical attack on the plant involving imminent occupancy of the Control Room, SD Panel and other Vital areas.	Site Emergency
	4. Loss of Physical Control of the Facility	1. Physical attack on the plant has resulted in unauthorized personnel occupying the Control Room or any other vital area as described in the modified amended Security Plan.	General Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
16. Hazards to Plant Operations	1. Hazards being experienced or projected with the <u>potential</u> for endangering the plant. a. Onsite aircraft crash or unusual aircraft activity over station. b. Onsite train derailment. c. Onsite explosion d. Onsite toxic or flammable gas release that threatens personnel	1. Observation of event.	Unusual Event
	e. Turbine Rotating component failure causing rapid plant shutdown	1. Observation of event	Unusual Event



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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
16. Hazards to Plant Operations (CONT'D)	2. Other hazards being experienced or projected which have a significant potential for affecting plant safety: <ul style="list-style-type: none"> <li>a. Aircraft crash on facility</li> <li>b. Missile impacts on facility with resultant damage</li> <li>c. Known explosion at facility resulting in major damage to plant structures or equipment</li> <li>d. Entry of toxic or flammable gases into facility area that threatens to render safety related equipment inoperable</li> <li>e. Turbine failure causing casing penetration</li> </ul>	<u>Any of the following:</u> <ol style="list-style-type: none"> <li>1. Observation of an aircraft into plant structures</li> <li>2. Observation of missile impact on plant structures</li> <li>3. Observation of damage by explosion</li> <li>4. Observation of warning from offsite verified by detection of gases (using portable or installed instrumentation) which exists in concentrations which exceed either the limits of flammability or toxicity</li> <li>5. Observation of event.</li> </ol>	Alert
	3. Other hazards being experienced or projected with plant not in cold shutdown. <ul style="list-style-type: none"> <li>a. Aircraft crash into vital structures</li> <li>b. Missile or explosion impact on facility rendering severe damage to shutdown equipment</li> <li>c. Entry of toxic or flammable gases into vital areas</li> </ul>	<u>Any of the following:</u> <ol style="list-style-type: none"> <li>1. Aircraft crash causing damage or fire in Containment, Auxiliary, Control, or Turbine Buildings</li> <li>2. Missile impact or explosion causes loss of functions needed for hot shutdown (see step 6 above)</li> <li>3. Entry of toxic or flammable gases (confirmed by portable or installed detection equipment readings exceeding limits of toxicity or flammability)</li> </ol>	Site Emergency

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## EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
17. Natural Events	1. Natural events near site a. Earthquake b. Tornado c. Hurricane d. Flood	1. Seismic recording system acceleration alarm 2. Tornado observed at site 3. Hurricane warning issued for site vicinity 4. River reaches 100' flood stage level	Unusual Event
	2. Severe natural event near site a. Earthquake greater than OBE level b. Tornado striking facility c. Hurricane winds near design levels d. Flood	Any of the following: 1. Containment or Drywell OBE alarm 2. Observation of event 3. Sustained winds measured greater than 73 mph at station 4. River water reaches the restricted fenced area of the site	Alert
	3. Severe natural event near site being experienced or projected with plant not in cold shutdown a. Earthquake greater than SSE levels b. Winds in excess of design levels	Any of the following: 1. Containment or Drywell Safe Shutdown Earthquake alarm 2. Winds greater than 90 mph onsite (sustained)	Site Emergency
	4. Any major internal or external events (e.g., fires, earthquakes substantially beyond design basis) which could cause massive common damage to plant systems.	1. As determined by Emergency Director	General Emergency
18. Other	1. Seizure of one recirculation pump OR Recirculation pump shaft break	All of the following: 1. Rapid decrease in recirculation loop flow 2. Rapid increase in reactor water level 3. Reactor scram (Hi Water Level)	Unusual Event

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
18. Other (CONT'D)	2. Rod drop accident	<u>All</u> of the following: 1. Reactor high flux scram 2. Control rod withdrawal block alarm 3. Control rod drift alarm	Alert
	3. Safety related instrument line break	1. Observation of event	Unusual Event
	4. Reactor vessel liquid line break outside containment with failure to isolate it.  AND Loss of feed water/condensate system capability to makeup	<u>All</u> of the following: 1. Reactor scram low level 2. CST/RWST/Condenser pumped to minimum levels 3. Reactor water level low/low alarms - 41.6" HPCS initiation 4. No means available to isolate leakage	Site Emergency
	5. Liquid radwaste tank failure	<u>Any</u> of the following: 1. Unexplained decrease of storage tank level as indicated by remote level indication. 2. Excessive pumpage from floor drain pump  3. Radwaste Storage Hi Airborne/Alarm 4. Observation of event	Alert
	6. Significant loss of vital accident assessment or communications capability or loss of effluent monitoring capability requiring shutdown.	<u>Any</u> of the following: 1. Loss of all meteorological equipment. 2. Degradation of offsite communication capability to only one source. 3. Loss of off-gas post-treatment radiation effluent monitors <u>and</u> loss of Radwaste Bldg. vent stack radiation monitors.	Unusual Event
	7. Loss of all annunciators in Control Room & B.O.P. Computer less than 15 minutes.	1. Observation of event. AND 2. Plant is not in cold shutdown. OR 3. Plant transient has not occurred.	Alert

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
18. Other (CONT'D)	8. Loss of all annunciators in Control Room and B.O.P. Computer for more than 15 minutes.	1. Loss of Annunciators & loss of B.O.P. and/or Honeywell Computers for more than 15 minutes. AND 2. Plant is not in cold shut-down. OR 3. PLANT TRANSIENT initiated while all Annunciation is lost.	Site Emergency
	9. Other plant conditions exist that warrant increased awareness on the part of a plant operating staff or state and/or local offsite authorities <u>or</u> requires plant shut-down under Tech. Spec. requirements <u>or</u> involve other than normal controlled shutdown (e.g., cool-down rate exceeding Tech. Spec. limits, pipe cracking found during operation)	1. Observation of event	Unusual Event
	10. Other plant conditions exist that warrant precautionary activation of Technical Support Center and placing near site emergency operations facility and other key plant personnel on standby	1. As determined by Emergency Director	Alert
	11. Other plant conditions exist that warrant activation of emergency facilities and radiation monitoring teams <u>or</u> a precautionary notification to the public near the site	1. As determined by Emergency Director	Site Emergency

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EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
18. Other (CONT'D)	<p>12. Other plant conditions exist that make release of large amounts of radioactivity in a short time possible</p> <p>a. Transient (e.g., loss of offsite power) <u>AND</u></p> <p>b. failure of requisite core shut down systems</p> <p style="text-align: center;">-NOTE-</p> <p>The above conditions could lead to core melt in several hours with containment failure likely. (More severe consequences if recirc-pump trips do not function)</p>	<p>1. The following site emergency conditions exists: Category 2, condition #3 and category 8, conditions #3&amp;6 <u>AND</u> Suppression pool cooling has <u>not</u> been automatically <u>or</u> manually initiated following a 30 minute time lapse <u>OR</u></p> <p>2. The following alert emergency condition exists: Category 11, condition #2 <u>AND</u> Conditions are expected to remain in excess of 10 hours</p>	General Emergency
	<p>13. Other plant conditions exist that make release of large amounts of radioactivity in a short time possible</p> <p>a. Small or large LOCA's with failure of ECCS to perform leading to core melt degradation or melt in minutes to hours. Loss of containment integrity may be imminent</p>	<p><u>Any</u> of the following:</p> <p>1. The following site emergency conditions exists: Category 2, condition #3 and category 8, conditions #3 and #6 <u>AND</u> Suppression pool cooling has <u>not</u> been automatically <u>or</u> manually initiated following a 30 minute time lapse</p> <p>2. The following alert emergency condition exists: Category 11, condition #2</p>	General Emergency

EMERGENCY CLASSIFICATIONS (TABLE 1)

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL EVENTS	EMERGENCY CLASSIFICATION
18. Other (CONT'D)	<ul style="list-style-type: none"> <li>b. Small or large LOCA occurs and containment performance is unsuccessful affecting longer term success of the ECCS. Could lead to core degradation or melt in several hours without containment boundary</li> <li>c. Shutdown occurs but requisite decay heat removal systems (e.g., RHR) or non-safety systems heat removal means are rendered unavailable. Core degradation or melt could occur in about ten hours with subsequent containment failure</li> </ul>	<p align="center"><u>AND</u></p> Conditions are expected to remain in excess of 10 hours	General Emergency

Volume 10

10-S-01-2

Section 01

Revision 2

Date: 4/27/82

EMERGENCY PLAN PROCEDURE

UNUSUAL EVENT

SAFETY RELATED

Prepared: CE Lulley RR Weldon  
Reviewed: Leh Stuart Paul A. Jones Centley Hayer  
Asst. Plant Mgr. Nuclear Support Mgr. Plt. Quality Supt.  
PSRC: Leh Stuart 4/26/82  
Approved: O. K. M. G. 4/27/82  
Plant Manager

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	
2	

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## 1.0 PURPOSE

1.1 To provide for proper actions and notifications to adequately respond to events or conditions classified in accordance with Emergency Plan Procedure 10-S-01-1, Activation of Emergency Plan, as an Unusual Event.

## 2.0 RESPONSIBILITIES

2.1 The Shift Superintendent, acting as the interim Emergency Director, shall initiate this procedure and implement the emergency actions until relieved by the On-Call Manager.

## 3.0 REFERENCES

3.1 GGNS Emergency Plan

## 4.0 ATTACHMENTS

4.1 Attachment I - Guidelines for Reclassification of the Emergency

4.2 Attachment II - Initial and Follow-up Notification Form

## 5.0 DEFINITIONS

5.1 Unusual Event - The occurrence of an event or events which indicate a potential degradation of the level of safety of the plant. The situation may be one in which time is available to take precautionary and constructive steps to prevent a more serious event or to mitigate any consequences that may occur. No significant release of radioactive material is expected. Therefore, offsite radiological response is not expected to be necessary. No formal activation of the various centers, such as the Technical Support Center, is anticipated, although the room may be used for communications, debriefing, and meetings.

## 6.0 DETAILS

6.1 Initial Emergency Actions (Emergency Director)

6.1.1 Announce the nature and location of the emergency using the PA system, if necessary, to warn personnel in the affected area. Evacuate affected areas, if necessary, to protect personnel in accordance with Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel.



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- 6.1.2 Implement plant operating procedures as required to place the affected unit in a safe condition.
- 6.1.3 Designate an individual as Communicator to perform proper notifications.
- 6.1.4 Designate shift personnel to perform emergency corrective and assessment actions.
- 6.1.5 Initiate any of the following Emergency Plan Procedures as required:
  - a. 10-S-01-8, Fire
  - b. 10-S-01-10, Natural Occurrences
  - c. 10-S-01-19, Personnel Injury
  - d. 10-S-01-9, Release of Toxic Material
  - e. 10-S-01-11, Evacuation of Onsite Personnel
- 6.1.6 Continually assess the condition of the Unusual Event in order to determine if it may be necessary to reclassify the emergency. Use the guidelines provided in Attachment I.

## 6.2 Notifications

- 6.2.1 The Emergency Director is to complete the Initial Notification or Follow-Up Notification Form, similar to Attachment II, and implement Emergency Plan Procedure 10-S-01-6, Notification of Offsite Agencies and Plant On-Call Emergency Personnel.

### NOTE

Initial and Follow-Up Notification Forms are available in the emergency facilities and from Health Physics.

### NOTE

Since an Unusual Event does not involve a radiological release, the following information need not be supplied to offsite agencies: 1) radiological release information, 2) meteorological information, 3) offsite dose radiological consequences, and 4) recommended protective actions.

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6.2.2 The Emergency Director is to complete the Follow-Up Notification Form as information is available and instruct the Communicator to notify the offsite agencies.

### 6.3 Follow-up Actions (Emergency Director)

6.3.1 Initiate the Emergency Director's Log and record the following types of information, as appropriate, throughout the course of the emergency:

- a. Time, shift, date the emergency is declared.
- b. Names of personnel assuming key positions in the emergency organization, if applicable.
- c. Plant status at the time of the declaration of the emergency.
- d. Initial notification of offsite agencies.
- e. Major steps taken during the emergency (i.e., alarms sounded, procedures implemented, major equipment status changes, etc.)
- f. Important data received (i.e., radiation survey results, major plant parameters pertaining to the emergency, etc.).
- g. Recommendations given to or received from offsite agencies, if applicable.
- h. Final notifications of offsite agencies upon close-out of the emergency.

6.3.2 Assure that no further activation of the Emergency Organization is required.

6.3.3 The Emergency Director should consult with state and local emergency response organizations prior to termination of the emergency classification.

6.3.4 Close out the Unusual Event with a verbal summary to offsite authorities followed by a written summary within 24 hours.

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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

PURPOSE: To establish general guidelines to be followed should changing plant conditions warrant reclassification of an emergency condition.

I. Upgrade Guidelines

- Should plant conditions appear to worsen, refer to EPP 10-S-01-1, Activation of Emergency Plan, to determine reclassification.

II. Downgrade/Termination Guidelines

A. General

1. Conditions which caused event have been terminated.
2. Circumstances which have arisen from the event are under control and the results of any and all pertinent data are evaluated.
3. All probability of reoccurrence of an event are removed, isolated or under control.

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fires	Removal/separation of any element of fire triangle.
Spill	Tanks, pipes, valves, any other problem sources are empty, isolated and out of service.

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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Airborne	Source identified and isolated and/or contained. Area controlled.
Explosion	Existing and potential hazards removed, destroyed and/or isolated.
Abnormal Effluent	Liquid discharge is terminated, tank re-sampled, and statistics verified. Public exposure to offsite radioactive material is reduced or eliminated.  Airborne - Source identified. Quantitative and qualitative analysis complete. Release is terminated and its cause is under complete control. All on and offsite monitoring data is evaluated. Public exposure to offsite radioactive material is reduced or eliminated.
Control Room Evacuation	Plant in normal emergency shutdown from remote stations. Cause of evacuation identified and under control. No abnormal radiological conditions exist.
Plant Shutdown Functions (not available or failed)	Unit is shut down by normal or emergency means. Unit is in cold shutdown and there is no potential for criticality in the foreseeable future.

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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fuel Handling Accident - New or Spent Fuel Damage, Channeled or Un- channeled	Fuel elements, segments, pellets not in a critical configuration. Airborne activity has been evaluated and accountability of components complete.
Water Loss - LOCA Abnormal Primary Coolant Leak	Source of water loss is defined. Ability to restore or maintain water level adequate for proper shielding.
Earthquake or Other Natural Disaster	The plant has been returned to a safe condition. Threat of after-shock has passed and any damage has been evaluated as to risk, if any.
Security Threat	Threat to site is terminated. Probability of reoccurrence has been removed, with the concurrence of Security Supervisor and state, local and federal officials.

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INITIAL AND FOLLOW-UP NOTIFICATION FORM

INITIAL NOTIFICATION FORM

Message No. \_\_\_\_\_  
 Date \_\_\_\_\_  
 Time \_\_\_\_\_

This is \_\_\_\_\_  
 (Name)

with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
 (Site)

Events are such that a/an:      Unusual Event      Site Area Emergency  
    Alert                              General Emergency

was declared at \_\_\_\_\_ hrs.

Brief description of event(s): \_\_\_\_\_  
 \_\_\_\_\_

The following information applies:

(1) Release: No, Yes    A) Gaseous    B) Liquid    C) Solid

If yes, supply the following information:

a. Wind Speed \_\_\_\_\_ mph

b. Wind direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
    (degrees)                              (A-R)

c. Recommended Protective Actions:

1. None    2. Shelter    3. Other \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

A comprehensive assessment of conditions is in progress at this time.  
 Detailed information and the results of the assessment will be provided in a  
 follow-up message to you as soon as they are available.

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INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Message No. \_\_\_\_\_  
Date \_\_\_\_\_  
Time \_\_\_\_\_

This is \_\_\_\_\_ with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
(Name) (Site)

Events are such that a/an: Unusual Event Site Area Emergency  
Alert General Emergency

was declared at \_\_\_\_\_ hrs.

This classification is (Escalated, De-escalated, Unchanged, Terminated) from the last report.

Reason for reclassification: \_\_\_\_\_

The following information applies:

Section A - Radiological Release Information - (N/A) [Circle for Unusual Event]

NOTE: If N/A, skip to Section D.

This information is: A) New Information B) Unchanged

- (1) Type of Radiological Release: Liquid; Gaseous; Other \_\_\_\_\_
- (2) Initial Time of Release \_\_\_\_\_ hrs.
- (3) Release Terminated: No, Yes Time Terminated \_\_\_\_\_ hrs.
- (4) Duration of Release: Known \_\_\_\_\_ or Total Projected \_\_\_\_\_  
(hrs.) (hrs.)
- (5) Release Rate: Monitored \_\_\_\_\_ Ci/sec or Calculated \_\_\_\_\_ Ci/sec
- (6) Release Elevation: Ground Level; Elevated

Section B - Meteorology - (N/A)

This information is: A) New Information B) Unchanged

- (1) Wind: Velocity \_\_\_\_\_ mph  
Direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
(degrees) (A-R)
- (2) Stability Class: A B C D E F G
- (3) Precipitation: None; Rain; Sleet; Snow; Hail

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INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Section C - Offsite Radiological Dose Consequences - (N/A)

This is: A) New Information B) Unchanged

- |                                   |                  |                           |                       |
|-----------------------------------|------------------|---------------------------|-----------------------|
| (1) Projected Whole Body Dose At: | <u>Dose Rate</u> | <u>Projected Duration</u> | <u>Projected Dose</u> |
| (A) Site Boundary                 | _____ mR/hr      | _____                     | _____ mRem            |
| (B) 2 Miles                       | _____ mR/hr      | _____                     | _____ mRem            |
| (C) 5 Miles                       | _____ mR/hr      | _____                     | _____ mRem            |
| (D) 10 Miles                      | _____ mR/hr      | _____                     | _____ mRem            |
- 
- |  |                       |
|--|-----------------------|
| (2) <u>Projected Thyroid Dose Commitment At:</u> | <u>Projected Dose</u> |
| (A) Site Boundary                                | _____ mRem            |
| (B) 2 Miles                                      | _____ mRem            |
| (C) 5 Miles                                      | _____ mRem            |
| (D) 10 Miles                                     | _____ mRem            |
- 
- (3) Affected Sectors \_\_\_\_\_

Section D - Emergency Response Considerations - (N/A)

This information is: A) New Information B) Unchanged

- (1) Recommended Action: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (2) License Emergency Actions Underway: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (3) Request for Offsite Support: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (4) Prognosis for Worsening or Termination of Event Based on Plant Information: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (5) Other Comments: None, Other \_\_\_\_\_
- \_\_\_\_\_



PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-3

Revision 2

Date: 4/27/82

EMERGENCY PLAN PROCEDURE

ALERT

SAFETY RELATED

Prepared: CE Hurley RR Weldon  
Reviewed: W. Stewart Paul A. Johnson Carl H. Hayes  
Asst. Plt. Mgr. Nuclear Support. Mgr. Plt. Quality Supt.  
PSRC: Paul A. Johnson 4/24/82  
Approved: C. K. M. Coy 4/27/82  
Plant Manager

List of Effective Pages:

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Atts. I-II

List of TCN's Incorporated:

Revision

TCN No.

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Title: Alert	No.: 10-S-01-3	Revision: 2	Page: 1
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## 1.0 PURPOSE

- 1.1 To provide for proper actions and notification to adequately respond to events or conditions classified in accordance with Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan, as an Alert.

## 2.0 RESPONSIBILITIES

- 2.1 The Shift Superintendent, acting as the interim Emergency Director, shall initiate this procedure and implement the required emergency actions until relieved by the On-Call Manager.

## 3.0 REFERENCES

- 3.1 GGNS Emergency Plan

## 4.0 ATTACHMENTS

- 4.1 Attachment I - Guidelines for Reclassification of the Emergency  
4.2 Attachment II - Initial and Follow-up Notification Form

## 5.0 DEFINITIONS

- 5.1 Alert - The occurrence of an event or events which involve an actual or potential substantial degradation of the level of safety of the plant. The potential exists for limited releases of radioactivity in excess of Technical Specification limits, however, it is unlikely that an offsite hazard will be created. Limited plant evacuation of certain plant areas may become necessary. It is anticipated that no response will be necessary by offsite support agencies. The Technical Support Center and Operational Support Center will be activated for an Alert. Activation of the Emergency Operations Facility and Site Access Point is optional at the discretion of the Emergency Director.

## 6.0 DETAILS

- 6.1 Initial Emergency Actions (Emergency Director)

- 6.1.1 Announce the nature and location of the emergency using the PA system to the entire site.

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- 6.1.2 If the Alert affects any manned area of the plant (other than the Control Room), evacuate the affected areas to protect personnel, as necessary in accordance with Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel.
- 6.1.3 Implement plant operating procedures as required to place the affected unit in a safe condition.
- 6.1.4 Designate an individual as Communicator to perform proper notifications.
- 6.1.5 Designate shift personnel to perform emergency corrective and assessment actions.
- 6.1.6 Activate the Technical Support Center and Operational Support Center in accordance with Emergency Plan Procedure 10-S-01-7, Activation of Emergency Facilities. If necessary, activate the Emergency Operations Facility and Site Access Point.
- 6.1.7 Initiate any of the following Emergency Plan Procedures, as required, through the Operational Support Center Coordinator:
  - a. 10-S-01-18, Personnel Search and Rescue
  - b. 10-S-01-8, Fire
  - c. 10-S-01-10, Natural Occurrences
  - d. 10-S-01-19, Personnel Injury
  - e. 10-S-01-17, Emergency Personnel Dosimetry Issue
  - f. 10-S-01-21, Evacuating Personnel and Vehicle Contamination Control
  - g. 10-S-01-9, Release of Toxic Material

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6.1.8 Initiate the following Emergency Plan Procedures, as required, through the Security Coordinator:

- a. 10-S-01-16, Personnel Accountability
- b. 10-S-01-11, Evacuation of Onsite Personnel

## 6.2 Notifications

6.2.1 The Emergency Director is to complete the Initial Notification or Follow-up Notification Form, similar to Attachment II.

### NOTE

Initial and Follow-up Notification Forms are available in the emergency facilities and from Health Physics.

6.2.2 The Emergency Director is to implement Emergency Plan Procedure 10-S-01-6, Notification of Offsite Agencies and Plant On-Call Emergency Personnel.

6.2.3 The Emergency Director is to complete the Follow-up Notification Form as information is available and instruct the Communicator to notify offsite agencies as necessary.

## 6.3 Follow-up Actions (Emergency Director)

6.3.1 Initiate the Emergency Director's Log and record the following types of information as appropriate throughout the course of the emergency:

- a. Time, shift, date the emergency is declared.
- b. Names of personnel assuming key positions in the emergency organization, if applicable.
- c. Plant status at the time of the declaration of the emergency.
- d. Initial notification of offsite agencies.

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- e. Major steps taken during the emergency (i.e., alarms sounded, procedures implemented, major equipment status changes, etc.)
  - f. Important data received (i.e., radiation survey results, major plant parameters pertaining to the emergency, etc.).
  - g. Recommendations given to or received from offsite agencies, if applicable.
  - h. Final notifications of offsite agencies upon close-out of the emergency.
- 6.3.2 Initiate any of the following Emergency Plan Procedures, as required, through the Radiation Protection Manager:
- a. 10-S-01-12, Offsite Dose Calculations
  - b. 10-S-01-13, Onsite Radiological Monitoring
  - c. 10-S-01-14, Offsite Radiological Monitoring
  - d. 10-S-01-15, Site Access Point Operations
- 6.3.3 Continually assess the Alert condition in order to determine if it may be necessary to reclassify the emergency. Use of the guidelines provided in Attachment I.

NOTE

The Emergency Director should consult with state and local emergency response organizations prior to downgrading or terminating the emergency classification.

- 6.3.4 Initiate Emergency Plan Procedure 10-S-01-22, Reentry and Recovery, if extended actions are necessary to return the plant to its normal operating condition or if reentry is necessary into potential radiation, contamination, airborne, or hazardous environment areas caused by the emergency, and the following recovery phase criteria have been met:

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- a. Radiation levels in all in-plant areas are stable or decreasing with time.
  - b. Releases of radioactive materials to the environment from the plant are under control or have ceased.
  - c. Any fire or similar emergency condition is controlled or has ceased.
- 6.3.5 Close out the Alert by a verbal summary to offsite authorities followed by a written summary within 8 hours.

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Attachment I	Page 1 of 3

GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

PURPOSE: To establish general guidelines to be followed should changing plant conditions warrant reclassification of an emergency condition.

I. Upgrade Guidelines

- Should plant conditions appear to worsen, refer to EPP 10-S-01-1, Activation of Emergency Plan, to determine reclassification.

II. Downgrade/Termination Guidelines

A. General

1. Conditions which caused event have been terminated.
2. Circumstances which have arisen from the event are under control and the results of any and all pertinent data are evaluated.
3. All probability of reoccurrence of an event are removed, isolated or under control.

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fires	Removal/separation of any element of fire triangle.
Spill	Tanks, pipes, valves, any other problem sources are empty, isolated and out of service.

10-S-01-3	Rev. 2
Attachment I	Page 2 of 3

GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Airborne	Source identified and isolated and/or contained. Area controlled.
Explosion	Existing and potential hazards removed, destroyed and/or isolated.
Abnormal Effluent	Liquid discharge is terminated, tank re-sampled, and statistics verified. Public exposure to offsite radioactive material is reduced or eliminated.  Airborne - Source identified. Quantitative and qualitative analysis complete. Release is terminated and its cause is under complete control. All on and offsite monitoring data is evaluated. Public exposure to offsite radioactive material is reduced or eliminated.
Control Room Evacuation	Plant in normal emergency shutdown from remote stations. Cause of evacuation identified and under control. No abnormal radiological conditions exist.
Plant Shutdown Functions (not available or failed)	Unit is shut down by normal or emergency means. Unit is in cold shutdown and there is no potential for criticality in the foreseeable future.



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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fuel Handling Accident - New or Spent Fuel Damage, Channeled or Un- channeled	Fuel elements, segments, pellets not in a critical configuration. Airborne activity has been evaluated and accountability of components complete.
Water Loss - LOCA Abnormal Primary Coolant Leak	Source of water loss is defined. Ability to restore or maintain water level adequate for proper shielding.
Earthquake or Other Natural Disaster	The plant has been returned to a safe condition. Threat of after-shock has passed and any damage has been evaluated as to risk, if any.
Security Threat	Threat to site is terminated. Probability of reoccurrence has been removed, with the concurrence of Security Supervisor and state, local and federal officials.

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INITIAL AND FOLLOW-UP NOTIFICATION FORM

INITIAL NOTIFICATION FORM

Message No. \_\_\_\_\_  
Date \_\_\_\_\_  
Time \_\_\_\_\_

This is \_\_\_\_\_  
(Name)

with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
(Site)

Events are such that a/an: Unusual Event Site Area Emergency  
Alert General Emergency

was declared at \_\_\_\_\_ hrs.

Brief description of event(s): \_\_\_\_\_  
\_\_\_\_\_

The following information applies:

(1) Release: No, Yes A) Gaseous B) Liquid C) Solid

If yes, supply the following information:

a. Wind Speed \_\_\_\_\_ mph

b. Wind direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
(degrees) (A-R)

c. Recommended Protective Actions:

1. None 2. Shelter 3. Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A comprehensive assessment of conditions is in progress at this time. Detailed information and the results of the assessment will be provided in a follow-up message to you as soon as they are available.

10-S-01-3	Rev. 2
Attachment II	Page 2 of 3

INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Message No. \_\_\_\_\_  
Date \_\_\_\_\_  
Time \_\_\_\_\_

This is \_\_\_\_\_ with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
(Name) (Site)

Events are such that a/an: Unusual Event Site Area Emergency  
Alert General Emergency

was declared at \_\_\_\_\_ hrs.

This classification is (Escalated, De-escalated, Unchanged, Terminated) from the last report.

Reason for reclassification: \_\_\_\_\_

The following information applies:

Section A - Radiological Release Information - (N/A) [Circle for Unusual Event]

NOTE: If N/A, skip to Section D.

This information is: A) New Information B) Unchanged

- (1) Type of Radiological Release: Liquid; Gaseous; Other \_\_\_\_\_
- (2) Initial Time of Release \_\_\_\_\_ hrs.
- (3) Release Terminated: No, Yes Time Terminated \_\_\_\_\_ hrs.
- (4) Duration of Release: Known \_\_\_\_\_ or Total Projected \_\_\_\_\_  
(hrs.) (hrs.)
- (5) Release Rate: Monitored \_\_\_\_\_ Ci/sec or Calculated \_\_\_\_\_ Ci/sec
- (6) Release Elevation: Ground Level; Elevated

Section B - Meteorology - (N/A)

This information is: A) New Information B) Unchanged

- (1) Wind: Velocity \_\_\_\_\_ mph  
Direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
(degrees) (A-R)
- (2) Stability Class: A B C D E F G
- (3) Precipitation: None; Rain; Sleet; Snow; Hail

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Attachment II	Page 3 of 3

INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Section C - Offsite Radiological Dose Consequences - (N/A)

This is: A) New Information B) Unchanged

- |                                   |                  |                           |                       |
|-----------------------------------|------------------|---------------------------|-----------------------|
| (1) Projected Whole Body Dose At: | <u>Dose Rate</u> | <u>Projected Duration</u> | <u>Projected Dose</u> |
| (A) Site Boundary                 | _____ mR/hr      | _____                     | _____ mRem            |
| (B) 2 Miles                       | _____ mR/hr      | _____                     | _____ mRem            |
| (C) 5 Miles                       | _____ mR/hr      | _____                     | _____ mRem            |
| (D) 10 Miles                      | _____ mR/hr      | _____                     | _____ mRem            |
- 
- |  |                       |
|--|-----------------------|
| (2) <u>Projected Thyroid Dose Commitment At:</u> | <u>Projected Dose</u> |
| (A) Site Boundary                                | _____ mRem            |
| (B) 2 Miles                                      | _____ mRem            |
| (C) 5 Miles                                      | _____ mRem            |
| (D) 10 Miles                                     | _____ mRem            |
- 
- (3) Affected Sectors \_\_\_\_\_

Section D - Emergency Response Considerations - (N/A)

This information is: A) New Information B) Unchanged

- (1) Recommended Action: None, Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- (2) License Emergency Actions Underway: None, Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- (3) Request for Offsite Support: None, Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- (4) Prognosis for Worsening or Termination of Event Based on Plant Information: None, Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- (5) Other Comments: None, Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Volume 10

10-S-01-4

Section 01

Revision 2

Date: 5/03/82

EMERGENCY PLAN PROCEDURE

SITE EMERGENCY

SAFETY RELATED

Prepared: CE Guly RR Wende

Reviewed: Lois Stuart Paul A. Andrews Castleberg  
Asst. Plt. Manager Nuclear Support Mgr. Plt. Qual. Supt.

PSRC: Paul A. Andrews 4/24/82

Approved: C.E. Guly 4/27/82  
Plant Manager

List of Effective Pages:

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Atts. I-II

List of TCN's Incorporated:

Revision

TCN No.

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2

Title: Site Emergency	No.: 10-S-01-4	Revision: 2	Page: 1
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## 1.0 PURPOSE

1.1 To provide for proper actions and notifications to adequately respond to events or conditions classified in accordance with Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan, as a Site Emergency.

## 2.0 RESPONSIBILITIES

2.1 The Shift Superintendent, acting as the interim Emergency Director, shall initiate this procedure and implement the required emergency actions until relieved by the On-Call Manager.

## 3.0 REFERENCES

3.1 GGNS Emergency Plan

## 4.0 ATTACHMENTS

4.1 Attachment I - Guidelines for Reclassification of the Emergency

4.2 Attachment II - Initial and Follow-up Notification Form

## 5.0 DEFINITIONS

5.1 Site Emergency - The occurrence of an event or events which involve actual or likely major failures of plant functions needed for protection of the public. There exists a significant actual or potential release of radioactive material and some radiation exposure to the near-site public. Therefore, if not already accomplished, the plant will activate the Technical Support Center, the Operational Support Center, the Emergency Operations Facility, and the Site Access Point. Either limited plant or site evacuation may become necessary. Assistance from offsite support agencies may be necessary.

## 6.0 DETAILS

6.1 Initial Emergency Actions (Emergency Director)

6.1.1 Announce the nature and location of the emergency using the PA system to the entire site.

Title: Site Emergency	No.: 10-S-01-4	Revision: 2	Page: 2
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- 6.1.2 If the Site Emergency affects any manned area of the plant, evacuate the affected areas to protect plant personnel, if necessary in accordance with Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel.
- 6.1.3 Implement plant operating procedures, as required, to place the affected unit in a safe condition.
- 6.1.4 Designate an individual as Communicator to perform proper notifications.
- 6.1.5 Designate shift personnel to perform emergency corrective and assessment actions.
- 6.1.6 Activate the following in accordance with Emergency Plan Procedure 10-S-01-7, Activation of Emergency Facilities:
  - a. Technical Support Center (TSC)
  - b. Operational Support Center (OSC)
  - c. Emergency Operations Facility (EOF)
  - d. Site Access Point (SAP)
- 6.1.7 Initiate any of the following Emergency Plan Procedures, as required, through the Operational Support Center Coordinator:
  - a. 10-S-01-18, Personnel Search and Rescue
  - b. 10-S-01-8, Fire
  - c. 10-S-01-10, Natural Occurrences
  - d. 10-S-01-19, Personnel Injury

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- e. 10-S-01-17, Emergency Personnel Dosimetry Issue

NOTE

This procedure must be initiated.

- f. 10-S-01-21, Evacuating Personnel and Vehical Contamination Control
- g. 10-S-01-9, Release of Toxic Material

6.1.8 Initiate the following Emergency Plan Procedures, as required, through the Security Coordinator:

- a. 10-S-01-16, Personnel Accountability
- b. 10-S-01-11, Evacuation of Onsite Personnel

6.2 Notifications

6.2.1 The Emergency Director is to complete the Initial Notification or Follow-up Notification Form, similar to Attachment II.

NOTE

Initial and Follow-up Notification Forms are available in the emergency facilities and from Health Physics.

- 6.2.2 The Emergency Director is to implement Emergency Plan Procedure 10-S-01-6, Notification of Offsite Agencies and Plant On-Call Emergency Personnel.
- 6.2.3 The Emergency Director is to complete the Follow-up Notification Form as information is available and instruct the Communicator to notify offsite agencies as necessary.



Title: Site Emergency	No.: 10-S-01-4	Revision: 2	Page: 4
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### 6.3 Follow-up Actions (Emergency Director)

- 6.3.1 Initiate the Emergency Director's Log and record the following types of information, as appropriate, in it throughout the course of the emergency:
- a. Time, shift, date the emergency is declared.
  - b. Names of personnel assuming key positions in the emergency organization, if applicable.
  - c. Plant status at the time of the declaration of the emergency.
  - d. Initial notification of offsite agencies.
  - e. Major steps taken during the emergency (i.e., alarms sounded, procedures implemented, major equipment status changes, etc.)
  - f. Important data received (i.e., radiation survey results, major plant parameters pertaining to the emergency, etc.).
  - g. Recommendations given to or received from offsite agencies, if applicable.
  - h. Final notifications of offsite agencies upon close-out of the emergency.
- 6.3.2 Initiate any of the following Emergency Plan Procedures, as required, through the Radiation Protection Manager:
- a. 10-S-01-12, Offsite Dose Calculations
  - b. 10-S-01-13, Onsite Radiological Monitoring

Title: Site Emergency	No.: 10-S-01-4	Revision: 2	Page: 5
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- c. 10-S-01-14, Offsite Radiological Monitoring
  - d. 10-S-01-15, Site Access Point
  - e. 10-S-01-20, Administration of Thyroid Blocking Agents
- 6.3.3 Continually assess the condition of the Site Emergency in order to determine if it may be necessary to reclassify the emergency. Use the guidelines provided in Attachment I.

NOTE

The Emergency Director should consult with state and local emergency response organizations prior to downgrading or terminating the emergency classification.

- 6.3.4 Initiate Emergency Plan Procedure 10-S-01-22, Reentry and Recovery, (EPP-22), if extended actions must be performed to return the plant to its normal operating condition or if reentry is necessary into potential radiation, contamination, airborne, or hazardous environment areas caused by the emergency, and the following recovery phase criteria have been met:
- a. Radiation levels in all in-plant areas are stable or are decreasing with time.
  - b. Releases of radioactive material to the environment from the plant are under control or have ceased.
  - c. Any fire or similar condition is controlled or has ceased.
- 6.3.5 Close out or recommend reduction of the Site Emergency by briefing offsite authorities at the EOF and by phone followed by a written summary within eight hours.

10-S-01-4	Rev. 2
Attachment I	Page 1 of 3

GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

PURPOSE: To establish general guidelines to be followed should changing plant conditions warrant reclassification of an emergency condition.

I. Upgrade Guidelines

- Should plant conditions appear to worsen, refer to EPP 10-S-01-1, Activation of Emergency Plan, to determine reclassification.

II. Downgrade/Termination Guidelines

A. General

1. Conditions which caused event have been terminated.
2. Circumstances which have arisen from the event are under control and the results of any and all pertinent data are evaluated.
3. All probability of reoccurrence of an event are removed, isolated or under control.

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fires	Removal/separation of any element of fire triangle.
Spill	Tanks, pipes, valves, any other problem sources are empty, isolated and out of service.

10-S-01-4	Rev. 2
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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Airborne	Source identified and isolated and/or contained. Area controlled.
Explosion	Existing and potential hazards removed, destroyed and/or isolated.
Abnormal Effluent	Liquid discharge is terminated, tank re-sampled, and statistics verified. Public exposure to offsite radioactive material is reduced or eliminated.  Airborne - Source identified. Quantitative and qualitative analysis complete. Release is terminated and its cause is under complete control. All on and offsite monitoring data is evaluated. Public exposure to offsite radioactive material is reduced or eliminated.
Control Room Evacuation	Plant in normal emergency shutdown from remote stations. Cause of evacuation identified and under control. No abnormal radiological conditions exist.
Plant Shutdown Functions (not available or failed)	Unit is shut down by normal or emergency means. Unit is in cold shutdown and there is no potential for criticality in the foreseeable future.

10-S-01-4	Rev. 2
Attachment I	Page 3 of 3

GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fuel Handling Accident - New or Spent Fuel Damage, Channeled or Un- channeled	Fuel elements, segments, pellets not in a critical configuration. Airborne activity has been evaluated and accountability of components complete.
Water Loss - LOCA Abnormal Primary Coolant Leak	Source of water loss is defined. Ability to restore or maintain water level adequate for proper shielding.
Earthquake or Other Natural Disaster	The plant has been returned to a safe condition. Threat of after-shock has passed and any damage has been evaluated as to risk, if any.
Security Threat	Threat to site is terminated. Probability of reoccurrence has been removed, with the concurrence of Security Supervisor and state, local and federal officials.

10-S-01-4	Rev. 2
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INITIAL AND FOLLOW-UP NOTIFICATION FORM

INITIAL NOTIFICATION FORM

Message No. \_\_\_\_\_  
 Date \_\_\_\_\_  
 Time \_\_\_\_\_

This is \_\_\_\_\_  
(Name)

with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
(Site)

Events are such that a/an:      Unusual Event      Site Area Emergency  
    Alert                                      General Emergency

was declared at \_\_\_\_\_ hrs.

Brief description of event(s): \_\_\_\_\_

The following information applies:

(1) Release: No, Yes    A) Gaseous    B) Liquid    C) Solid

If yes, supply the following information:

a. Wind Speed \_\_\_\_\_ mph

b. Wind direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
(degrees)                                      (A-R)

c. Recommended Protective Actions:

1. None    2. Shelter    3. Other \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

A comprehensive assessment of conditions is in progress at this time. Detailed information and the results of the assessment will be provided in a follow-up message to you as soon as they are available.

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Attachment II	Page 2 of 3

INITIAL AND FOLLOW-UP NOTIFICATION FORM

## FOLLOW-UP NOTIFICATION FORM

Message No. \_\_\_\_\_  
 Date \_\_\_\_\_  
 Time \_\_\_\_\_

This is \_\_\_\_\_ with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
 (Name) (Site)

Events are such that a/an: Unusual Event Site Area Emergency  
 Alert General Emergency

was declared at \_\_\_\_\_ hrs.

This classification is (Escalated, De-escalated, Unchanged, Terminated) from the last report.

Reason for reclassification: \_\_\_\_\_

The following information applies:

Section A - Radiological Release Information - (N/A) [Circle for Unusual Event]

NOTE: If N/A, skip to Section D.

This information is: A) New Information B) Unchanged

- (1) Type of Radiological Release: Liquid; Gaseous; Other \_\_\_\_\_
- (2) Initial Time of Release \_\_\_\_\_ hrs.
- (3) Release Terminated: No, Yes Time Terminated \_\_\_\_\_ hrs.
- (4) Duration of Release: Known \_\_\_\_\_ or Total Projected \_\_\_\_\_  
 (hrs.) (hrs.)
- (5) Release Rate: Monitored \_\_\_\_\_ Ci/sec or Calculated \_\_\_\_\_ Ci/sec
- (6) Release Elevation: Ground Level; Elevated

Section B - Meteorology - (N/A)

This information is: A) New Information B) Unchanged

- (1) Wind: Velocity \_\_\_\_\_ mph  
 Direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
 (degrees) (A-R)
- (2) Stability Class: A B C D E F G
- (3) Precipitation: None; Rain; Sleet; Snow; Hail

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INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Section C - Offsite Radiological Dose Consequences - (N/A)

This is: A) New Information B) Unchanged

(1) Projected Whole Body Dose At:	<u>Dose Rate</u>	<u>Projected Duration</u>	<u>Projected Dose</u>
(A) Site Boundary	_____ mR/hr	_____	_____ mRem
(B) 2 Miles	_____ mR/hr	_____	_____ mRem
(C) 5 Miles	_____ mR/hr	_____	_____ mRem
(D) 10 Miles	_____ mR/hr	_____	_____ mRem
(2) <u>Projected Thyroid Dose Commitment At:</u>		<u>Projected Dose</u>	
(A) Site Boundary		_____ mRem	
(B) 2 Miles		_____ mRem	
(C) 5 Miles		_____ mRem	
(D) 10 Miles		_____ mRem	
(3) Affected Sectors	_____		

Section D - Emergency Response Considerations - (N/A)

This information is: A) New Information B) Unchanged

- (1) Recommended Action: None, Other \_\_\_\_\_
- (2) License Emergency Actions Underway: None, Other \_\_\_\_\_
- (3) Request for Offsite Support: None, Other \_\_\_\_\_
- (4) Prognosis for Worsening or Termination of Event Based on Plant Information: None, Other \_\_\_\_\_
- (5) Other Comments: None, Other \_\_\_\_\_



Volume 10  
Section 01

10-S-01-5  
Revision 2  
Date: 4/27/82

EMERGENCY PLAN PROCEDURE

GENERAL EMERGENCY

SAFETY RELATED

Prepared: CS Hawley RR Wanda  
Reviewed: Lo Stewart Paul Johnson Clinton Hayes  
            Asst. Plt. Manager      Nuclear Support Mgr.      Plt. Qual. Supt.  
PSRC: Paul Johnson 4/24/82  
Approved: C. M. G. 4/27/82  
            Plant Manager

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	
2	

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## 1.0 PURPOSE

1.1 To provide for proper actions and notifications to adequately respond to events or conditions classified in accordance with Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan, as a General Emergency.

## 2.0 RESPONSIBILITIES

2.1 The Shift Superintendent, acting as the interim Emergency Director, shall initiate this procedure and implement the required emergency actions until relieved by the On-Call Manager.

## 3.0 REFERENCES

3.1 GGNS Emergency Plan

## 4.0 ATTACHMENTS

4.1 Attachment I - Guidelines for Reclassification of the Emergency

4.2 Attachment II - Initial and Follow-up Notification Form

## 5.0 DEFINITIONS

5.1 General Emergency - The occurrence of an event or events which involve actual or imminent substantial core degradation or melting with potential loss of containment integrity and subsequent releases of large amounts of radioactive material offsite, therefore, if not already accomplished, the plant will activate the Technical Support Center, the Operational Support Center, the Emergency Operations Facility and the Site Access Point. Either plant or site evacuation may become necessary. Assistance from off-site support agencies will probably be necessary. Protective actions for the near-site public will probably be necessary.

## 6.0 DETAILS

6.1 Initial Emergency Actions (Emergency Director)

6.1.1 Announce the nature and location of the emergency using the PA system to the entire site.

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- 6.1.2 If the General Emergency affects any manned area of the plant, evacuate the affected areas to protect plant personnel, if necessary in accordance with Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel.
- 6.1.3 Implement plant operating procedures, as required, to place the affected unit in a safe condition.
- 6.1.4 Designate an individual as Communicator to perform proper notifications.
- 6.1.5 Designate shift personnel to perform emergency corrective and assessment actions.
- 6.1.6 Activate the following in accordance with Emergency Plan Procedure 10-S-01-7, Activation of Emergency Facilities:
  - a. Technical Support Center (TSC)
  - b. Operational Support Center (OSC)
  - c. Emergency Operations Facility (EOF)
  - d. Site Access Point (SAP)
- 6.1.7 Initiate any of the following Emergency Plan Procedures, as required, through the Operational Support Center Coordinator:
  - a. 10-S-01-18, Personnel Search and Rescue
  - b. 10-S-01-8, Fire
  - c. 10-S-01-10, Natural Occurrences
  - d. 10-S-01-19, Personnel Injury

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- e. 10-S-01-17, Emergency Personnel Dosimetry Issue

NOTE

This procedure must be initiated.

- f. 10-S-01-21, Evacuating Personnel and Vehicle Contamination Control
  - g. 10-S-01-9, Release of Toxic Material
- 6.1.8 Initiate the following Emergency Plan Procedures, as required, through the Security Coordinator:
- a. 10-S-01-16, Personnel Accountability
  - b. 10-S-01-11, Evacuation of Onsite Personnel

6.2 Notifications

- 6.2.1 The Emergency Director is to complete the Initial Notification or Follow-up Notification Form, similar to Attachment II.

NOTE

Initial and Follow-up Notification Forms are available in the emergency facilities and from Health Physics

- 6.2.2 The Emergency Director is to implement Emergency Plan Procedure 10-S-01-6, Notification of Offsite Agencies and Plant On-Call Emergency Personnel.
- 6.2.3 The Emergency Director is to complete the Follow-up Notification Form as information is available and instruct the Communicator to notify offsite agencies as necessary. (Once the EOF is manned, the Offsite Emergency Coordinator will assume this responsibility).

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### 6.3 Follow-up Actions

- 6.3.1 Initiate the Emergency Director's Log and record the following types of information, as appropriate, in it throughout the course of the emergency:
- a. Time, shift, date the emergency is declared.
  - b. Names of personnel assuming key positions in the emergency organization, if applicable.
  - c. Plant status at the time of the declaration of the emergency.
  - d. Initial notification of offsite agencies.
  - e. Major steps taken during the emergency (i.e., alarms sounded, procedures implemented, major equipment status changes, etc.)
  - f. Important data received (i.e., radiation survey results, major plant parameters pertaining to the emergency, etc.).
  - g. Recommendations given to or received from offsite agencies, if applicable.
  - h. Final notifications of offsite agencies upon close-out of the emergency.
- 6.3.2 Initiate any of the following Emergency Plan Procedures, as required, through the Radiation Protection Manager:
- a. 10-S-01-12, Offsite Dose Calculations
  - b. 10-S-01-13, Onsite Radiological Monitoring

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- c. 10-S-01-14, Offsite Radiological Monitoring
- d. 10-S-01-15, Site Access Point
- e. 10-S-01-20, Administration of Thyroid Blocking Agents

6.3.3 Continually assess the condition of the General Emergency in order to determine if it may be necessary to reclassify the emergency. Use the guidelines provided in Attachment I.

NOTE

The Emergency Director should consult with state and local emergency response organizations prior to downgrading or terminating the emergency classification.

- 6.3.4 Initiate Emergency Plan Procedure 10-S-01-22, Reentry and Recovery, (EPP-22), if extended actions must be performed to return the plant to its normal operating condition or if reentry is necessary into potential radiation, contamination, airborne, or hazardous environment areas caused by the emergency, and the following recovery phase criteria have been met:
- a. Radiation levels in all in-plant areas are stable or are decreasing with time.
  - b. Releases of radioactive material to the environment from the plant are under control or have ceased.
  - c. Any fire or similar condition is controlled or has ceased.
- 6.3.5 Close out or recommend reduction of the General Emergency by briefing offsite authorities at the EOF and by phone followed by a written summary within eight hours.

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Attachment I	Page 1 of 3

GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

PURPOSE: To establish general guidelines to be followed should changing plant conditions warrant reclassification of an emergency condition.

I. Upgrade Guidelines

- Should plant conditions appear to worsen, refer to EPP 10-S-01-1, "Activation of Emergency Plan, to determine reclassification.

II. Downgrade/Termination Guidelines

A. General

1. Conditions which caused event have been terminated.
2. Circumstances which have arisen from the event are under control and the results of any and all pertinent data are evaluated.
3. All probability of reoccurrence of an event are removed, isolated or under control.

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fires	Removal/separation of any element of fire triangle.
Spill	Tanks, pipes, valves, any other problem sources are empty, isolated and out of service.

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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Airborne	Source identified and isolated and/or contained. Area controlled.
Explosion	Existing and potential hazards removed, destroyed and/or isolated.
Abnormal Effluent	Liquid discharge is terminated, tank re-sampled, and statistics verified. Public exposure to offsite radioactive material is reduced or eliminated.  Airborne - Source identified. Quantitative and qualitative analysis complete. Release is terminated and its cause is under complete control. All on and offsite monitoring data is evaluated. Public exposure to offsite radioactive material is reduced or eliminated.
Control Room Evacuation	Plant in normal emergency shutdown from remote stations. Cause of evacuation identified and under control. No abnormal radiological conditions exist.
Plant Shutdown Functions (not available or failed)	Unit is shut down by normal or emergency means. Unit is in cold shutdown and there is no potential for criticality in the foreseeable future.



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GUIDELINES FOR RECLASSIFICATION OF THE EMERGENCY

II. Downgrade/Termination Guidelines

B. Specific Examples

CATEGORY	DOWNGRADE/TERMINATION GUIDELINES
Fuel Handling Accident - New or Spent Fuel Damage, Channeled or Un- channeled	Fuel elements, segments, pellets not in a critical configuration. Airborne activity has been evaluated and accountability of components complete.
Water Loss - LOCA Abnormal Primary Coolant Leak	Source of water loss is defined. Ability to restore or maintain water level adequate for proper shielding.
Earthquake or Other Natural Disaster	The plant has been returned to a safe condition. Threat of after-shock has passed and any damage has been evaluated as to risk, if any.
Security Threat	Threat to site is terminated. Probability of reoccurrence has been removed, with the concurrence of Security Supervisor and state, local and federal officials.



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INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Message No. \_\_\_\_\_  
 Date \_\_\_\_\_  
 Time \_\_\_\_\_

This is \_\_\_\_\_ with \_\_\_\_\_ Telephone No. \_\_\_\_\_  
 (Name) (Site)

Events are such that a/an: Unusual Event Site Area Emergency  
 Alert General Emergency

was declared at \_\_\_\_\_ hrs.

This classification is (Escalated, De-escalated, Unchanged, Terminated) from the last report.

Reason for reclassification: \_\_\_\_\_

The following information applies:

Section A - Radiological Release Information - (N/A) [Circle for Unusual Event]

NOTE: If N/A, skip to Section D.

This information is: A) New Information B) Unchanged

- (1) Type of Radiological Release: Liquid; Gaseous; Other \_\_\_\_\_
- (2) Initial Time of Release \_\_\_\_\_ hrs.
- (3) Release Terminated: No, Yes Time Terminated \_\_\_\_\_ hrs.
- (4) Duration of Release: Known \_\_\_\_\_ or Total Projected \_\_\_\_\_  
 (hrs.) (hrs.)
- (5) Release Rate: Monitored \_\_\_\_\_ Ci/sec or Calculated \_\_\_\_\_ Ci/sec
- (6) Release Elevation: Ground Level; Elevated

Section B - Meteorology - (N/A)

This information is: A) New Information B) Unchanged

- (1) Wind: Velocity \_\_\_\_\_ mph  
 Direction from \_\_\_\_\_ into sector(s) \_\_\_\_\_  
 (degrees) (A-R)
- (2) Stability Class: A B C D E F G
- (3) Precipitation: None; Rain; Sleet; Snow; Hail

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INITIAL AND FOLLOW-UP NOTIFICATION FORM

FOLLOW-UP NOTIFICATION FORM

Section C - Offsite Radiological Dose Consequences - (N/A)

This is: A) New Information B) Unchanged

- |                                   |                  |                           |                       |
|-----------------------------------|------------------|---------------------------|-----------------------|
| (1) Projected Whole Body Dose At: | <u>Dose Rate</u> | <u>Projected Duration</u> | <u>Projected Dose</u> |
| (A) Site Boundary                 | _____ mR/hr      | _____                     | _____ mRem            |
| (B) 2 Miles                       | _____ mR/hr      | _____                     | _____ mRem            |
| (C) 5 Miles                       | _____ mR/hr      | _____                     | _____ mRem            |
| (D) 10 Miles                      | _____ mR/hr      | _____                     | _____ mRem            |
- 
- |  |                       |
|--|-----------------------|
| (2) <u>Projected Thyroid Dose Commitment At:</u> | <u>Projected Dose</u> |
| (A) Site Boundary                                | _____ mRem            |
| (B) 2 Miles                                      | _____ mRem            |
| (C) 5 Miles                                      | _____ mRem            |
| (D) 10 Miles                                     | _____ mRem            |
- 
- (3) Affected Sectors \_\_\_\_\_

Section D - Emergency Response Considerations - (N/A)

This information is: A) New Information B) Unchanged

- (1) Recommended Action: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (2) License Emergency Actions Underway: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (3) Request for Offsite Support: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (4) Prognosis for Worsening or Termination of Event Based on Plant Information: None, Other \_\_\_\_\_
- \_\_\_\_\_
- (5) Other Comments: None, Other \_\_\_\_\_
- \_\_\_\_\_

Volume 10

10-S-01-6

Section 01

Revision 4

Date: 7-20-82

EMERGENCY PLAN PROCEDURE  
NOTIFICATION OF OFFSITE AGENCIES AND  
PLANT ON-CALL EMERGENCY PERSONNEL  
SAFETY RELATED

Prepared: CEM [Signature] RR Woods 7-13-82  
Reviewed: [Signature] [Signature] [Signature]  
Asst. Plt. Manager Nuclear Support Mgr. Plt. Quality Supt.  
PSRC: [Signature]  
Approved: [Signature]  
Plant Manager

List of Effective Pages:

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	1
2	None
3	None
4	None

Title: Notification of Offsite Agencies and Plant On-Call Emergency Personnel	No.: 10-S-01-6	Revision: 4	Page: 1
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## 1.0 PURPOSE

- 1.1 The purpose of this procedure is to 1) establish the notification responsibilities and sequence for designated plant supervisory personnel, 2) provide notification to plant personnel and the Corporate Office, 3) provide notification of offsite organizations and agencies, and 4) augment plant human resources as necessary during plant emergency conditions.

## 2.0 RESPONSIBILITIES

- 2.1 The Shift Superintendent, acting as the interim Emergency Director, is responsible for implementing this procedure until he is relieved.
- 2.2 The Emergency Director is responsible for maintaining the Emergency Director's Log.
- 2.3 The Communicator is responsible for coordinating all required communications.
- 2.4 The following on-call and secondary personnel are responsible for implementing the applicable sections of this procedure to provide proper notification of plant and corporate personnel:
- 2.4.1 On-Call Manager and Secondary Supervisor
  - 2.4.2 On-Call Operations Supervisor and Secondary Operations Supervisor
  - 2.4.3 On-Call Health Physicist and Secondary Health Physicist
  - 2.4.4 On-Call Technical Support Engineer and Secondary Technical Support Engineer
  - 2.4.5 On-Call Maintenance Supervisor and Secondary Maintenance Supervisor.
- 2.5 It is the responsibility of the Site Emergency Planning Coordinator to ensure an updated On-Call Personnel List is available to the Control Room at all times. This list will be reviewed and updated quarterly.

Title: Notification of Offsite Agencies and Plant On-Call Emergency Personnel	No.: 10-S-01-6	Revision: 4	Page: 2
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- 2.6 It is the responsibility of the on-call personnel to be within reach of a telephone and to have an updated On-Call Personnel List and a telephone list of their respective section/department supervisory personnel to be contacted in an emergency with them at all times. They should also be equipped with personal pagers (beepers).
- 2.7 It is the responsibility of all supervisory personnel to have a telephone list of their respective section personnel in the event they are assigned to a secondary position.
- 2.8 It is the responsibility of the affected Section Superintendent to provide an up-to-date on-call list for his section at least one week before the quarterly "on-call" schedule begins to the Site Emergency Planning Coordinator.

### 3.0 REFERENCES

None

### 4.0 ATTACHMENTS

- 4.1 Attachment I - Notification Flow Chart
- 4.2 Attachment II - Initial Notification Checklist

### 5.0 DEFINITIONS

- 5.1 On-Call Manager - Plant Manager or designated alternate.
- 5.2 On-Call Personnel - Supervisory personnel assigned to this position must be within reach of a telephone. They should also be equipped with personal pagers (beepers).
- 5.3 Secondary Personnel - Personnel assigned to this position at the time of need, by On-Call Personnel, who are to notify and instruct the necessary emergency personnel in their staffs.

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## 6.0 DETAILS

### 6.1 Notification of Offsite Agencies

- 6.1.1 The Shift Supervisor will contact the Shift Superintendent and discuss plant conditions with him.
- 6.1.2 The Shift Superintendent will initiate the appropriate Emergency Event Report Form and give it to the Control Room Communicator.
- 6.1.3 The Shift Superintendent will contact the On-Call Manager as specified in the On-Call Personnel List.
- 6.1.4 The Control Room Communicator will make notifications using the Initial Notification Checklist similar to (Attachment II). The communicator is responsible for prompt notification of the following:
  - a. State and local agencies must be notified within 15 minutes of the declaration of an emergency. The Operational Hot Line (OHL) is used for the initial notification and periodic updates to the the state and local agencies.
  - b. The Nuclear Regulatory Commission must be notified within one hour of the declaration of an emergency. The Emergency Notification System (ENS) is used for the initial notification and must be maintained open for the duration of the emergency.
- 6.1.5 To activate the OHL for initial notification, perform the following:
  - a. Pick up receiver.
  - b. Depress white button on side of instrument for at least 5 seconds to ring agencies.
  - c. Depress bar in receiver to talk.
  - d. As agencies begin to answer, announce, "This is Grand Gulf Nuclear Station, stand by for roll call".



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- e. Wait 30-60 seconds to allow agencies to respond.
  - f. Begin roll call. Announce, "This is Grand Gulf Nuclear Station. Please acknowledge when your station is called."
  - g. Perform roll call, one row at a time, in accordance with Attachment II.
  - h. Slowly read message provided on Initial Notification Form (HP-1013) (similar to Attachment II). Remember the listener is writing down what you are reading.
  - i. Conduct a sign-off roll call. Announce, "Please acknowledge receipt of this message as your station is called." Check off responding agencies in the block provided. Signal the end of the transmission by saying "Grand Gulf out".
  - j. At least one of the agencies in each row of Attachment II must be notified. If at least one does not answer, then attempt to contact the Primary Notification Point by telephone. If there is no answer, then attempt to contact the Secondary Notification Point by telephone.
  - k. If the telephone systems do not work, then the local agencies (Claiborne County Sheriff, Tensas Parish Sheriff) can be notified by UHF radio. The Security Department must activate the tone receiver to the locals and then communication can be established. Request the local officials to notify the state agencies.
- 6.1.6 To activate the Emergency Notification System, perform the following:
- a. Pick up receiver.
  - b. The inspector on duty should answer within 10 seconds.
  - c. If there is no answer, hang up.

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CAUTION

After you hang up the receiver, do not attempt to activate the ENS for at least 1 minute. Doing so may cause the system to lock in; thus preventing the use of the equipment.

- d. After 1 minute, try to activate the ENS again.
  - e. If there is no answer, then call the NRC by telephone.
- 6.1.7 Notify the NRC Resident Inspector by telephone for all emergencies.
- 6.1.8 Verification call backs may be received from the Mississippi State Board of Health and the Louisiana Nuclear Energy Division.
- 6.1.9 If the Technical Support Center is manned, the Control Room Communicator turns over to the Technical Support Center Communicator the responsibility for communications/notification to offsite agencies.
- 6.1.10 If the Emergency Operations Facility is manned, the Offsite Emergency Coordinator will assume the responsibility for providing followup information to the offsite agencies.
- 6.2 Notification of Plant Staff Personnel
- 6.2.1 The Shift Superintendent will contact the On-Call Manager specified in the On-Call Personnel List maintained in the Control Room. The Shift Superintendent and the On-Call Manager should discuss conditions at the plant and the needs for additional personnel.
  - 6.2.2 The On-Call Manager then calls another supervisor and informs him of plant conditions, the other on-call personnel he is to contact, and the necessary emergency personnel requirements. This supervisor is assigned as the Secondary Supervisor. The On-Call

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Manager is now free to report to the plant to assume the Emergency Director position.

6.2.3 The Secondary Supervisor then makes the necessary calls to the on-call personnel. The following personnel are to be called and instructed of plant conditions and manpower requirements as necessary:

- a. Offsite Emergency Coordinator
- b. On-Call Operations Supervisor
- c. On-Call Health Physics Supervisor
- d. On-Call Maintenance Supervisor
- e. On-Call Technical Support Engineer
- f. On-Call Public Relations Representative

The Secondary Supervisor is now free to report to the plant if needed.

6.2.4 The Offsite Emergency Coordinator will implement the appropriate corporate emergency procedures to provide for notification of necessary corporate personnel and offsite agencies not notified by the Communicator.

6.2.5 The other on-call personnel will contact another supervisor in their section and advise him of plant conditions. This supervisor is appointed as the Secondary Supervisor for that section.

6.2.6 The Secondary Supervisor for each section will call additional personnel from their section.

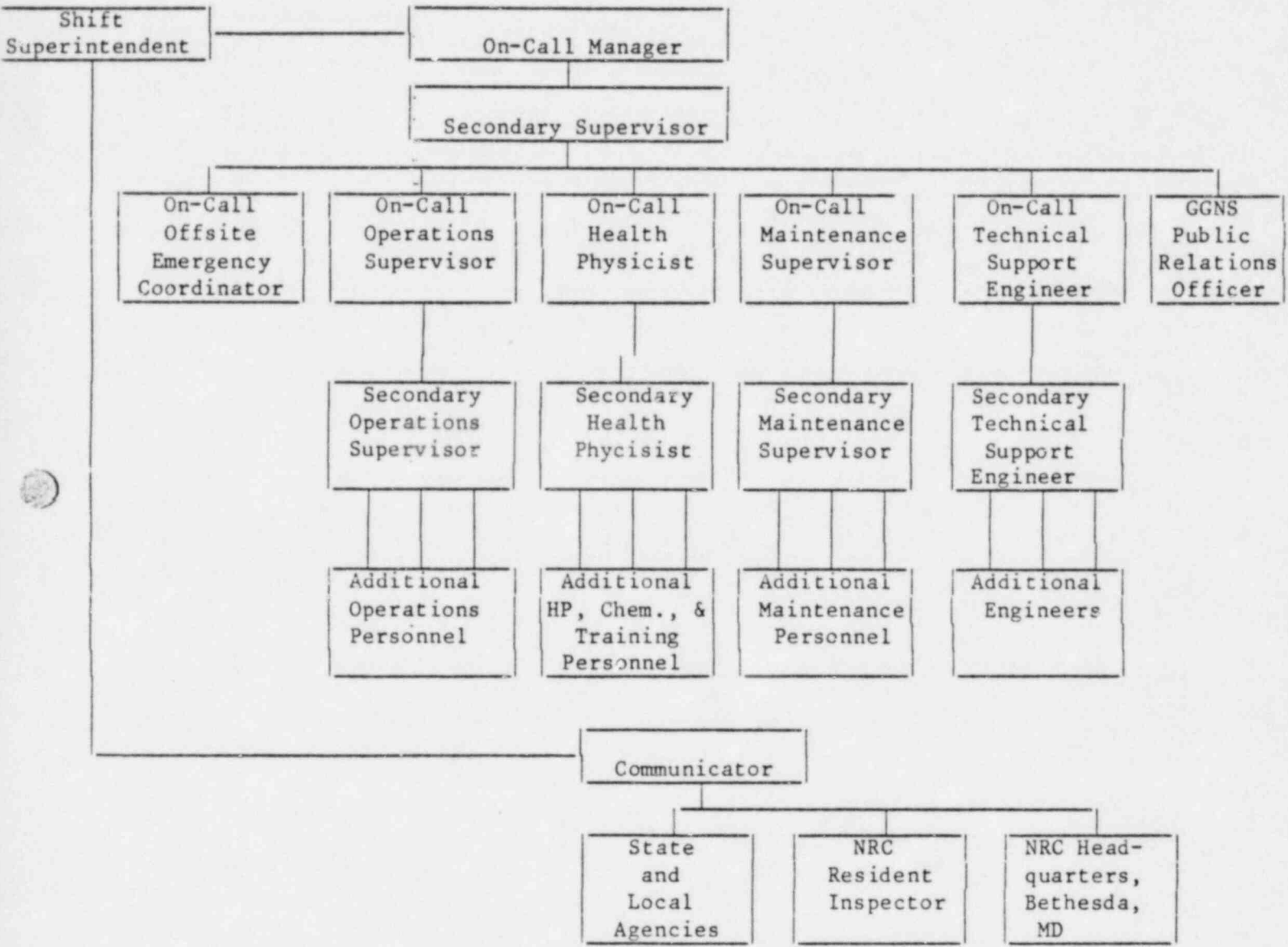
6.2.7 In the event an on-call person cannot be reached by telephone, the Control Room Communicator has the capability to page them using his emergency pager. Assigned pager numbers are listed in the On-Call Personnel List. The Secondary Supervisor may contact any

Title: Notification of Offsite Agencies and Plant On-Call Emergency Personnel	No.: 10-S-01-6	Revision: 4	Page: 7
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individual in the respective department if the on-call person cannot be reached. The pager system should be used only if absolutely necessary to minimize the number of incoming calls to the Control Room. Instructions for use of the pager system are located in the On-Call Personnel List.

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NOTIFICATION FLOW CHART



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INITIAL NOTIFICATION

INITIAL NOTIFICATION CHECKLIST

Message No. \_\_\_\_\_  
 Date \_\_\_\_\_  
 Time \_\_\_\_\_  
 Initials \_\_\_\_\_

This is \_\_\_\_\_ With Grand Gulf Nuclear Station. Phone  
 (name)

Events are such that a/an \_\_\_\_\_ was  
 (Unusual Event, Alert, Site or General Emergency)  
 declared at \_\_\_\_\_  
 (time)

A brief description of the event is as follows:

The following information applies:

- (1) Release from the plant :  NO  
 YES - Gaseous, liquid, Solid (circle one).

Wind Speed \_\_\_\_\_ mph

Wind Direction from \_\_\_\_\_ into Sector \_\_\_\_\_  
 (degrees) (A-R)

- (2) Recommended Protective Actions:  NONE  
 SHELTER  
 OTHER \_\_\_\_\_

A comprehensive assessment of conditions is in progress at this time. Additional information will be provided to you as the situation develops. Please acknowledge receipt of this message as your station is called.

**NOTIFY STATE & LOCAL AGENCIES WITHIN 15 MINUTES USING THE OHL**

At least one of the agencies in each of the five rows must be notified. If the Primary Notification Point cannot be reached then notify the Secondary Point. Notification must be made by telephone if one of the agencies do not answer the OHL.

Primary Notification

Secondary Notification

- Miss Highway Patrol
- Louisiana Emergency Preparedness
- Claiborne County Sheriff's Office
- Tensas Parish Sheriff's Office
- Port Gibson Police Dept.

- Miss Emergency Management Agency
- Louisiana Nuclear Energy Division
- Claiborne County Civil Defense

**NOTIFY THE NRC WITHIN AN HOUR OF ALL EMERGENCIES USING THE ENS (RED PHONE)**

- Nuclear Regulatory Commission
- NRC Resident Inspector  
 (work)  
 (home)

Volume 10

10-S-01-7

Section 01

Revision 2

Date: 7-19-82

EMERGENCY PLAN PROCEDURE

ACTIVATION OF EMERGENCY FACILITIES

SAFETY RELATED

Prepared: C. E. Smith / R. R. W. 7/13/82

Reviewed: [Signature] / [Signature] / [Signature]  
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PSRC: [Signature] 7/15/82

Approved: [Signature] 7/16/82  
 Plant Manager

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	None
2	None

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## 1.0 PURPOSE

- 1.1 To indicate the method of activating the following GGNS Emergency Response Facilities:
  - 1.1.1 Technical Support Center (TSC)
  - 1.1.2 Operational Support Center (OSC)
  - 1.1.3 Emergency Operations Facility (EOF)
  - 1.1.4 Site Access Point (SAP)
- 1.2 To indicate duties and responsibilities of specific supervisory positions in the Onsite Emergency Organization.

## 2.0 RESPONSIBILITIES

- 2.1 The Emergency Director is responsible to direct the onsite emergency response and to activate and man the TSC, OSC, and the Site Access Point (SAP) as required by the Emergency Plan Procedures. He shall perform the following actions during the course of an emergency:
  - 2.1.1 Assess the emergency situation, especially where a real or potential hazard to offsite persons or property exists.
  - 2.1.2 Make operational decisions involving the safety of the plant and its personnel.
  - 2.1.3 Notify and recommend protective actions to authorities responsible for offsite emergency measures. (The Offsite Emergency Coordinator will assume this responsibility once the EOF is activated and manned.)

### NOTE

The Emergency Director/Offsite Emergency Coordinator cannot delegate the responsibility for recommendation of protective actions to offsite agencies.



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- 2.1.4 Implement the GGNS Emergency Plan through the use of specific Emergency Plan Procedures.
  - 2.1.5 Activate the Onsite Emergency Organization and Offsite Emergency Organization as required.
  - 2.1.6 Notify and inform the offsite support officials of pertinent facts and development.
  - 2.1.7 Request assistance from federal agencies if required. (The Offsite Emergency Coordinator will assume this responsibility once the EOF is activated and manned.)
- 2.2 The Offsite Emergency Coordinator is responsible to activate and man the EOF as required by the Emergency Plan Procedures. The Offsite Emergency Coordinator is responsible for the overall emergency response effort and will be the central figure for the Offsite Emergency Organization. He will be a focal point for official communications, and will be responsible for providing needed plant support (local, state, and federal) via the offsite organization. The Offsite Emergency Coordinator will normally be the Assistance Vice President, Nuclear Production and will be in communication with officials at the Corporate Emergency Center. He shall provide guidance to the Emergency Director as appropriate. The Emergency Director, however, will maintain overall responsibility for the operation and control of the plant. The Offsite Emergency Coordinator will be responsible for assuring continuity of technical, administrative, and material resources throughout the emergency, and for ongoing emergency communications for offsite agencies once the EOF is activated.
- 2.3 The Communicator is responsible to the Emergency Director for the operation of the communications system at the Control Room/TSC.
- 2.4 The Operations Coordinator shall report directly to the Emergency Director and shall perform the following actions during an emergency:
- 2.4.1 Coordinate all activities in the Control Room.
  - 2.4.2 Coordinate operations activities outside of the Control Room.

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- 2.4.3 Provide technical assistance to the Shift Superintendent.
- 2.5 The Technical Support Center Coordinator shall report directly to the Emergency Director and is responsible for the following during an emergency:
  - 2.5.1 Coordinating activities of the Technical Support Center personnel.
  - 2.5.2 Correlating all data provided by the Technical Support Center staff and reporting it, along with recommendations, to the Emergency Director.
- 2.6 The Technical Manager shall report directly to the Technical Support Center Coordinator and is responsible for the following during an emergency:
  - 2.6.1 The activities of the engineers and technical staff.
  - 2.6.2 Providing information concerning plant status and for developing recommendations and procedures for plant operation.
- 2.7 The Record Document Manager shall report directly to the Technical Support Center Coordinator and provide the following services during an emergency:
  - 2.7.1 Typing and reproduction
  - 2.7.2 Personnel accommodations
  - 2.7.3 Temporary office facilities and communications
  - 2.7.4 Meals
  - 2.7.5 Transportation
  - 2.7.6 Document control
- 2.8 The Radiation Protection Manager shall report directly to the Emergency Director and is responsible for the following during an emergency:

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- 2.8.1 Radiological assessments and the development of radiological plans
- 2.8.2 Keeping the Emergency Director informed of the environmental conditions
- 2.8.3 Determining emergency radiological survey requirements

A Staff Health Physicist will normally assist the Radiation Protection Manager in the Technical Support Center.

- 2.9 The Site Access Point (SAP) Coordinator reports directly to the Radiation Protection Manager. He is responsible for activating and manning the Site Access Point. He will establish appropriate radiation control measures and is responsible for control and operation of the following teams:
  - 2.9.1 Offsite Radiological Monitoring Teams
  - 2.9.2 Site Access Team

NOTE

Once the EOF is activated and manned, the Corporate Radiation Emergency Manager shall assume the responsibility for the control and operation of offsite monitoring teams.

- 2.10 The Health Physics Coordinator shall report directly to the Operation Support Center Coordinator and the Radiation Protection Manager. He will establish appropriate radiation control measures and is responsible for the forming and dispatching of onsite radiological monitoring teams.
- 2.11 The Operational Support Center Coordinator shall report directly to the Emergency Director and is responsible for the following during an emergency:
  - 2.11.1 Coordinating assessment of physical plant damage and providing maintenance support during the course of the emergency.

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2.11.2 The forming and dispatching of the following emergency teams as directed by the Emergency Director.

- a. Emergency Repair Team
- b. First Aid Team
- c. Search and Rescue Team
- d. Fire Brigade
- e. Reentry and Recovery Team

2.12 The Security Coordinator shall report directly to the Emergency Director and is responsible for the implementation of the appropriate Security Section procedures to properly respond to the emergency.

### 3.0 REFERENCES

3.1 GGNS Emergency Plan

### 4.0 ATTACHMENTS

4.1 Attachment I - Onsite Emergency Organization

### 5.0 DEFINITIONS

None

### 6.0 DETAILS

6.1 Activation of the TSC (Required for Alert, Site and General Emergencies)

6.1.1 The On-Call Manager, upon being informed of an emergency condition by the Shift Superintendent, will implement the applicable sections of Emergency Plan Procedure 10-S-01-6, Notification of Offsite Agencies and On-Call Emergency Personnel.

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6.1.2 The Shift Superintendent should appoint an individual to ensure the TSC is properly set up. For example, this individual should check the following:

- a. Lighting
- b. Telephone and communications equipment properly installed
- c. Tables and chairs properly arranged
- d. Easels and marker boards properly arranged

A floor plan is mounted in the TSC to aid in this initial set up.

6.1.3 The On-Call Manager, after receiving a proper turn-over from the Shift Superintendent in the Control Room, will go to the TSC with the following:

- a. Emergency Director's Log
- b. An appointed Communicator
- c. Communicator's Log

6.1.4 The On-Call Manager, once the Communicator in the TSC has established communications from the TSC to the Control Room, assumes the position of Emergency Director, until relieved by more senior personnel (Attachment I).

6.1.5 The Emergency Director now transfers communications from the Control Room to the TSC. The TSC is now activated.

6.1.6 The Shift Superintendent assumes the position of Operations Coordinator until properly relieved by a more senior Operations Supervisor in accordance with the Onsite Emergency Organization (Attachment I).

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6.1.7 As personnel become available (see the Onsite Emergency Organization, Attachment I), the Emergency Director should assure manning of the following positions:

- a. Technical Support Center Coordinator
- b. Radiation Protection Manager
- c. Technical Manager
- d. Record Document Manager
- e. GGNS Public Relations Representative

The above people should staff the TSC with additional personnel (engineers, managers/supervisors, office services, assistants, assistant communicators, etc.) as needed. The GGNS Public Relations Representative should be supplied with a qualified assistant to aid in the preparation of press releases.

## 6.2 Activation of OSC (Required for Alert, Site and General Emergencies)

- 6.2.1 The Emergency Director orders the activation of the OSC by use of the PA system. Once instructed by the Emergency Director to activate the OSC, the senior on-shift Maintenance Supervisor/Superintendent assumes the position of Operational Support Center Coordinator until properly relieved by a more senior supervisor in accordance with the Onsite Emergency Organization (Attachment I).
- 6.2.2 The senior on-shift Health Physicist assumes the position of the Health Physics Coordinator, until relieved by a more senior supervisor (Attachment I).
- 6.2.3 The OSC Coordinator appoints one or more OSC Communicators to man radio consoles and telephones. The OSC is now activated.
- 6.2.4 The OSC Coordinator appoints one or more individuals to muster arriving offsite emergency personnel. The offsite emergency

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personnel will normally remain in the OSC and report to the plant when:

- a. They receive permission from the TSC Coordinator, or
- b. Directed by the OSC Coordinator

6.2.5 The OSC Coordinator organizes and mans the following teams, as necessary:

- a. Emergency Repair Team - Normally consist of Operations, Health Physics, and Maintenance personnel equipped with the required equipment and tools to perform repairs. They should also have portable radios to maintain communication with the OSC.
- b. Search and Rescue Team
- c. First Aid Team
- d. Back-up Fire Brigade
- e. Onsite Monitoring Team (through the Health Physics Coordinator)
- f. Reentry and Recovery Team

Control and operation of these teams should be in accordance with the following applicable Emergency Plan Procedures:

- (1) 10-S-01-8, Fire
- (2) 10-S-01-9, Release of Toxic Materials
- (3) 10-S-01-13, Onsite Radiation Monitoring
- (4) 10-S-01-17, Emergency Personnel Dosimetry Issue
- (5) 10-S-01-18, Personnel Search and Rescue

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(6) 10-S-01-19, Personnel Injury

(7) 10-S-01-22, Re-entry and Recovery

6.2.6 The OSC Coordinator, at the discretion of the Emergency Director, should implement Emergency Plan Procedure 10-S-01-20, Administration of Thyroid Blocking Agents, if necessary.

6.3 Activation of EOF (Required for Site and General Emergencies)

6.3.1 Activation of the EOF is performed by the Offsite Emergency Coordinator in accordance with corporate emergency procedures.

6.4 Activation of the Site Access Point (SAP) (required for Site and General Emergencies)

6.4.1 The Emergency Director calls the Health Physics Lab or OSC and orders the activation of the SAP. In addition, if during normal working hours, notify the Training Section at extension 327.

6.4.2 The Health Physics Coordinator appoints a Health Physicist to control the SAP as interim SAP Coordinator (until relieved by a more Senior Health Physicist in accordance with the Onsite Emergency Organization (Attachment I).

6.4.3 The SAP Coordinator shall establish communications with the Control Room, OSC, and TSC (if activated by this time). The SAP is now activated.

6.4.4 The SAP Coordinator organizes the following teams as personnel become available:

a. Two Offsite Monitoring Teams

b. Site Access Team

Control and operation of these teams should be in accordance with the following applicable Emergency Plan Procedures:

(1) 10-S-01-12, Offsite Dose Calculations

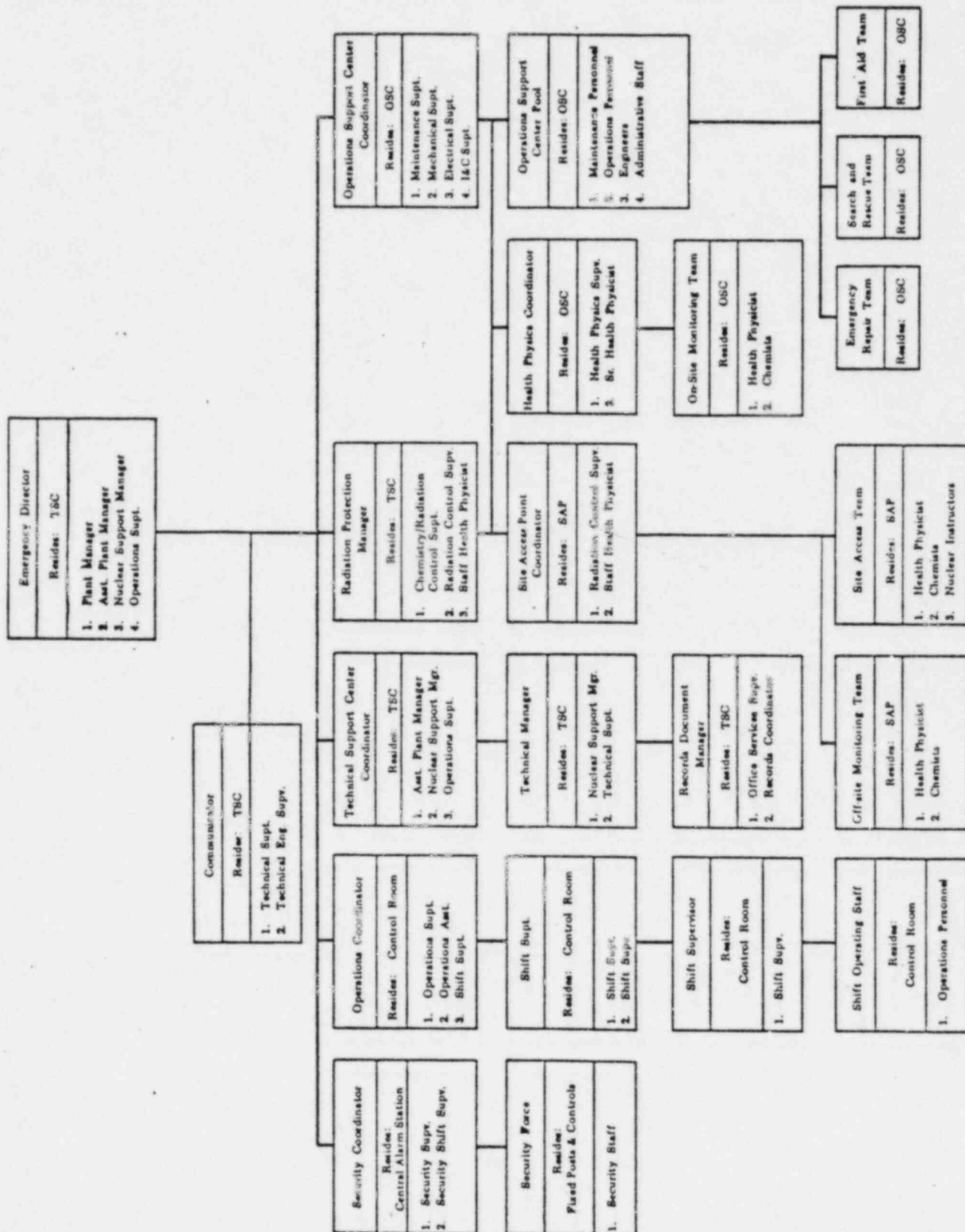


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- (2) 10-S-01-14, Offsite Radiation Monitoring
- (3) 10-S-01-17, Emergency Personnel Dosimetry Issue
- (4) 10-S-01-20, Administration of Thyroid Blocking Agents
- (5) 10-S-01-21, Evacuating Personnel and Vehicle  
Contamination Control
- (6) 10-S-01-15, Site Access Point Operations

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ONSITE EMERGENCY ORGANIZATION



PLANT OPERATIONS MANUAL

Volume 10

10-S-01-8

Section 01

Revision 2

Date: 4/27/82

EMERGENCY PLAN PROCEDURE

FIRE

SAFETY RELATED

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PSRC: Paul A. Johnson 4/24/82  
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Plant Manager

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## 1.0 PURPOSE

- 1.1 To provide for the prompt and efficient management of any fire, regardless of size or presence of radioactivity, once an emergency condition has been declared.

## 2.0 RESPONSIBILITIES

- 2.1 The Shift Superintendent is responsible for assessing the fire situation and the appropriate direction of the Fire Brigade from the Control Room. The Shift Superintendent will also determine when to declare an emergency if conditions warrant, at which time he will assume the position of the Emergency Director.
- 2.2 All employees have the responsibility to report fires to the Control Room and to adhere to the requirements in Emergency Plan Procedure 10-S-03-2, Response to Fires.
- 2.3 The Fire Brigade and backup Fire Brigade members are responsible under the direction of the Fire Brigade leaders to perform duties as necessary to protect life and property on the Grand Gulf site.

## 3.0 REFERENCES

- 3.1 Plant Administrative Procedure 01-S-10-1, Fire Protection Plan
- 3.2 Emergency Plan Procedure 10-S-03-2, Response to Fires
- 3.3 Security Section Procedure 11-S-11-2, Vehicle Control
- 3.4 Security Section Procedure 11-S-10-1, Personnel Key Card Issuance and Access Control and Authorization

## 4.0 ATTACHMENTS

None

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## 5.0 DEFINITIONS

None

## 6.0 DETAILS

- 6.1 Notification of fires in addition to the response of Fire Brigade team(s) and plant personnel shall be performed in accordance with Reference 3.2.
- 6.2 A Health Physicist must be present at the scene of the fire if there is the potential for exposures and/or contamination. His responsibility will be to assist the Fire Brigade team leader in evaluating the radiological nature of the fire. For the initial Control Room Fire Brigade response to the fire, a Radiation Worker III, with the appropriate equipment, may fulfill this role (until a Health Physicist arrives at the scene).
- 6.3 Firefighting and associated personnel may be authorized to receive emergency doses under two conditions:
  - 6.3.1 A maximum of 25 rem may be expected to be received while an individual is fulfilling emergency responsibilities. These responsibilities may consist of measures taken to protect plant safety systems or action required to save a life. The Emergency Director authorizes this emergency exposure.
  - 6.3.2 Life saving actions which may possibly result in doses in excess of 25 rem shall be voluntary in nature and should not exceed 75 rem. The Emergency Director should authorize this emergency exposure for team members volunteering to remove the injured individual.
- 6.4 All possible attempts should be made by the Fire Brigade to keep their exposure to a minimum.

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- 6.5 The Fire Brigade team leader, in consultation with the Shift Superintendent, will decide when offsite fire fighting assistance is required.
- 6.5.1 The Control Room will contact the Claiborne County Fire Department, at phone number \_\_\_\_\_ and inform them of the situation and to report to the south entrance of the site.
- 6.5.2 The Control Room will notify the Security Coordinator that outside fire fighting assistance will be arriving.
- 6.5.3 The offsite fire fighting team will be directed to the Security Island where they will receive an emergency kit which contains emergency dosimetry as specified in Emergency Plan Procedure 10-S-01-17, Emergency Personnel Dosimetry Issue. The fire fighting team will be escorted to the scene of the fire where they will interface with the site Fire Brigade(s) and be briefed on the situation and any necessary precautions in accordance with References 3.3 and 3.4.
- 6.6 Personnel not involved in the fire fighting effort will respond when directed in accordance with Emergency Plan Procedure 10-S-01-25, Onsite Personnel Response.
- 6.7 Personnel unaccounted for will be reported to the Emergency Director who will implement Emergency Plan Procedure 10-S-01-18, Personnel Search and Rescue.
- 6.8 Any injury incidents will be handled in accordance with Emergency Plan Procedure 10-S-01-19, Personnel Injury
- 6.9 Once the fire has been extinguished, Health Physics personnel will survey all fire fighting personnel and equipment and decontaminate as appropriate.

Volume 10

10-S-01-9

Section 01

Revision 0

Date: 8/14/81

EMERGENCY PLAN PROCEDURE

RELEASE OF TOXIC MATERIAL

SAFETY RELATED

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## 1.0 PURPOSE

- 1.1 To provide guidelines for protecting plant personnel in the event of a release of toxic or flammable material on site.
- 1.2 To terminate the release of toxic or flammable material on site.

## 2.0 RESPONSIBILITIES

- 2.1 The Emergency Director is responsible for implementing this procedure.
- 2.2 The Operational Support Center Coordinator is responsible for utilizing the guidelines of this procedure in the organization, control and operation of Emergency Repair Teams.
- 2.3 The Security Coordinator is responsible for personnel accountability in the event of a limited or plant evacuation.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

None

## 6.0 DETAILS

### 6.1 Initial Actions

- 6.1.1 The Emergency Director should complete all the initial actions in the following applicable Emergency Plan Procedures:
  - a. Emergency Plan Procedure 10-S-01-2, Unusual Event
  - b. Emergency Plan Procedure 10-S-01-3, Alert
  - c. Emergency Plan Procedure 10-S-01-4, Site Emergency
  - d. Emergency Plan Procedure 10-S-01-5, General Emergency



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The purpose of these initial actions is to notify personnel of the release of toxic/flammable material and the location of the release, to evacuate the affected areas, and to control or terminate the release and its associated consequences.

## 6.2 Follow-up Actions

- 6.2.1 If a limited or plant evacuation is executed, the Security Coordinator shall notify the Emergency Director of any persons not accounted for.
- 6.2.2 If necessary, the Emergency Director will instruct the Operational Support Center Coordinator to implement the following Emergency Plan Procedures:
  - a. Emergency Plan Procedure 10-S-01-18, Personnel Search and Rescue
  - b. Emergency Plan Procedure 10-S-01-19, Personnel Injury
  - c. Emergency Plan Procedure 10-S-01-8, Fire
- 6.2.3 The Emergency Director will instruct the Operational Support Center Coordinator to assemble Emergency Repair Teams, if necessary.
- 6.2.4 The Operational Support Center Coordinator should use the following guidelines in the organization, control and operation of Emergency Repair Teams:
  - a. An Emergency Repair Team will normally consist of the following members:
    - (1) Operations personnel
    - (2) Health Physics personnel
    - (3) Maintenance personnel
  - b. The Emergency Repair Team will be outfitted with the following equipment:
    - (1) Required equipment and tools to perform repairs.

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- (2) Self-Contained Breathing Apparatus (SCBA)
- (3) Portable radio to maintain constant communications with the OSC.
- (4) Cotton or full-plastic protective clothing depending upon the type of material being released.

6.2.5 The Emergency Repair Team, along with any associated personnel, may be authorized to receive emergency doses under two conditions:

- a. A maximum of 25 rem may be expected to be received while an individual is fulfilling emergency responsibilities. These responsibilities may consist of measures taken to protect plant safety systems or actions required to save a life. The Emergency Director shall authorize this emergency exposure.
- b. Life saving actions, which may possibly result in doses in excess of 25 rem, shall be voluntary in nature and should not exceed 75 rem. The Emergency Director should authorize this emergency exposure for team members volunteering to remove the injured individual.

6.2.6 Close out this procedure after the release has been terminated and there is no further danger to plant personnel.

PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-10  
Revision 2  
Date: 7-1-82

EMERGENCY PLAN PROCEDURE

NATURAL OCCURRENCES

SAFETY RELATED

Prepared: CE Luby RR Wachs 6-21-82  
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Asst. Plt. Mgr. Nuclear Support. Mgr. Plt. Quality Supt.  
PSRC: Paul A. Anderson 6/29/82  
Approved: CE Luby 6/30/82  
Plant Manager

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List of TCN's Incorporated:

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1	None
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Title: Natural Occurrences	No.: 10-S-01-10	Revision: 2	Page: 1
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## 1.0 PURPOSE

To provide instructions for initiating protective actions in the event of a Natural Occurrence (tornado, hurricane, flood, or earthquake) that may affect plant structures or have an impact on normal plant operations.

## 2.0 RESPONSIBILITIES

- 2.1 It is the responsibility of the Shift Superintendent to make decisions concerning the safety of the plant if the weather tends to become threatening or unstable.
- 2.2 It is the responsibility of the Shift Superintendent to act in the role of Emergency Director as necessary until the appropriate person relieves him.
- 2.3 The Emergency Director assures the implementation of this procedure.

## 3.0 REFERENCES

- 3.1 GGNS Emergency Plan
- 3.2 Off-Normal Event Procedure 05-1-02-VI-1, Flooding
- 3.3 Off-Normal Event Procedure 05-1-02-VI-2, Hurricanes, Tornadoes and Severe Weather
- 3.4 Off-Normal Event Procedure 05-1-02-VI-3, Earthquake

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

### 5.1 Flood

- 5.1.1 River water reaching the 100 feet elevation is an Unusual Event.

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5.1.2 River water entering the protected area of the site is classified as an Alert.

5.2 Facility - The power block and switchyard.

## 6.0 DETAILS

### 6.1 Tornadoes

- 6.1.1 Normally, the Jackson Load Dispatcher would notify the Control Room of warnings and unstable or threatening weather conditions; but as a backup, there will be a weather radio monitored by Security to keep the Shift Superintendent informed so actions can be taken to secure the plant as necessary.
- 6.1.2 If a tornado warning is issued for the plant area, the Shift Superintendent should initiate Off-Normal Event Procedure 05-1-02-VI-2.
- 6.1.3 Security must notify the Control Room if a tornado warning is in effect for the area and they must notify the Control Room immediately if a tornado is observed on site.
- 6.1.4 If a tornado is observed on site, an Unusual Event would be declared.
- 6.1.5 The Emergency Director will refer to Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan, (EPP-1) and then he should implement any other procedures as applicable for this Unusual Event.
- 6.1.6 If a tornado strikes the facility and the possibility exists that any damage done could be vital to the control of the plant, then the accident classification would escalate to an Alert.
- 6.1.7 If damage to plant structures cause a loss of systems required to protect the public, the Emergency Director would implement Emergency Plan Procedure 10-S-01-4, Site Emergency, and verify that proper operating instructions are implemented to shut down the reactor.

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## 6.2 Hurricanes

- 6.2.1 When the Control Room is notified that a hurricane warning is in effect for the area, the Shift Superintendent should initiate Emergency Plan Procedure 10-S-01-2, Unusual Event, (EPP-2), and Off-Normal Event Procedure 05-1-02-VI-2.
- 6.2.2 As weather conditions increase or decrease in severity, the Emergency Director can determine which accident classification to declare by referring to Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan, (EPP-1).
- a. Sustained windspeed of 73 mph at the site is an emergency action level for an Alert.
  - b. Sustained windspeeds greater than 90 mph at the site is cause to identify a Site Emergency.

## 6.3 Floods

- 6.3.1 Flooding observed onsite may suggest the need for some precautionary measures to be taken in accordance with Off-Normal Event Procedure 05-1-02-VI-1.
- 6.3.2 When river water reaches the 100' level, the Emergency Director should declare an Unusual Event.
- 6.3.3 An Alert would be declared when the river water reaches the protected fenced area of the site.
- 6.3.4 Standing water, due to precipitation, will be prevented from entering the plant by placing sand bags in front of entrances where standing water is within one inch of the entrance level.

## 6.4 Earthquakes

- 6.4.1 Activation of the seismic triggers causes an audible and visual annunciation in the Control Room that an earthquake has occurred.
- 6.4.2 The Emergency Director should implement Emergency Plan Procedure 10-S-01-2, Unusual Event, (EPP-2) after the acceleration alarm goes off in the Control Room.

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- 6.4.3 Initiate Off-Normal Event Procedure 05-1-02-VI-3 as necessary.
- 6.4.4 If the Containment or Drywell Operating Basis Earthquake Alarm goes off, Emergency Plan Procedure 10-S-01-3, Alert, (EPP-3) should be implemented.
- a. If damage is found which could be vital to the control of the plant, initiate proper operating instructions to shut down the reactor.
- 6.4.5 If the Containment or Drywell Safe Shutdown Earthquake Alarm goes off:
- a. Initiate Off-Normal Event Procedure 05-1-02-VI-3, if not already initiated.
  - b. If damage is found which shows degradation to the plant structure, implement Emergency Plan Procedure 10-S-01-4, Site Emergency, (EPP-4) and verify that proper operating instructions are implemented to shut down the reactor.

PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-11  
Revision 2  
Date: 7-13-82

EMERGENCY PLAN PROCEDURE  
EVACUATION OF ONSITE PERSONNEL  
SAFETY RELATED

Prepared: *CRW* *RRW* *6-21-82*  
Reviewed: *Paul Anderson* *D. D. ...* *Carroll ...*  
          Asst. Plt. Mgr.           Nuclear Support. Mgr.           Plt. Quality Supt.  
PSRC: *Paul Anderson* *7/9/82*  
Approved: *CRW* *7/12/82*  
          Plant Manager

List of Effective Pages:

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	None
2	None



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## 1.0 PURPOSE

1.1 This procedure describes the steps to be taken for the two following types of evacuations:

1.1.1 Limited Evacuation

1.1.2 Site Evacuation

1.2 This procedure is to be used by the Emergency Director. Onsite personnel should refer to Emergency Plan Procedure 10-S-01-25, Onsite Personnel Response, for evacuation instructions.

## 2.0 RESPONSIBILITIES

2.1 It is the responsibility of the Emergency Director to determine whether or not evacuation is necessary and the extent of the evacuation after the emergency condition has been classified. The Emergency Director is responsible for implementing this procedure when emergency conditions warrant to protect onsite personnel.

2.2 The Shift Security Supervisor is responsible for the appropriate personnel accountability and traffic control once an evacuation has been initiated. If a site evacuation has been ordered, the Shift Security Supervisor is also responsible for ensuring that all GGNS MP&L property is evacuated (i.e., Gin and Hamilton Lake areas, Bechtel office buildings, etc.), by performing a random search of buildings to ensure that personnel have evacuated.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

4.1 Attachment I - Onsite Personnel Response Flowchart

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## 5.0 DEFINITIONS

- 5.1 Emergency Personnel - Personnel qualified as Radiation Worker II or III (or equivalent as determined by the Emergency Director). In addition, these personnel should be qualified to wear respiratory equipment.
- 5.2 Non-Emergency Personnel - Plant staff personnel not qualified Radiation Worker II or III, visitors, contractors, vendors, construction workers, etc.
- 5.3 Site Evacuation - As a minimum, the following areas will be evacuated:
- 5.3.1 Plant (except Control Room and TSC)
  - 5.3.2 Within the fenced, protected area of the site (except OSC, CAS, and Security Island)
  - 5.3.3 GGNS MP&L property (i.e., Gin and Hamilton Lake areas, Bechtel yards and office buildings, etc.)
  - 5.3.4 Administration Building
  - 5.3.5 Unit 2 construction site
- 5.4 Limited Evacuation - This type covers a broad range of evacuations, from the evacuation of a small area of the plant to almost a total site evacuation.
- 5.5 SAP - Site Access Point.

## 6.0 DETAILS

- 6.1 Limited Evacuation
- 6.1.1 As general guidelines, a limited evacuation will be considered if any of the following conditions occur in an area:
    - a. Fire or toxic gas release threatening health and safety in the area

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- b. Area air or ambient conditions such as heat, steam or smoke, airborne radioactivity concentrations, or radiological dose rate preclude habitation in that area
- 6.1.2 In response to a condition leading to or potentially requiring a limited evacuation, the Emergency Director will determine the area to be evacuated.
- 6.1.3 The Emergency Director or Communicator will make an announcement similar to the following on the PA system (to the entire site):
- "ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL. CONDITIONS IN THE (area to be evacuated) WARRANT A LIMITED EVACUATION OF THAT AREA. ALL PERSONNEL IN THE (area to be evacuated) SHALL IMMEDIATELY REPORT TO THE (HP Lab or other accountability area) AND AWAIT FURTHER INSTRUCTIONS."
- 6.1.4 If necessary, announce a proper evacuation route from the affected area to the Health Physics Lab (or other accountability area).
- 6.1.5 Instruct the Shift Security Supervisor to implement the appropriate accountability measures.
- 6.1.6 Use the PA system to give frequent information updates on the status of the emergency. Work area supervisors are to have as many personnel report to the OSC as appropriate. Some examples of announcements that may be made are as follows:
- a. ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL. (Conditions in the affected area) EXISTS IN THE (area evacuated).
- b. NON-EMERGENCY PERSONNEL IN THE PLANT (continue work, report to HP Lab or SAP, etc.)
- c. NON-EMERGENCY PERSONNEL NOT IN THE PLANT (continue work, stay clear of the area, report to SAP, etc.)

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d. UNIT 2 CONSTRUCTION WORKERS (continue work, stay clear of the area, etc.)

- 6.1.7 Contact the Health Physics Lab and give instructions concerning the final destination point of the evacuated personnel (i.e., stand by on 93' level, report to the Administration Building, etc.).
- 6.1.8 Continuously assess the emergency condition to determine if further area evacuations are necessary. If they are, repeat all of the previous steps.
- 6.1.9 Work may resume in the evacuated area(s) when it has been determined by the Emergency Director that no significant hazard to personnel remains.

6.2 Site Evacuation

- 6.2.1 As general guidelines, a site evacuation will be considered if any of the following conditions occur in the plant:
- a. Fire or toxic gas release threatening health and safety throughout the plant
  - b. Air or ambient conditions such as heat, steam or smoke, airborne radioactivity concentrations, or radiological dose rate preclude habitation throughout the plant
- 6.2.2 The Emergency Director or Communicator, once the necessity of a site evacuation has been determined, will sound the site evacuation alarm and make an announcement similar to the following on the PA system (to the entire site):

"ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL. THERE ARE CONDITIONS AT THE PLANT THAT WARRANT A SITE EVACUATION. ALL NON-EMERGENCY PERSONNEL PROCEED IMMEDIATELY TO AN AVAILABLE VEHICLE. ALL EMERGENCY PERSONNEL REPORT TO THE OSC."

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6.2.3 If necessary, announce proper evacuation routes from the plant.

NOTE

If conditions warrant, (for example, no radiological release in progress, or it is important to get non-emergency personnel away from the general vicinity of the plant rapidly) it is advantageous to send people directly home or to some other designated area (instead of the SAP).

6.2.4 SOUND THE SITE EVACUATION ALARM AND MAKE THE ANNOUNCEMENT(S) ONCE MORE.

6.2.5 Instruct the Shift Security Supervisor to implement the appropriate accountability measures.

6.2.6 Personnel leaving the site should leave in their own vehicle or ride in any available evacuating vehicle. |

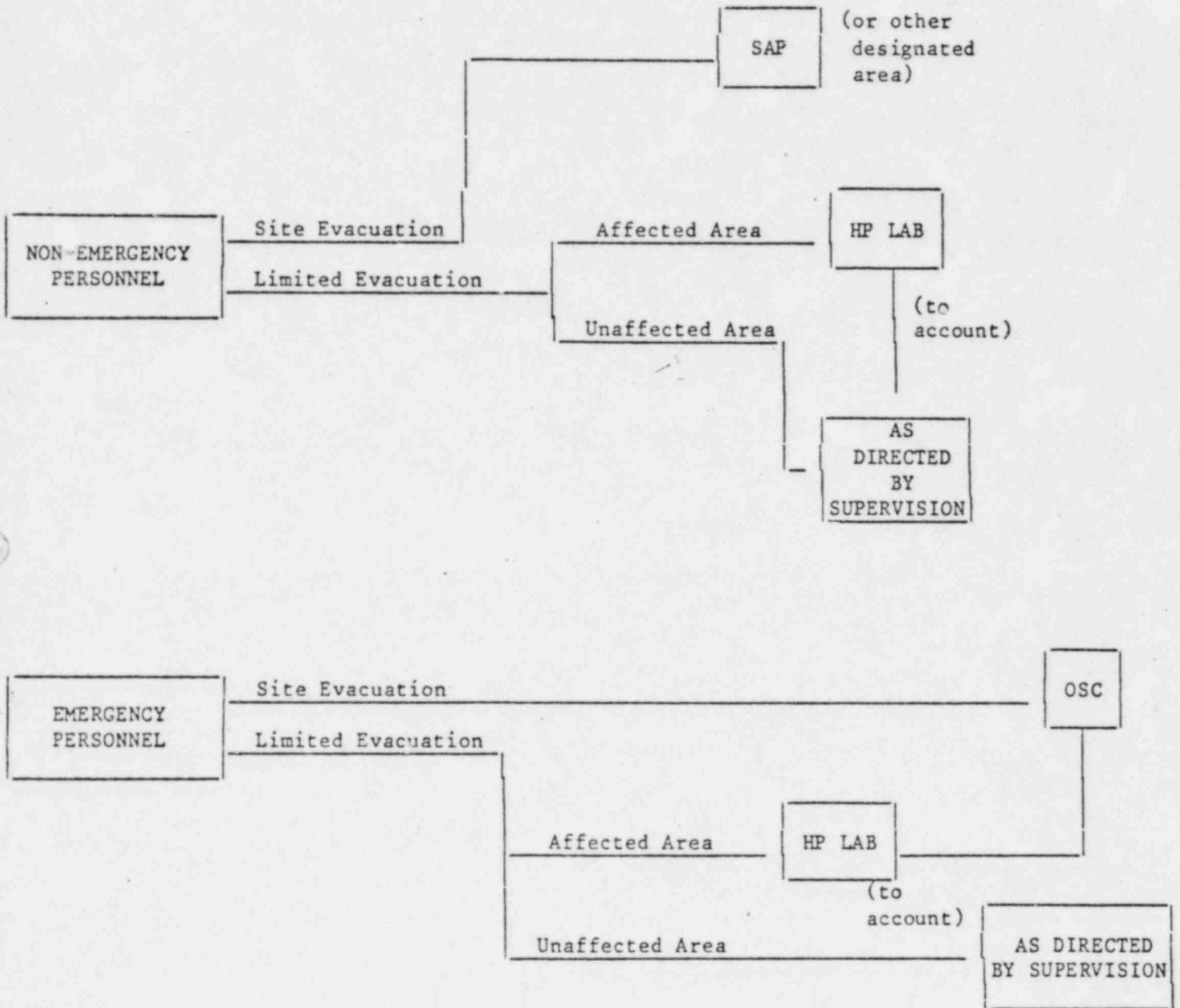
6.2.7 Activate the SAP, if not already activated, in accordance with Emergency Plan Procedure 10-S-01-7, Activation of Emergency Facilities.

6.2.8 Notify offsite agencies that a site evacuation has been initiated.

6.2.9 The Emergency Director will determine if further evacuations are necessary (i.e., Control Room, TSC, OSC, Security Island), as conditions warrant. If one or more of these facilities are to be evacuated, alternate sites will be determined to perform the functions of the evacuated facility.

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ONSITE PERSONNEL RESPONSE FLOWCHART



PLANT OPERATIONS MANUAL

Volume 10

10-S-01-12

Section 01

Revision 3

Date: 7/30/82

EMERGENCY PLAN PROCEDURE

OFFSITE DOSE CALCULATIONS (ERFIS COMPUTER BACKUP)

SAFETY RELATED

Prepared: CS [Signature]  
Reviewed: [Signature] Asst. Plt. Manager, [Signature] Nuclear Support Mgr., [Signature] Plt. Quality Supt.  
PSRC: [Signature] 7/28/82  
Approved: [Signature] Plant Manager 7/29/82

List of Effective Pages:

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
0	None
1	None
2	None
3	None

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## 1.0 PURPOSE

1.1 The purpose of this procedure is to provide a method for offsite dose calculations independent of the ERFIS Computer.

## 2.0 RESPONSIBILITIES

2.1 The Emergency Director is responsible for implementing this procedure when necessary.

2.2 Operations personnel designated by the Emergency Director are responsible for performing the dose calculations during the initial phases of the emergency condition, if necessary.

2.3 Once the TSC is manned, the Radiation Protection Manager is responsible for the performance of offsite dose calculations as necessary.

## 3.0 REFERENCES

3.1 USEPA, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-520/1-75-001, September, 1975, corrected February, 1980

3.2 GGNS FSAR

## 4.0 ATTACHMENTS

4.1 Attachment I - Recommended Protective Actions to Reduce Whole Body and Thyroid Dose from Exposure to a Gaseous Plume

4.2 Attachment II - Contingency Source Terms

4.3 Attachment III - Determination of Atmospheric Stability Class

4.4 Attachment IV - Dispersion Factor Tables

4.5 Attachment V - Wind Direction Versus Sector



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## 5.0 DEFINITIONS

- 5.1  $X$  = Airborne activity concentrate in  $\text{Ci}/\text{m}^3$ ,  $\text{uCi}/\text{cm}^3$ .
- 5.2  $Q$  = Rate of release of source material in  $\text{Ci}/\text{sec}$ .
- 5.3  $\bar{u}$  = Average wind speed in mph.
- 5.4  $X/Q$  = Atmospheric dispersion factor in  $\text{sec}/\text{m}^3$ .
- 5.5  $\sigma_\theta$  = Standard deviation of wind direction in degrees.

## 6.0 DETAILS

### 6.1 Determination of Atmospheric Stability Class and Meteorological Data

#### 6.1.1 Determine stability class as follows:

- a. Obtain the  $\Delta T$  value from the BOP computer. Record this value on Data Sheet I (form HP-1027). Be sure to include plus or minus sign. If  $\Delta T$  is not available, then determine  $\sigma_\theta$  from the BOP computer and record this value on Data Sheet I.
- b. Determine the stability class from the table on Data Sheet I. Record the stability class on Data Sheet I.

#### NOTE

If  $\Delta T$  or  $\sigma_\theta$  is not available, refer to Attachment III.

- c. Record the average wind speed ( $\bar{u}$ ) and direction from the MET tower monitor on Data Sheet I. (If average wind speed is not available, use instantaneous value.) Record the sector into which the wind is blowing on Data Sheet I (refer to Attachment V).

#### NOTE

If Met tower data is not available in the TSC or EOF, then this information should be requested from the Control Room prior to making a dose projection.

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6.2 Source Term (Q)-----> Projected Dose

- 6.2.1 Determine the release rates of radioactive noble gases ( $Q_{NG}$ ) and radioiodine ( $Q_I$ ). Add all release points together to determine total release rate. Record these values on Data Sheet I.

NOTE

If these values are not available, refer to Attachment II.

- 6.2.2 To determine the downwind concentration of noble gases and radioiodine, refer to the Dispersion Factor Tables for the appropriate stability (or isopleth map overlay) and complete the following steps:
- Find the windspeed in the vertical column on the left and then move to the right to the distance at which you want to find the dose rate. Record the value of X/Q on Data Sheet I.
  - To determine the dose rate at a point other than those on the Dispersion Factor Tables, use the isopleth map overlay for the appropriate stability class. Locate the desired downwind distance on the map. If the desired downwind distance is not located on an isopleth line, move INWARD to the next line.

NOTE

The line numbers on the isopleth are the ones which are CIRCLED.

Refer to the table on the right of the isopleth overlay (or Dispersion Factor Tables, Attachment IV) and find the X/Q value for the appropriate LINE NUMBER and WIND SPEED. Record this value on Data Sheet I.

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NOTE

All X/Q values on the isopleth table are to be multiplied by 10<sup>-6</sup>.

- c. Multiply the X/Q value by the NOBLE GAS RELEASE RATE (Q<sub>NG</sub>) to obtain the downwind NOBLE GAS AIRBORNE ACTIVITY CONCENTRATION (X<sub>NG</sub>). Record this value on Data Sheet I.
  - d. Multiply the X/Q value by the RADIOIODINE RELEASE RATE (Q<sub>I</sub>) to obtain the downwind RADIOIODINE AIRBORNE ACTIVITY CONCENTRATION (X<sub>I</sub>). Record this value on Data Sheet I.
- 6.2.3 The radiation dose of concern consists of whole body dose received directly from noble gas and/or the thyroid dose from the ingestion of radioiodine.
- 6.2.4 To estimate the PROJECTED WHOLE BODY DOSE, perform the following (record applicable data on Data Sheet I):
- a. Estimate the TIME AFTER REACTOR SHUTDOWN.
  - b. Select the appropriate NOBLE GAS CONVERSION FACTOR from Figure 1 for the time *est* above. Record this factor on Data Sheet I.
  - c. Determine estimated dose rate:  
  
Dose Rate = (X<sub>NG</sub>) X (NOBLE GAS CONVERSION FACTOR)
  - d. Once the dose rate is known (field monitoring or calculated), this value can be used to project dose rate at other areas of interest in the plume as follows:

$$\begin{matrix} \text{DOSE RATE} & & = & \frac{\text{X/Q FOR POINT OF INTEREST}}{\text{X/Q FOR KNOWN DOSE RATE}} & \text{KNOWN} \\ \text{(at point of interest)} & & & \text{LOCATION} & \text{DOSE} \\ & & & & \text{RATE} \end{matrix}$$

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- e. Estimate the PROJECTED EXPOSURE TIME (duration of exposure at the location of concern).

NOTE

If the duration of exposure is initially UNKNOWN, use 2 HOURS for the PROJECTED EXPOSURE TIME until a more accurate estimate can be obtained.

- f. Determine WHOLE BODY DOSE:

$$\text{DOSE} = \text{DOSE RATE} \times \text{PROJECTED EXPOSURE TIME}$$

- 6.2.5 To estimate the PROJECTED THYROID DOSE, refer to Figure 3 and perform the following (record applicable data on Data Sheet I):

- a. Find the point on the right vertical axis of the graph corresponding to the calculated RADIOIODINE AIRBORNE CONCENTRATION.
- b. Move horizontally to the point corresponding to the PROJECTED EXPOSURE TIME and interpolate between the diagonal dose lines to obtain a PROJECTED DOSE.

NOTE

Normally, the ADULT thyroid dose is determined (from the values listed on the left side of the diagonal thyroid dose lines).

Alternate method to calculate 2 Hour Thyroid Commitment (in Rem):

Multiply the Iodine Concentration by

$$6 \times 10^5 \quad \frac{\text{Rem M}^3}{\text{Ci}}$$

In the absence of a beta component in field monitoring results, consideration should be given to the possible existence of an elevated plume on iodine ingestion.

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Figure 1

Noble Gas Conversion Factors

TIME AFTER SHUTDOWN (Hours)	CONVERSION FACTOR	Rem/hr Ci/m <sup>3</sup>
0	-----	530
1.5	-----	500
2.5	-----	430
3.5	-----	370
4.5	-----	310
6.5	-----	230
12.5	-----	120

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Figure 2

Source Term for Drywell and Containment  
Based on Radiation Levels

<u>Time After Shutdown (hours)</u>	CONVERSION FACTOR for Drywell (7.65 E9cc)	CONVERSION FACTOR for Containment (3.96 E10cc)
0 - - - - -	1.44 E13 - - - - -	7.47 E13
1.5 - - - - -	1.53 E13 - - - - -	7.92 E13
2.5 - - - - -	1.78 E13 - - - - -	9.21 E13
3.5 - - - - -	2.07 E13 - - - - -	1.07 E14
4.5 - - - - -	2.47 E13 - - - - -	1.28 E14
6.5 - - - - -	3.33 E13 - - - - -	1.72 E14
12.5 - - - - -	6.38 E13 - - - - -	3.30 E14

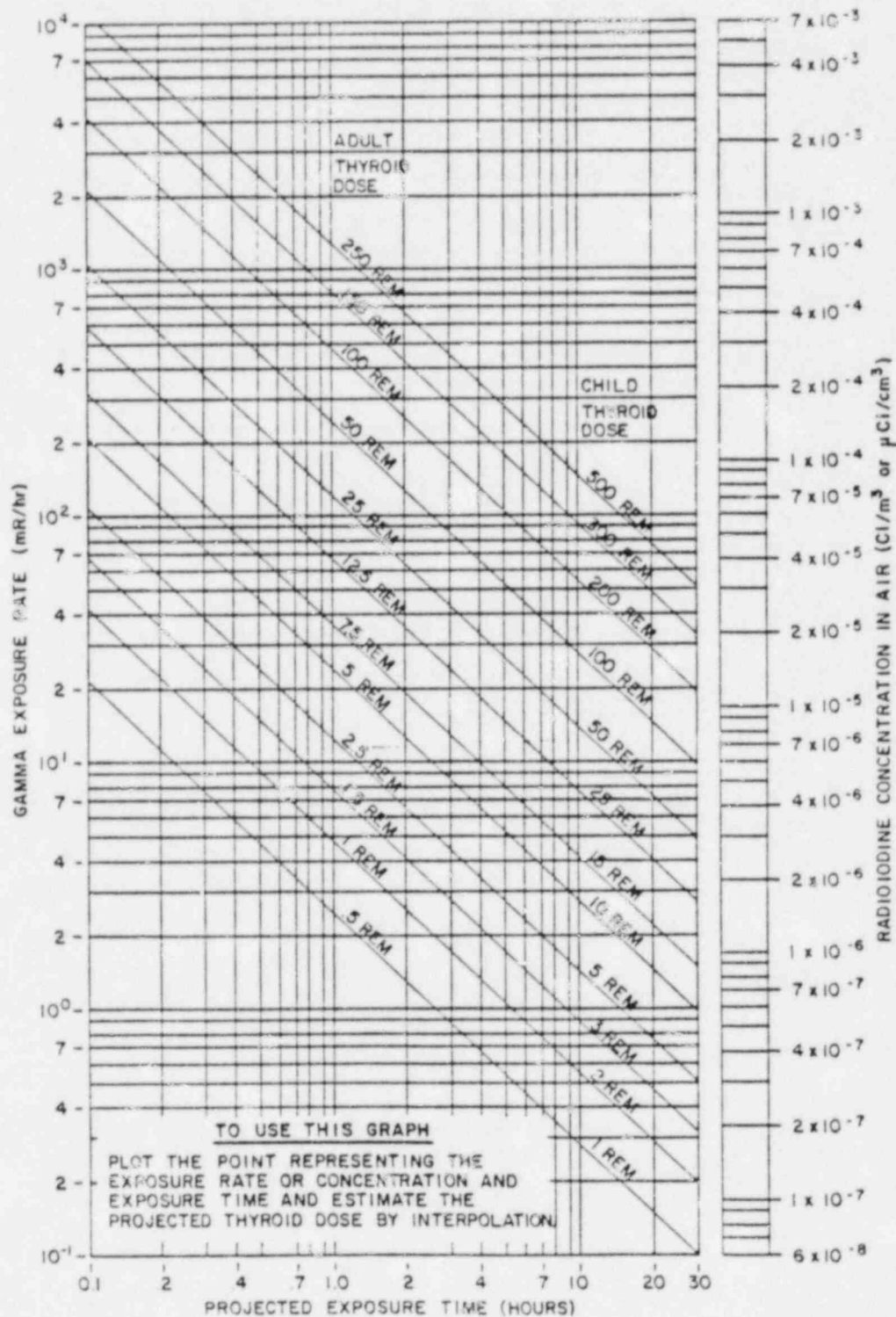
Given the formula: Dose Rate (from ARMs) X Conversion factor (above) = Activity available to be released (Curies)

CAUTION

The values obtained in the above are conservative numbers, and if it is possible a grab sample should be obtained to determine actual values.

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FIGURE 3 PROJECTED THYROID DOSE AS A FUNCTION OF EITHER GAMMA EXPOSURE RATE, OR RADIOIODINE CONCENTRATION IN AIR AND THE PROJECTED EXPOSURE TIME.



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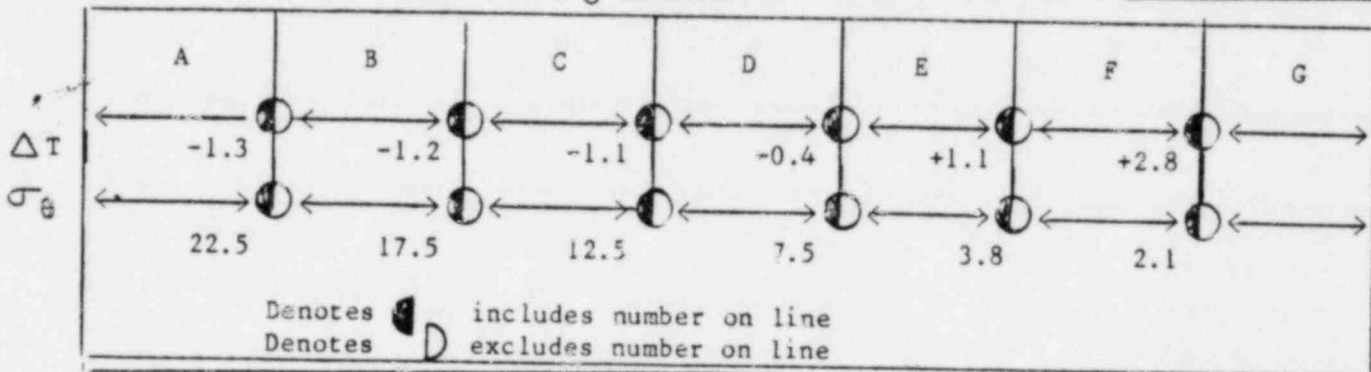
DATA SHEET I (EXAMPLE)

DOSE CALCULATION WORKSHEET

SAFETY RELATED

I. DETERMINATION OF ATMOSPHERIC STABILITY CLASS

$\Delta T =$  \_\_\_\_\_ °F       $\sigma_{\theta}$  \_\_\_\_\_ °(degrees)      STABILITY CLASS \_\_\_\_\_



WIND SPEED ( $\bar{u}$ ) \_\_\_\_\_ mph; FROM \_\_\_\_\_ °; TOWARDS \_\_\_\_\_ °; (downwind) INTO Sector \_\_\_\_\_ (A-R)

II. DETERMINATION OF WHOLE BODY AND THYROID DOSE

II.

$Q_{NG} =$  \_\_\_\_\_ Ci/sec       $Q_I =$  \_\_\_\_\_ Ci/sec

LOCATION (mi.)	X/Q (Sec/m <sup>3</sup> )	X <sub>NG</sub> <sup>3</sup> (Ci/M <sup>3</sup> )	NOBLE GAS CONVERSION FACTOR	WHOLE BODY DOSE RATE (R/hr)	HOUR	X	HOUR
					W.B. DOSE COMM. (Rem)	I <sup>3</sup> (Ci/M <sup>3</sup> )	THYROID DOSE COMM. (Rem)
	$\times 10^6$						
	$\times 10^6$						
	$\times 10^6$						
	$\times 10^6$						
	$\times 10^6$						
	$\times 10^6$						
	$\times 10^6$						

NOTES

PERFORMED BY: \_\_\_\_\_

DATE \_\_\_\_\_ TIME \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_



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RECOMMENDED PROTECTIVE ACTIONS TO REDUCE WHOLE BODY AND THYROID  
DOSE FROM EXPOSURE TO A GASEOUS PLUME

Projected Dose (Rem) to the Population	Recommended Actions (a)	Comments
Whole body <1 Thyroid <5	No planned protective actions. (b) State may issue an advisory to seek shelter and await further instructions.	Previously recommended protective actions may be reconsidered or terminated.
Whole body 1 to <5 Thyroid 5 to <25	Seek shelter as a minimum. Consider evacuation. Evacuate unless constraints make it impractical. Monitor environmental radiation levels. Control access.	If constraints exist, special consideration should be given for evacuation of children and pregnant women.
Whole body 5 and above Thyroid 25 and above	Conduct mandatory evacuation. Monitor environmental radiation levels and adjust area for mandatory evacuation based on the levels. Control access.	Seeking shelter would be an alternative if evacuation were not immediately possible.
Projected Dose (Rem) to Emergency Team Workers		
Whole body 25 Thyroid 125	Control exposure of emergency team members to these levels except for lifesaving missions. (Appropriate controls for emergency workers, include time limitations, respirators, and stable iodine.)	Although respirators and stable iodine should be used where effective to control dose to emergency team workers, thyroid dose may not be a limiting factor for lifesaving missions.
Whole body 75	Control exposure of emergency team members performing lifesaving missions to this level. (Control of time of exposure will be most effective.)	

- (a) These actions are recommended for planning purposes. Protective action decisions at the time of the incident must take existing conditions into consideration.
- (b) At the time of the incident, officials may implement low-impact protective actions in keeping with the principle of maintaining radiation exposures As Low As Reasonably Achievable.

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CONTINGENCY SOURCE TERMSINSTRUCTIONS

1. This attachment is to be used in the event the release rate of noble gas and/or radioiodine (source term) is unknown (i.e., unmonitored release, release monitor offscale or inoperative, etc.).
2. In the initial phases of the accident, in which case the release rates (Q) are unknown and results have not yet been received from offsite monitoring teams, use METHOD 1 (Projected Source Terms).
3. If results have been obtained from offsite monitoring teams, use METHOD 2 (Field Data -----> Source Term).
4. Once the release rates (source terms) have been estimated, proceed to step 6.2 of the main procedure to determine projected doses.
5. Update the estimated source terms and projected doses as necessary using field data as received from offsite monitoring teams.

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CONTINGENCY SOURCE TERMS

METHOD 1 -

PROJECTED SOURCE TERMS

1. Default Values for Source Terms

Select the accident closest to the plant condition and utilize the source term Q and section 6.2 of the main procedure to calculate dose projections.

Accident	QI (Ci/s)	QNG (Ci/s)
LOCA	.15	8.8
Spent Fuel Handling	.0014	11.0
Off Gas System Rupture	---	4.7
Liquid Radwaste System Leak	.058	---

2. Dose Calculations Using Worst Case Meteorology

If the effluent monitors are inoperative, select the emergency closest to the plant condition and use the projected dose for accident classification.

NOTE: General emergency classification requires actual meteorology.

Accident	Site Boundary		LPZ (2 mi)	
	DI (Rem)	DNG (Rem)	DI (Rem)	DNG (Rem)
LOCA	95.3	8	29.3	2.4
Spent Fuel Handling	9	10	.3	3.0
Off Gas System Radwaste	-----	4.2	-----	1.3
Liquid Radwaste System Leak	37.6	----	11.3	----

NOTE: Iodine dose commitments are based on a 2 hour plume exposure time. Noble gas doses are based on a 2 hour exposure time.

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CONTINGENCY SOURCE TERMS

METHOD 2 -

FIELD DATA -----> SOURCE TERM

1. Determine stability class using section 6.1 of the main procedure.

STABILITY CLASS = \_\_\_\_\_; u = \_\_\_\_\_ mph, from \_\_\_\_\_° to \_\_\_\_\_°

2. Attach the appropriate isopleth map overlay to the 10 MILE EPZ MAP with the isopleth centerline in the TOWARD wind direction.
3. Direct an offsite monitoring team as close as possible to an isopleth line. Have the team measure whole body dose rate and if possible, obtain an iodine air sample.

ISOPLETH LINE NUMBER = \_\_\_\_\_; DOSE RATE = \_\_\_\_\_ R/hr  
(circled number)

4. Refer to the table on the right of the isopleth overlay (or Attachment IV) X/Q value for the appropriate LINE NUMBER and WIND SPEED (u).

X/Q = \_\_\_\_\_ x 10<sup>-6</sup> sec/m<sup>3</sup>

5. To determine NOBLE GAS RELEASE RATE (Q<sub>NG</sub>):

a.  $X_{NG} = \frac{\text{MEASURE DOSE RATE}}{\text{NOBLE GAS DOSE RATE CONVERSION FACTOR}}$   
(from Figure 1 and time of shutdown)

b.  $Q_{NG} = (X_{NG}) \div (X/Q)$

$Q_{NG} = \frac{\text{_____}}{\text{_____}} \times 10^{-6} = \text{_____ Ci/sec}$

6. To determine PROJECTED WHOLE BODY DOSE at other desired locations, proceed to section 6.2 of the main procedure, or use NOTE below.

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CONTINGENCY SOURCE TERMS

METHOD 2 -

FIELD DATA -----> SOURCE TERM

NOTE

To project Whole Body Dose Rate at other locations without calculating a source term in advance, perform the following:

- a. Record the X/Q value for the distance of the known dose rate (see step 4. of this attachment) on Data Sheet I.
- b. Determine the X/Q value for the point of the interest using the appropriate isopleth line number and wind speed.
- c. Calculate the Dose Rate at the point of interest:

$$\begin{array}{l} \text{DOSE RATE} \\ \text{(at point of} \\ \text{interest)} \end{array} = \frac{\text{X/Q FOR POINT OF INTEREST}}{\text{X/Q FOR KNOWN DOSE RATE LOCATION}} \times \begin{array}{l} \text{KNOWN} \\ \text{DOSE} \\ \text{RATE} \end{array}$$

7. To determine RADIOIODINE RELEASE RATE ( $Q_I$ ), refer to Figure 3.
  - a. For a quick, rough estimate of RADIOIODINE CONCENTRATION ( $X_I$ ), find the measured WHOLE BODY DOSE RATE on the left vertical axis. Move horizontally across the graph to find the corresponding  $X_I$ .

$$X_I = \underline{\hspace{2cm}} \text{ Ci/m}^3$$

- b. OR, as analysis of iodine air samples for the desired location are completed, record the results below:

$$X_I = \underline{\hspace{2cm}} \text{ Ci/m}^3$$

8. Determine RADIOIODINE RELEASE RATE ( $Q_I$ ) as follows:

$$Q_I = (X_I) \div (X/Q)$$

$$Q_I = \underline{\hspace{1cm}} \div \underline{\hspace{1cm}} \times 10^{-6} = \underline{\hspace{1cm}} \text{ Ci/sec}$$

9. To determine PROJECTED THYROID DOSE at the location sampled or other desired locations, proceed to section 6.2 of the main procedure.

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DETERMINATION OF ATMOSPHERIC STABILITY CLASS

(MET TOWER DATA UNAVAILABLE)

INSTRUCTIONS

1. Visually determine the stability class with the aid of the table below.
2. Record the estimated STABILITY CLASS and AVERAGE WIND SPEED (u) on Data Sheet I.
3. Return to section 6.2 of the main procedure.

Surface Wind Speed, mph	Day			Night	
	Incoming Solar Radiation STRONG	MODERATE	SLIGHT	Thinly Overcast > 1/2 low cloud	<1/2 cloud
< 4	A	A-B	B	F	G
4-7	A-B	B	C	E	F
7-11	B	B-C	D	D	E
11-13	C	C-D	D	D	D
> 13	C	D	D	D	D

The neutral Class D should be assumed for overcast conditions during day and night.

STRONG incoming solar radiation corresponds to a solar altitude greater than 60° with clear skies; SLIGHT incoming solar radiation corresponds to a solar altitude from 15°-35° with clear skies. Cloudiness will decrease incoming solar radiation and should be considered along with solar altitude when determining solar radiation. Incoming radiation that would be strong with clear skies can be expected to reduce to moderate with broken (5/8 to 7/8 cloud cover) middle clouds and to slight with broken low clouds. Night refers to the period from one hour before sunset to one hour after sunrise.

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DISPERSION FACTOR TABLES

ATMOSPHERIC DISPERSION FACTORS ( $X/Q \times 10^{-6}$ )

A STABILITY

$\bar{X}_u/Q (x10^{-6})$	2.3	.589	.260	.140
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	5.15	1.32	.58	.31
2	2.57	.66	.29	.16
3	1.72	.44	.19	.10
4	1.29	.33	.15	.08
5	1.03	.26	.12	.06
6	.86	.22	.10	.05
7	.74	.19	.08	.04
8	.64	.16	.07	.03
9	.57	.15	.06	.03
10	.51	.13	.06	.03
12	.43	.11	.05	.02
14	.37	.09	.04	.02
16	.32	.08	.04	.02
18	.29	.07	.03	.02
20	.25	.07	.03	.01
25	.21	.05	.02	.01
30	.17	.04	.02	.01
40	.13	.03	.01	.01

B STABILITY

$\bar{X}_u/Q (x10^{-6})$	13.82	2.02	.367	.190
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	30.92	4.52	.82	.43
2	15.46	2.26	.41	.21
3	10.31	1.51	.27	.14
4	7.73	1.13	.21	.11
5	6.18	.90	.16	.09
6	5.15	.75	.14	.07
7	4.42	.65	.12	.06
8	3.86	.56	.10	.05
9	3.44	.50	.09	.05
10	3.09	.45	.08	.04
12	2.50	.38	.07	.04
14	2.21	.32	.06	.03
16	1.93	.28	.05	.03
18	1.72	.25	.05	.02
20	1.55	.23	.04	.02
25	1.24	.18	.03	.02
30	1.03	.15	.03	.01
40	.77	.11	.02	.01

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DISPERSION FACTOR TABLES

ATMOSPHERIC DISPERSION FACTORS ( $X/Q \times 10^{-6}$ )

C STABILITY

$\bar{X}_u/Q (x10^{-6})$	93.5	5.87	1.121	.321
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	209.16	13.13	2.51	.72
2	104.56	6.57	1.25	.36
3	69.72	4.38	.84	.24
4	52.29	3.28	.63	.18
5	41.83	2.63	.50	.14
6	34.86	2.19	.42	.12
7	29.88	1.88	.36	.10
8	26.14	1.64	.31	.09
9	23.24	1.46	.28	.08
10	20.92	1.31	.25	.07
12	17.43	1.09	.21	.06
14	14.94	.94	.18	.05
16	13.07	.82	.16	.04
18	11.62	.73	.14	.04
20	10.46	.66	.13	.04
25	8.37	.53	.10	.03
30	6.97	.44	.08	.02
40	5.23	.33	.06	.02

D STABILITY

$\bar{X}_u/Q (x10^{-6})$	205.6	21.43	5.545	1.994
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	460	47.9	12.40	4.46
2	230	24.0	6.20	2.23
3	153	16.0	4.13	1.49
4	115	12.0	3.10	1.12
5	92	9.6	2.48	.89
6	77	8.0	2.07	.74
7	66	6.8	1.77	.64
8	57	6.0	1.55	.56
9	51	5.3	1.38	.50
10	46	4.8	1.24	.45
12	38	4.0	1.03	.37
14	33	3.4	.89	.32
16	29	3.0	.78	.28
18	26	2.7	.69	.25
20	23	2.4	.62	.22
25	18	1.9	.50	.18
30	15	1.6	.41	.15
40	11	1.2	.31	.11



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DISPERSION FACTOR TABLES

ATMOSPHERIC DISPERSION FACTORS ( $X/Q \times 10^{-6}$ )

E STABILITY

$\bar{X}_u/Q (x10^{-6})$	336.14	43.7	12.9	5.28
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	752	97.8	28.86	11.81
2	376	48.9	14.43	5.91
3	251	32.6	9.62	3.94
4	188	24.4	7.21	2.95
5	150	19.6	5.77	2.36
6	125	16.3	4.81	1.97
7	107	14.0	4.12	1.69
8	94	12.2	3.61	1.48
9	84	10.9	3.21	1.31
10	75	9.8	2.89	1.18
12	63	8.1	2.40	.98
14	54	7.0	2.06	.84
16	47	6.1	1.80	.74
18	42	5.4	1.60	.66
20	38	4.9	1.44	.59
25	30	3.9	1.15	.47
30	25	3.3	.96	.39
40	19	2.4	.72	.30

F STABILITY

$\bar{X}_u/Q (x10^{-6})$	621.89	93.347	30.036	12.739
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	139.2	208.8	67.2	28.5
2	695.6	104.4	33.6	14.2
3	463.7	69.6	22.4	9.5
4	347.8	52.2	16.8	7.1
5	278.2	41.8	13.4	5.7
6	231.9	34.8	11.2	4.7
7	198.7	29.8	9.6	4.1
8	173.9	26.1	8.4	3.6
9	154.6	23.2	7.5	3.2
10	139.1	20.9	6.7	2.8
12	115.9	17.4	5.6	2.4
14	99.4	14.9	4.8	2.0
16	86.9	13.1	4.2	1.8
18	77.3	11.6	3.7	1.58
20	69.6	10.4	3.4	1.42
25	55.6	8.4	2.7	1.14
30	46.4	7.0	2.2	.95
40	34.8	5.2	1.7	.71

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DISPERSION FACTOR TABLES

ATMOSPHERIC DISPERSION FACTORS ( $X/Q \times 10^{-6}$ )

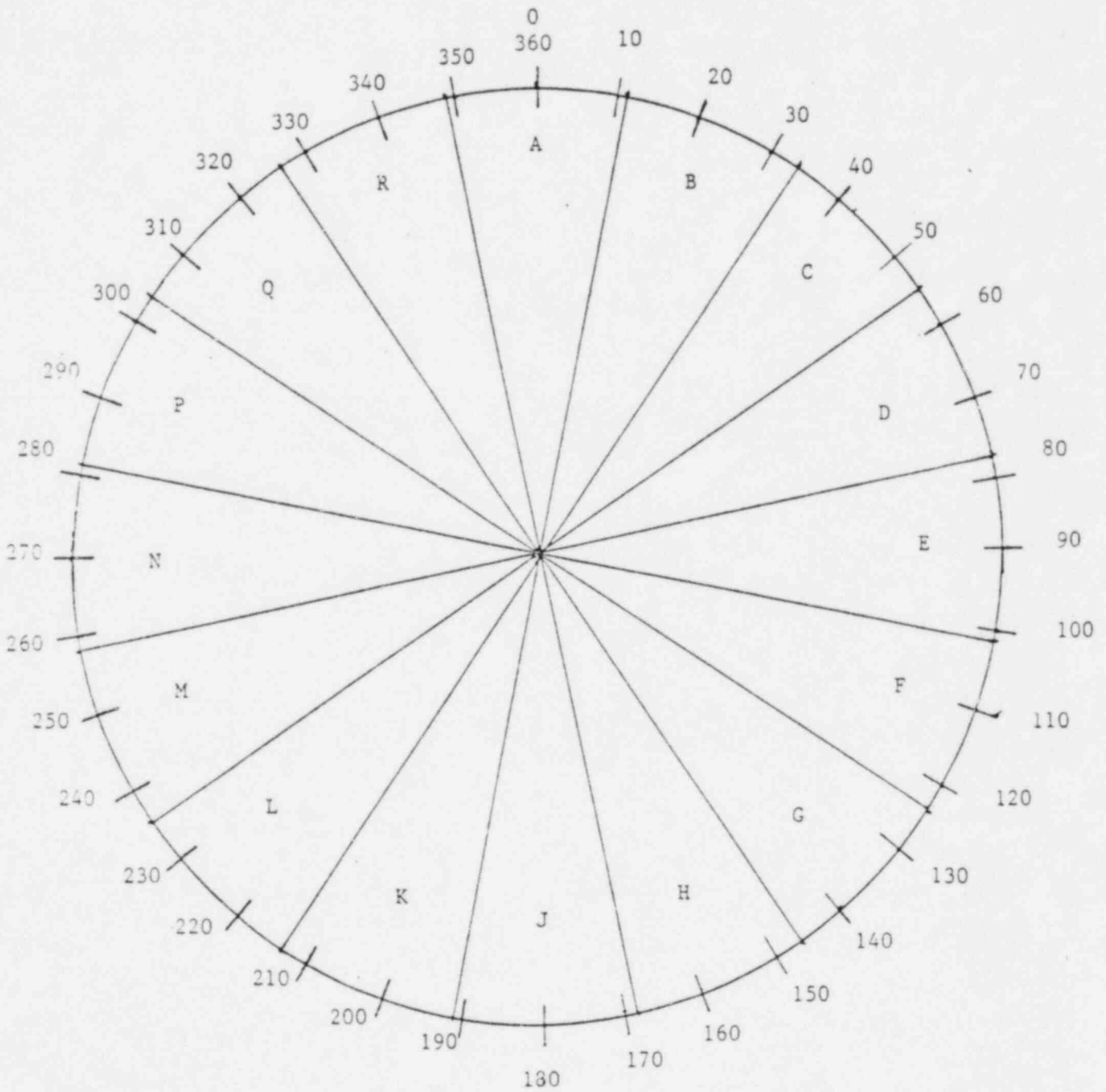
G STABILITY

$\bar{X}_u/Q (x10^{-6})$	1013.82	185.67	67.29	31.2
Windspeed Mi/Hr	.432 mi	2 mi	5 mi	10 mi
1	2268	415	150.5	69.8
2	1134	208	75.3	34.9
3	756	138	50.2	23.3
4	567	104	37.6	17.4
5	454	83	30.1	14.0
6	378	69	25.1	11.6
7	324	59	21.5	10.0
8	283	52	18.8	8.7
9	252	46	16.7	7.8
10	227	42	15.1	7.0
12	189	35	12.5	5.8
14	162	30	10.8	5.0
16	142	26	9.4	4.4
18	126	23	8.4	3.9
20	113	21	7.5	3.5
25	91	17	6.0	2.8
30	76	14	5.0	2.3
40	57	10	3.8	1.7

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WIND DIRECTION VERSUS SECTOR

(Sector Letter Inside Circle)



Volume 10  
Section 01

10-S-01-13  
Revision 1  
Date: 7-20-82

EMERGENCY PLAN PROCEDURE  
ONSITE RADIOLOGICAL MONITORING  
SAFETY RELATED

Prepared: CSM RRW 6-21-82

Reviewed: [Signature] D. Thomson Curtley Hayes  
 Asst. Plt. Manager Nuclear Support Mgr. Plt. Qual. Supt.

PSRC: [Signature]

Approved: [Signature] 7/19/82  
 Plant Manager

List of Effective Pages:

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List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	None

Title: Onsite Radiological Monitoring	No.: 10-S-01-13	Revision: 1	Page: 1
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## 1.0 PURPOSE

- 1.1 To provide guidelines for performing radiological surveys within the plant structures and within the protected area boundary during emergency conditions.

## 2.0 RESPONSIBILITIES

- 2.1 The Radiation Protection Manager assures implementation of this procedure upon notification of the Emergency Director.
- 2.2 The Health Physics Coordinator, under the direction of the Radiation Protection Manager, is responsible for the organization, control and operation of Onsite Radiological Monitoring Teams.
- 2.3 The Onsite Radiological Monitoring Team Leader is responsible for assuring that standard Health Physics practices and the applicable Radiation Protection instructions are followed during the course of performing surveys.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

- 4.1 Attachment I - Onsite Monitoring Team Outfitting Considerations

## 5.0 DEFINITIONS

None

## 6.0 DETAILS

- 6.1 Initial actions of the Radiation Protection Manager (Health Physics Coordinator, if not manned)
  - 6.1.1 Determine the areas of the plant and the downwind sectors to be surveyed.
  - 6.1.2 Determine the safest routes to the survey points.
  - 6.1.3 Notify the Health Physics Coordinator, if applicable, as to the areas to be surveyed and the routes to those areas.

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6.1.4 Update the Health Physics Coordinator on wind direction as necessary.

## 6.2 Duties of the Health Physics Coordinator

6.2.1 Designate the Onsite Monitoring Teams as needed. Each team will normally consist of at least two Health Physicists, the most qualified of which will be appointed as team leader.

6.2.2 Discuss with the team leader(s) as to the areas to be surveyed, the routes to those areas, and the equipment the team should be outfitted with (see Onsite Monitoring Team Outfitting Considerations, Attachment I).

6.2.3 Instruct the team leader(s) that team members are not to exceed the normal GGNS exposure limits unless authorized by the Radiation Protection Manager.

6.2.4 Report all survey data to the Radiation Protection Manager as quickly as possible.

## 6.3 Duties of the Onsite Monitoring Team Leader

6.3.1 The team members should be outfitted as directed by the Health Physics Coordinator (see Onsite Monitoring Team Outfitting Considerations, Attachment I).

6.3.2 The team will conduct dose rate, contamination, and airborne surveys as necessary, in accordance with the following Radiation Protection Procedures:

a. Radiation Protection Procedure 08-S-02-21, Dose Rate Surveys

b. Radiation Protection Procedure 08-S-02-22, Contamination Surveys

c. Radiation Protection Procedure 08-S-02-24, Airborne Radioactivity Surveys

6.3.3 Any control areas are to be posted should be done in accordance with Radiation Protection Instruction 08-S-01-7, Establishing and Posting Controlled Areas.

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- 6.3.4 Report all survey data to the Health Physics Coordinator as quickly as possible. Any filters, cartridges, smears, etc. should be returned to the Health Physics Lab or other assigned counting location for further analysis.
- 6.3.5 Survey data sheets are to be delivered to the Health Physics Coordinator. The Health Physics Coordinator will ensure the correctness of the data sheets and update the Radiation Protection Manager as necessary. Final disposition of data sheets will be in accordance with Radiation Protection Procedure 08-S-01-11, Health Physics Document Handling and Control.

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ONSITE MONITORING TEAM OUTFITTING CONSIDERATIONS

1.0 Protective Equipment and Personnel Dosimetry

- 1.1 Respiratory equipment commensurate with the expected radionuclides.
- 1.2 Emergency Dosimeter Set (a 0-200 mR or 0-500 mR, 0-2 R or 0-5 R, and a 0-200 R dosimeter)
- 1.3 Potassium iodide
- 1.4 Protective clothing

2.0 Equipment

- 2.1 High range survey instrument with capability to measure beta and gamma radiation (Eberline RO-7 is preferred, otherwise high range ion chamber).
- 2.2 High volume portable air sampler.
- 2.3 Iodine collection media (silver-impregnated silica gel or silver zeolite) and a box of particulate filters.
- 2.4 Separate bag or envelope for each cartridge and filter.
- 2.5 A box of smears for contamination surveys.
- 2.6 Smear envelopes.
- 2.7 Portable radios for field monitoring teams.
- 2.8 Multi-channel analyzers for field monitoring teams.
- 2.9 Standard Health Physics survey forms for the designated areas to be monitored.
- 2.10 Boundary marking and posting material



Volume 10

10-S-01-14

Section 01

Revision 2

Date: 6-23-82

EMERGENCY PLAN PROCEDURE  
OFFSITE RADIOLOGICAL MONITORING  
SAFETY RELATED

Prepared: CE Dwyer / R. P. Ralston  
Reviewed: Paul Dwyer / D. Morrison / C. Kelly  
Asst. Plt. Mgr. Nuclear Support Manager Plant Quality Supt.  
PSRC: \_\_\_\_\_  
Approved: C. K. M. G. 6/15/82  
Plant Manager

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List of TCN's Incorporated:

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TCN No.

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### 1.0 PURPOSE

The purpose of this procedure is to establish guidelines for the offsite monitoring team(s) to utilize in:

- 1.1 The collection of emergency TLD's.
- 1.2 The collection of air samples.
- 1.3 The determination of the environmental immersed whole body dose rate from the plume.
- 1.4 The estimation of the ground level contamination due to the deposition from the plume passage. The procedure is to be implemented by the Radiation Protection Manager or Health Physics Coordinator (if the RPM position is not filled initially).

### 2.0 RESPONSIBILITIES

- 2.1 The Radiation Protection Manager assures implementation of this procedure upon notification by the Emergency Director.
- 2.2 The SAP Coordinator is responsible for forming and dispatching the offsite radiological monitoring teams and giving specific guidance as needed.
- 2.3 The Offsite Monitoring Teams, under the direction of the SAP Coordinator, perform the offsite emergency monitoring.
- 2.4 The Corporate Radiation Emergency Manager assumes the responsibility for the implementation of this procedure once the EOF is activated and manned.

### 3.0 REFERENCES

- 3.1 GGNS Emergency Plan

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#### 4.0 ATTACHMENTS

4.1 Attachment I - Offsite Monitoring Team Outfitting Considerations

#### 5.0 DEFINITIONS

None

#### 6.0 DETAILS

##### 6.1 Initial Actions of the Radiation Protection Manager

6.1.1 The Radiation Protection Manager relays any meteorological data and plant status to the SAP Coordinator.

##### 6.2 Duties of SAP Coordinator

6.2.1 Determine the downwind sectors to be surveyed. The area to be surveyed is a 90° sector containing the plume.

6.2.2 Determine the specific locations within the downwind sectors to be evaluated.

6.2.3 Designate the offsite monitoring teams, each composed of at least one Health Physicist and one other assistant.

6.2.4 Continuously monitor the plume pathway in the event it changes and new survey points must be determined.

6.2.5 Notify the Radiation Protection Manager and Radiation Emergency Manager, if applicable, of current field data.

##### 6.3 Duties of the Offsite Monitoring Team

6.3.1 Personnel assigned to the teams should wear protective clothing, dosimetry devices, and other protective equipment as recommended by the SAP Coordinator when conducting surveys (see Attachment I).

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- 6.3.2 Monitoring teams will normally conduct airborne activity beta, gamma, dose rate, and contamination surveys as appropriate at the designated survey areas and exchange TLD's as directed by the SAP Coordinator and Radiation Emergency Manager. All results are to be recorded on data sheets provided in the emergency kits.

NOTE

Care must be taken to avoid cross contamination of sample materials.

- 6.3.3 The teams should, if possible, maintain communication with the SAP Coordinator in case traveling routes or survey points are changed. If normal communication systems fail, make contact by the nearest available phone.
- 6.3.4 Survey data should be reported to the SAP as quickly as possible. Any filters, cartridges, smears, etc., should be returned to SAP for further analysis.
- 6.3.5 Survey data sheets are to be returned to the SAP Coordinator or Radiation Emergency Manager as appropriate. Final disposition of data sheets will be in accordance with Health Physics Section Procedure 08-S-01-11, Health Physics Document Handling and Control.

6.4 Collection of Emergency TLD's

- 6.4.1 In the event of a site emergency or general emergency, environmental TLD's should be collected to assess the accumulated exposure to the population in that area. Initially, only those environmental TLD's in the 3 or 4 adjoining 22.5° sectors in the downwind direction are to be collected.
- 6.4.2 The environmental TLD's should be replaced by zeroed personnel TLD's. ?
- 6.4.3 The environmental TLD's will be packaged and shipped to the vendor for analysis. When collecting, place each TLD in a labeled envelope.

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## 6.5 Collection of Air Particulate and Air Iodine

6.5.1 For continuous air sampling, the environmental air sample units are to be utilized. Place data on Form HP-1014.

- a. Record the flow rate and turn unit OFF.
- b. Record the elapsed time.
- c. Remove the particulate filter and charcoal media cartridge. Bag filters separately and label.
- d. Place new filter and cartridge in the holder and turn unit ON. Bag separately the used filter and cartridge.
- e. Adjust and record flow rate.
- f. Return to SAP with filters for analysis.

6.5.2 For grab samples, portable air samplers are to be utilized:

- a. Assemble the particulate filter upstream the iodine collection media in the cartridge holder.

### NOTE

Silver impregnated silica gel or silver zeolite cartridges are to be used for iodine collection. Charcoal cartridges are not to be used.

- b. If possible, place sampler about 4 to 5 feet above the ground to sample the breathing zone.
- c. Record the air sample data on Form HP-1014.
- d. Air sampler flow rates vary depending on type of sampler used. To obtain the minimum air sample volume of  $1 \times 10^6$  cc, determine time to run sampler from the following formula:

$$\frac{35.3 \text{ cu ft}}{\text{flow rate (cfm)}} = \text{minutes to run sampler}$$

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- e. Place each filter/cartridge in separate envelopes labeled with date, time, location, and volume.

NOTE

If gross count of iodine is necessary, count iodine collection media in as low a background area as possible (< 300 cpm). Hold the pancake probe of a frisker  $\approx$  1/2 inch from the filter. When the reading stabilizes, record net cpm (gross cpm - background cpm). Using the formula, determine iodine concentration:

$$\text{uci/cc} = \frac{(1.6 \times 10^{-11}) \times (\text{Net cpm})}{(\text{Eff}) \times (\text{Volume})}$$

Where:

Eff = efficiency of frisker

- f. Return samples to SAP for analysis. Analysis results are to be recorded on Form HP-312.

## 6.6 Direct Radiation Plume Survey

- 6.6.1 Direct radiation surveys within the plume area provide a means of determining whole body gamma dose rates and for estimating beta dose rates to the skin. Since most beta-gamma survey instruments are sensitive to the higher beta energies only, it is necessary that a thin window detector be used for plume beta dose rate estimations. The Eberline RQ-7 (or RQ-2/3) or equivalent instrument will be used to estimate the dose rates.
- 6.6.2 Hold the meter approximately four to five feet above the ground with the detector facing upwards in the suspected direction of the plume and obtain a gamma dose rate (beta shield covering the detector window). Record results on Form HP-1014.

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6.6.3 If necessary, estimate beta dose rate as follows:

- a. Subtract gamma dose rate from (beta + gamma) dose rate (beta shield removed)
- b. Multiply the result by the "beta correction factor" for the probe used
- c. Record results on Form HP-1014

6.6.4 If a beta dose rate is significant, then the plume is at ground level and team members should take necessary precautions for appropriate control of ingestion. If no significant beta dose is detected, then the plume is elevated above ground level.

6.6.5 Report results to the SAP as soon as they are available.

#### 6.7 Ground Deposition Surveys

6.7.1 Contamination surveys should be taken using smear filters or other acceptable means in an area of 100 cm<sup>2</sup>.

- a. Place sample or filter in a labeled envelope and retain for analysis at the SAP.

*How & who determines necessary?*

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OFFSITE MONITORING TEAM OUTFITTING CONSIDERATIONS

- 1.0 Protective Equipment and Personnel Dosimetry to be Considered
  - 1.1 Respiratory equipment commensurate with the expected radionuclides.
  - 1.2 Emergency dosimeter set (a 0-200 mR or 0-500 mR, 0-2 R or 0-5 R, and a 0-100 R or 0-200 R dosimeter)
  - 1.3 Potassium Iodide
  - 1.4 Protective clothing
- 2.0 Equipment
  - 2.1 High range survey instrument with capability to measure beta and gamma radiation
  - 2.2 High volume portable air sampler
  - 2.3 Iodine collection media and a box of particulate filters
  - 2.4 Separate bag or envelope for each cartridge, filter, and TLD (quantity - 100+)
  - 2.5 A box of smears for contamination surveys
  - 2.6 Smear envelopes
  - 2.7 Pencils
  - 2.8 Watch
  - 2.9 Map of emergency planning zone
  - 2.10 Dimes to make phone calls



PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-15  
Revision 2  
Date: 7/8/82

EMERGENCY PLAN PROCEDURE  
SITE ACCESS POINT OPERATIONS  
SAFETY RELATED

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PSRC:

*Paul A. Huber 6/29/82*

Approved:

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Plant Manager

List of Effective Pages:

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Atts. I-II

List of TCN's Incorporated:

<u>Revision</u>	<u>TCN No.</u>
1	None
2	None

Title: Site Access Point Operations	No.: 10-S-01-15	Revision: 2	Page: 1
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## 1.0 PURPOSE

The purpose of this procedure is to provide guidelines to the Site Access Point Coordinator in the control and operation of the Site Access Point (SAP) and to delineate the duties and responsibilities of members of the Site Access Team and Offsite Monitoring Team(s).

## 2.0 RESPONSIBILITIES

- 2.1 It is the responsibility of the SAP Coordinator to follow the guidelines of this procedure once the Emergency Director orders the activation of the SAP.
- 2.2 It is the responsibility of the Site Access Point Coordinator to ensure that an individual meets the requirements for access to the site in regard to security, badging, and necessary training. He will coordinate with Security, Health Physics, and Training personnel as necessary to provide the required documentation or training.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

- 4.1 Attachment I - SAP Routes for Evacuating Personnel and Emergency Personnel Reporting to Site
- 4.2 Attachment II - Evacuating Personnel Log

## 5.0 DEFINITIONS

None

## 6.0 DETAILS

- 6.1 The SAP Coordinator will assemble the following two teams:
  - 6.1.1 Site Access Team

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6.1.2 Offsite Monitoring Team(s)

6.2 The Site Access Team will be composed of the following personnel:

6.2.1 The Team Leader will normally be a Health Physicist qualified in personnel dosimetry issue

6.2.2 Other Health Physicists, Chemists, Environmental, and Training personnel as available

6.3 The duties and responsibilities of the Site Access Team are as follows:

6.3.1 Ensure evacuating personnel and emergency personnel are directed as shown in the SAP Routes for Evacuating Personnel and Emergency Personnel Reporting to the Site (similar to Attachment I), as applicable.

6.3.2 For evacuating personnel, perform the following as necessary:

- a. Frisk and decontaminate as directed by the Team Leader
- b. Collect TLD and dosimeters
- c. Complete Evacuating Personnel Log (similar to Attachment II) for all personnel.
- d. Direct personnel as instructed by the SAP Coordinator (i.e., to leave site, standby in Training Building, etc.).

6.3.3 For emergency personnel reporting to the site, perform the following as necessary:

- a. If EOF personnel, direct to EOF.
- b. If plant emergency personnel, check if authorized to report to the site (i.e., emergency response personnel), issue TLD and emergency dosimetry in accordance with Emergency Plan Procedure 01-S-01-17, Emergency Personnel Dosimetry Issue, brief on expected plant conditions, and issue a Site Authorization Pass. Direct the individual to proceed to the site.

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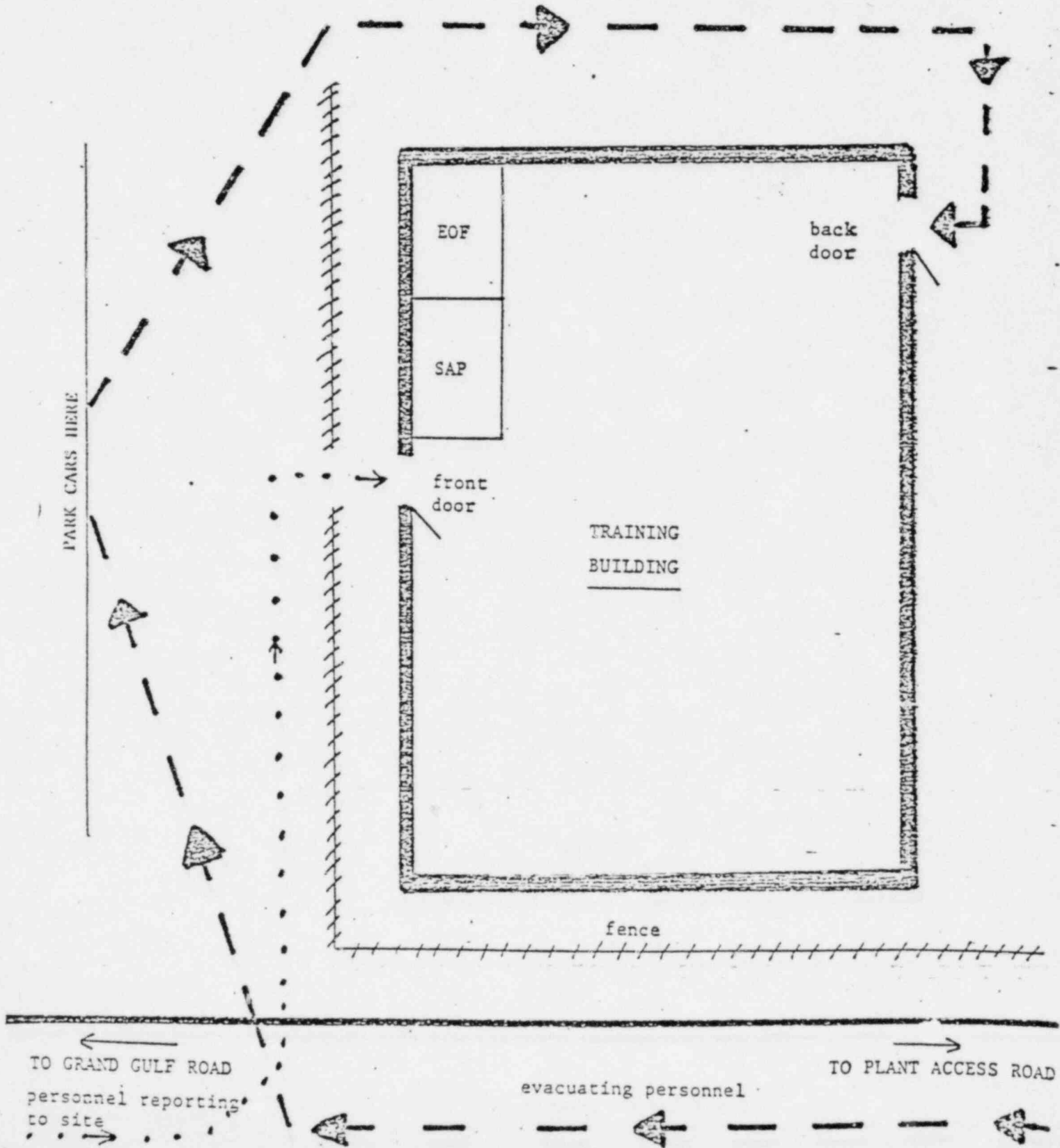
- 6.3.4 If EOF is to be activated, perform initial set-up (plug in telephones, hang maps, provide writing materials, etc.).
- 6.3.5 During an emergency, the Site Access Team is responsible to perform radiological surveys to ensure that the Site Access Point and interim EOF are habitable. These surveys will normally include beta, gamma, and gamma dose rates, airborne radioactivity and radiiodine analysis. Results of these surveys are made to the SAP Coordinator or Radiation Emergency Manager. Survey data sheets are to be used and will be handled in accordance with Radiation Protection Instruction 08-S-01-11, Health Physics Document Handling and Control.
- 6.4 The Offsite Monitoring Team(s) will be directed by the SAP Coordinator. The Radiation Protection Manager, in the TSC, will instruct the SAP Coordinator as to the appropriate areas that are to be surveyed. The Offsite Monitoring Team(s) will perform the following:
- 6.4.1 Report to designated area as quickly as possible.
- 6.4.2 Perform surveys in accordance with Emergency Plan Procedure 10-S-01-14, Offsite Surveys.
- 6.4.3 Maintain communications with SAP.
- 6.4.4 Return samples to SAP as soon as possible.
- 6.5 Qualified personnel will analyze the samples from the area surveyed, in accordance with the applicable Health Physics instructions, and report the results to the SAP Coordinator.
- 6.6 The SAP Coordinator will report the sample location, time, results, etc. to the Radiation Protection Manager in the TSC.

NOTE

Once the EOF is activated, the Radiation Emergency Manager will assume the responsibility of direction of the offsite monitoring teams. The SAP Coordinator is then to proceed as directed by the Radiation Protection Manager.

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SAP ROUTES FOR EVACUATING PERSONNEL  
AND EMERGENCY PERSONNEL REPORTING TO SITE





PLANT OPERATIONS MANUAL

Volume 10

10-S-01-16

Section 01

Revision 1

Date: 2-8-82

EMERGENCY PLAN PROCEDURE

PERSONNEL ACCOUNTABILITY

SAFETY RELATED

Prepared: John Vincelli / Raymond R. Wicker 1/19/82

Reviewed: Bob Stewart / Paul [unclear] / [unclear]  
Asst. Plt. Manager      Nuclear Support Mgr.      Plt. Quality Supt.

PSRC: [unclear] 1/23/82

Approved: C.K.M.G.  
Plant Manager

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Title: Personnel Accountability	No.: 10-S-01-16	Revision: 1	Page: 1
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## 1.0 PURPOSE

- 1.1 To describe the actions and responsibilities necessary to ensure effective personnel accountability within the protected area during limited and site evacuations.
- 1.2 To provide a means to ensure an expeditious evacuation of personnel outside the protected area (Administration Building, construction site, etc.) during an emergency evacuation.

## 2.0 RESPONSIBILITIES

- 2.1 The Shift Security Supervisor is responsible for implementing the appropriate accountability procedures for the type of evacuation in effect.
- 2.2 The Shift Superintendent/Emergency Director is responsible for initiating any action necessary to secure individuals unaccounted for.
- 2.3 Plant personnel are responsible for being familiar with the contents of this procedure in order to expedite the accountability/evacuation process.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

- 5.1 Emergency Personnel - Personnel qualified as Radiation Worker II or III (or equivalent as determined by the Emergency Director). In addition, these personnel should be qualified to wear respiratory equipment.
- 5.2 Non-Emergency Personnel - Plant staff personnel not qualified Radiation Worker II or III, visitors, contractors, vendors, construction workers, etc.



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## 6.0 DETAILS

### 6.1 Limited Evacuation Accountability

- 6.1.1 There are two means by which to originate a limited evacuation; first by announcement from the Control Room, and secondly by personnel evacuating an area or zone they have determined to be unsafe without Control Room instruction.
- 6.1.2 When the limited evacuation announcement is made by the Shift Superintendent/Emergency Director, as per Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel, personnel in the affected area(s) or zone(s) should proceed directly to the accountability area designated in the announcement, normally the Health Physics Station. It is not necessary to key card out of the affected area(s) or zone(s) during the evacuation, but personnel are required to key into the emergency accountability box located at the Health Physics Station upon arrival.
- 6.1.3 The Shift Security Supervisor will be notified of the area(s) or zone(s) to be evacuated by the Shift Superintendent/Emergency Director, who will also request the results of the accountability process as soon as the information is available.
- 6.1.4 In the event that personnel in an area determine the need for evacuation and no Control Room announcement for a limited evacuation has been made, these personnel should immediately evacuate the area and report to the Health Physics Station for accountability. During this exit, the Control Room shall be notified of the evacuation and the conditions that warranted it. It is not necessary to key card out of the affected area, but only to key card into the emergency accountability box located at the Health Physics Station.
- 6.1.5 The Shift Superintendent/Emergency Director shall notify the Shift Security Supervisor of the area(s) or zone(s) evacuated and request the appropriate accountability measures to be activated. The Shift Security Supervisor shall report the accountability status to the Shift Superintendent/Emergency Director as soon as the information is available.

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- 6.2 Site Evacuation Accountability Within the Protected Area (Unit 1 Security Fence)
- 6.2.1 The Shift Superintendent/Emergency Director will sound the site evacuation alarm and make the associated announcement as per Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel. In response to the site evacuation, the Shift Security Supervisor will implement the appropriate accountability measures.
- 6.2.2 All emergency personnel, except the Control Room and Technical Support personnel, shall report to the Operational Support Center (OSC) (Maintenance Shop). Upon arrival at the OSC, emergency personnel shall key card into the emergency accountability box. All non-emergency personnel must respond to the site evacuation as outlined in Emergency Plan Procedure 10-S-01-25, Onsite Personnel Response.
- 6.2.3 The Shift Security Supervisor will determine the accountability status and report it to the Shift Superintendent/Emergency Director as soon as the information is available.
- 6.3 Evacuation of Personnel Outside the Protected Area
- 6.3.1 Since the accountability of persons not within the protected area is impracticable, the following program must be instituted and maintained to ensure the proper evacuation of these areas.
- 6.3.2 Personnel must receive training in their proper response to take during an evacuation. This training is generally in accordance with Table A.

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Table A

GROUP	EXTENT OF TRAINING
Plant Staff, Emergency Personnel	Emergency plan training program and appropriate specialized.
Plant Staff (Non-Emergency), Contractors	Emergency plan training is part of General Employee Training Program.
Visitors, Vendors	An evacuation response leaflet is issued upon arrival at the site.
Construction Workers	A Health Physics Information Sheet (HPIS) will be periodically distributed to provide evacuation response instructions. In addition, a method of reporting suspected missing persons will be provided.

- 6.3.3 Once an evacuation has been declared, supervisory personnel are to ensure that no one remains in their immediate area prior to their leaving that area. In addition, the Security Section should make cursory searches of the protected area (Administration Building, construction buildings area, and other MP&L property, etc.).

PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-17  
Revision 1  
Date: 3-13-82

EMERGENCY PLAN PROCEDURE  
EMERGENCY PERSONNEL DOSIMETRY ISSUE  
SAFETY RELATED

Prepared: John Vucelli RR Woods 2-22-82  
Reviewed: Ch. Stewart Pl. Mgr. Nuclear Support. Mgr. Plt. Quality Supt.  
PSRC: Ch. Stewart 3/5/82  
Approved: C.K.M.G. 3/8/82  
Plant Manager

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1



Title: Emergency Personnel Dosimetry Issue	No.: 10-S-01-17	Revision: 1	Page: 1
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## 1.0 PURPOSE

- 1.1 The purpose of this procedure is to provide guidelines for the issuance of TLD's and/or pocket dosimeters on site during emergency conditions, the reading of pocket dosimeters and TLD's following use, and the proper documentation of all necessary exposure information.

## 2.0 RESPONSIBILITIES

- 2.1 The Site Access Point Coordinator ensures that dosimetry is provided to all personnel entering the site, TLD's and pocket dosimeters are returned and properly read, and all necessary exposure information for the site is properly documented.
- 2.2 The Operations Support Center Coordinator will assure personnel under his direction are properly monitored per this procedure.
- 2.3 The Control Room Shift Supervisor or Shift Superintendent shall insure all Control Room personnel obtain the necessary dosimetry equipment.
- 2.4 The Emergency Director shall insure all personnel at the Technical Support Center (TSC) obtain the necessary dosimetry equipment. The Radiation Protection Manager assumes this responsibility upon arrival at the TSC.

## 3.0 REFERENCES

- 3.1 Radiation Protection Procedure 08-S-01-30, Occupational Radiation Exposure Records and Reports
- 3.2 Radiation Protection Instruction 08-S-02-31, Issuance of TLD Badges and Dosimeters
- 3.3 Radiation Protection Instruction 08-S-02-37, Analysis of TLD's

## 4.0 ATTACHMENTS

- 4.1 Attachment I - Recommended Dosimetry Contents for Emergency Kits

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## 5.0 DEFINITIONS

5.1 SAP - Site Access Point

5.2 TSC - Technical Support Center

5.3 OSC - Operational Support Center

5.4 Emergency Dosimeter Set - A set of pocket dosimeters consisting of at least a 0-200 mR or 0-500 mR, 0-2 R or 0-5 R, and a 0-100 R or 0-200 R dosimeter.

5.5 High Range Dosimeter - A 0-2R or 0-5R pocket dosimeter.

## 6.0 DETAILS

### 6.1 Control Room

6.1.1 The Shift Supervisor/Superintendent shall instruct Control Room personnel to obtain the necessary dosimetry from the Control Room emergency kit when the Emergency Director deems necessary. Each individual shall obtain an emergency dosimeter set.

### 6.2 Technical Support Center (TSC)

6.2.1 The Emergency Director shall insure that any personnel leaving the TSC for emergency actions have obtained a 0-200 R pocket dosimeter.

6.2.2 The Radiation Protection Manager assumes the responsibility from the Emergency Director upon his arrival.

### 6.3 Operational Support Center (OSC)

6.3.1 The Operational Support Center Coordinator, through the Health Physics Coordinator, should issue dosimetry equipment to all personnel at the OSC.

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- 6.3.2 Plant personnel located at the Operational Support Center should have a 0-200 mR pocket dosimeter, a high range pocket dosimeter, and a TLD.
- 6.3.3 Personnel on the following emergency teams shall have a TLD and a high range pocket dosimeter and should have a 0-100 R or 0-200 R dosimeter:
- a. Emergency Repair Teams
  - b. Onsite Monitoring Teams
  - c. Fire Brigade
  - d. First Aid Teams
  - e. Search and Rescue Teams
  - f. Reentry and Recovery Team

#### 6.4 Site Access Point (SAP)

- 6.4.1 The SAP Coordinator is to designate a Health Physicist who shall be responsible for the issuance of dosimetry equipment to all personnel who must come to the site.
- 6.4.2 The following guidelines should be followed for the issuance of all emergency dosimetry equipment:
- a. Complete a TLD Badge Issuance Form.
  - b. Obtain the previous exposure records (when possible) of personnel who will be issued emergency dosimetry equipment.
  - c. Instruct personnel to return emergency dosimetry to the OSC after completing their task.
  - d. All personnel should be issued a high range pocket dosimeter and a TLD. Any person reporting to an emergency team should be issued a 0-100 R or 0-200 R dosimeter.

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e. All TLD analyses shall be performed in accordance with Reference 3.3.

6.4.3 Personnel who have permanently assigned TLD's should be issued their permanent dosimetry when possible.

6.5 Emergency Offsite Assistance (i.e., Claiborne County Fire Department, Ambulance, etc.)

Personnel will normally be issued an emergency dosimetry kit by Security personnel at the Gatehouse. Emergency dosimetry kits will be issued at the Site Access Point when the Gatehouse equipment and personnel are moved to this location.



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RECOMMENDED DOSIMETRY CONTENTS FOR EMERGENCY KITSSite Access Point

1. TLD's (50)
2. Low Range Dosimeters (70)
3. High Range Dosimeters (70)
4. 0-100 R or 0-200 R Dosimeters (50)
5. Dosimeter Charger (2)
6. "D" Cell Batteries (2)
7. TLD Badge Issuance Forms (50)
8. Dosimeter Charging Sheets (5)

Operational Support Center

1. Dosimeter Charger (1)
2. "D" Cell Batteries (2)
3. 0-100 R or 0-200 R Dosimeters (70)
4. High Range Dosimeters (70)
5. Dosimeter Charging Sheets (5)

Technical Support Center

1. 0-100 R or 0-200 R Dosimeters (5)
2. Dosimeter Charger (1)
3. "D" Cell Batteries (2)
4. High Range Dosimeters (5)
5. Dosimeter Charging Sheets (5)

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RECOMMENDED DOSIMETRY CONTENTS FOR EMERGENCY KITS

Control Room

1. 0-100 R or 0-200 R Dosimeters (10)
2. Dosimeter Charger (1)
3. "D" Cell Batteries (2)
4. High Range Dosimeters (10)
5. Dosimeter Charging Sheets (5)

PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-18  
Revision 0  
Date: 8/14/81

EMERGENCY PLAN PROCEDURE  
PERSONNEL SEARCH AND RESCUE  
SAFETY RELATED

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Reviewed: L.H. Stewart / 1/12/81 / 18th Day FOR  
Asst. Plt. Mgr. Nuclear Support. Mgr. Plt. Quality Supt.  
PSRC: L.H. Stewart  
Approved: L.H. Stewart / CK McCay  
Plant Manager

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Title: Personnel Search and Rescue	No.: 10-S-01-18	Revision: 0	Page: 1
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## 1.0 PURPOSE

- 1.1 To provide guidelines for search and rescue of missing personnel during a declared emergency.

## 2.0 RESPONSIBILITIES

- 2.1 The Emergency Director will notify the Operations Support Center Coordinator in the event there are personnel unaccounted for during an emergency.
- 2.2 The Operations Support Center Coordinator is responsible for assembling and coordinating the search and rescue team(s) and reporting all search and rescue results to the Emergency Director. (During Unusual Event, the Health Physics Supervisor or designated alternate is responsible for dispatching search and rescue personnel.)

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

- 5.1 OSC - Operations Support Center

## 6.0 DETAILS

### NOTE

The Health Physics Supervisor or designee will dispatch search and rescue personnel as needed for an Unusual Event.

- 6.1 The OSC Coordinator or his designee will assemble the necessary search and rescue team(s) of at least two persons, preferably three. The team should be composed of at least one Health Physicist and one person qualified in first aid. Team members should be familiar with the plant.
- 6.2 The most qualified person should be assigned as the team leader. The search and rescue team leader is in charge of the team while conducting search and rescue operations to secure missing persons and render necessary aid.

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- 6.3 The team Health Physicist shall have the authority to control the team based upon his assessments of radiological conditions.
- 6.3.1 The Search and Rescue Team, along with any associated personnel are authorized to receive emergency doses under two conditions:
- A maximum of 25 rem may be expected to be received while an individual is fulfilling emergency responsibilities. These responsibilities may consist of measures taken to protect plant safety systems or actions required to save a life. The Emergency Director shall authorize this emergency exposure.
  - Life saving actions which may possibly result in doses in excess of 25 rem shall be voluntary in nature and should not exceed 75 rem. The Emergency Director should authorize this exposure.
- 6.4 If conditions are such that an unacceptable hazard is present, the search and rescue team(s) shall be terminated until conditions permit another effort.
- 6.5 Equipment
- 6.5.1 Each Search and Rescue Team Leader will be issued a portable radio in order to maintain communication with the OSC.
- 6.5.2 If normal radiological conditions exist in the area to be searched, the usual dosimetry and protective clothing requirements will remain in effect. In the event that radiological conditions have changed in these areas, an alteration of protective equipment and dosimetry is necessary to meet the conditions. The OSC Coordinator should consult the Health Physics Coordinator as to the nature and extent of protective equipment needed.
- 6.5.3 A first aid kit and stretcher should be available to each search and rescue team. The first aid equipment from the OSC should be transported with the team if it is not available at a location near the search area.
- 6.6 When the accountability system discovers persons missing or unaccounted for, the following information should be provided to the OSC Coordinator and the Search and Rescue Team(s):

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- 6.6.1 Number of missing individuals
  - 6.6.2 Identification of missing individuals
  - 6.6.3 Last known location
  - 6.6.4 Plant conditions that may affect the rescue
  - 6.6.5 Any complicating factors that may affect the search and rescue effort
- 6.7 An attempt to page the missing person(s) should be made before dispatch of the search and rescue team(s).
- 6.8 The OSC Coordinator will assure that the search and rescue teams are properly assembled, equipped and instructed.
- 6.9 The team(s) shall proceed to the last known location of the missing individual(s) and expand into the adjacent areas as necessary. Maintenance of communications with the OSC Coordinator or his designee during the search is necessary for the transfer of directions and other pertinent information.
- 6.9.1 The search and rescue team should not separate without the direct permission of the team leader.
  - 6.9.2 Once the individual has been located, the team leader should notify the OSC Coordinator of the name, location, and the condition of the individual.
  - 6.9.3 If the individual is ambulatory, administer any necessary first aid and escort the individual to the OSC as soon as possible for evaluation.
  - 6.9.4 An injured and/or contaminated individual is to be administered the necessary first aid and transported to a safe area or the First Aid Station in accordance with Emergency Plan Procedure 10-S-01-19, Personnel Injuries.
- 6.10 Any complicating conditions barring the search and rescue team from removing an injured person shall be reported to the OSC Coordinator. These conditions may be fire, very high radiation levels, steam or hot

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water, individual trapped by debris, etc. The OSC Coordinator will then take appropriate actions necessary to ensure rescue of the individual.

- 6.11 After successful recovery of missing personnel, the search and rescue team will return to the OSC.

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Section 01

10-S-01-19  
Revision 2  
Date: 4/27/82

EMERGENCY PLAN PROCEDURE

PERSONNEL INJURY

SAFETY RELATED

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## 1.0 PURPOSE

- 1.1 To provide guidance for the management of internally or externally over-exposed individuals, injured individuals, and injuries complicated with contamination and radiation exposures once an emergency condition has been declared.

## 2.0 RESPONSIBILITIES

- 2.1 Any individual happening upon an accident shall report it to the Control Room immediately.
- 2.2 During Alert, Site, and General Emergency classes, the Emergency Director will notify the Operational Support Center Coordinator of reported injuries. The Operational Support Center Coordinator is responsible for implementation and coordination of this procedure.
- 2.3 While the plant is under normal operating conditions or an Unusual Event emergency class, the Health Physics Supervisor or Senior Health Physicist is responsible for implementation and coordination of this procedure. He will be notified of any injury by the Shift Supervisor from the Control Room.
- 2.4 The Shift Security Supervisor or equally qualified person is responsible for ensuring the responding ambulance and crew receive dosimetry and ambulance kit and are directed to the location designated by the Operations Support Center Coordinator or Health Physics Supervisor to pick up the patient.
- 2.5 The Radiation Protection Manager is responsible for ensuring a follow-up evaluation is made on the injured individual and appropriate accounts of the accident and radiological assessments are included in the individual's medical record.

## 3.0 REFERENCES

- 3.1 NCRP Report No. 65, Management of Persons Accidentally Contaminated with Radionuclides.

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- 3.2 Security Section Procedure 11-S-11-2, Vehicle Control
- 3.3 Security Section Procedure 11-S-10-1, Personnel Key Card Issuance and Access Control and Authorization

#### 4.0 ATTACHMENTS

- 4.1 Attachment I - Accident Report
- 4.2 Attachment II - Ambulance and hospital notification checklist

#### 5.0 DEFINITIONS

- 5.1 Ambulance Kit - Package maintained in the Guardhouse at the plant access point. Kit includes dosimetry, protective clothing, potassium iodide tablets, and other contamination control equipment to protect the ambulance personnel and vehicle.

#### 6.0 DETAILS

- 6.1 The First Aid Team(s) will consist of at least two individuals. The assigned team should consist of at least one qualified Health Physicist and one person qualified in first aid.

#### NOTE

In some instances, a Search and Rescue Team may be equipped to additionally fulfill the responsibilities of a First Aid Team.

- 6.2 Protective clothing, dosimetry, monitoring devices, etc. will be utilized by the First Aid Team(s) as appropriate.
- 6.3 The First Aid Team(s) will respond to the accident scene with a Portable First Aid Kit. A stretcher must also be available in the vicinity of the accident area or transported with the team.
- 6.4 Constant communication should be maintained between the First Aid Team(s) and their dispatching agency through the use of portable radios. Any information concerning conditions or complications surrounding the accident will be relayed as soon as possible. Back-up assistance can be requested along with any needed equipment.

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## 6.5 Initial Situation Assessment

- 6.5.1 As the First Aid Team arrives at the accident scene, the Health Physicist will be assessing the radiological conditions and directing the team accordingly. If high radiation levels are encountered, the Emergency Director should authorize appropriate emergency lifesaving doses up to 75 rem for members of the team volunteering to remove the injured individual. During the rescue maneuver and first aid administration, it is the Health Physicists' responsibility to take all reasonable measures to minimize the team exposure.
- 6.5.2 The presence of other adverse conditions that may hinder or prevent rescue such as fire, steam, debris, electrical hazards, etc. may necessitate requests for backup assistance. Assistance in the form of the Fire Brigade, manpower, extrication equipment, additional first aid equipment, shielding, etc. will be dispatched from the OSC as appropriate.
- 6.5.3 The situation could entail an obvious need for hospitalization; in such cases notification of the ambulance service and hospital will be initiated immediately.

### NOTE

External exposure to radiation or external and internal contamination of personnel by radioactive materials, with rare exceptions, do not constitute a medical emergency. The medical status of an individual takes precedence over the contamination and exposure status. Primary attention should always be directed to traumatic life threatening injuries, e.g., airway obstruction, severe bleeding, etc. However good hygiene and common sense require that whenever possible, external and internal contamination be removed promptly to diminish the level of contamination or eliminate it.

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## 6.6. Minor Injuries

6.6.1 The First Aid Team should classify the accident situation according to its severity. An individual that has not lost consciousness and has superficial versus life threatening injuries can be treated as a minor injury condition. Hospitalization usually will not be needed in these cases. The First Aid Team should perform the actions listed below as appropriate:

- a. Provide immediate first aid for any injury demanding it. Injuries of lesser consequence can wait until an initial contamination survey has been completed.
- b. Remove the individual to an area of lesser contamination.
- c. Obtain individuals dosimetry and have processed as soon as possible.
- d. Survey individual for surface contamination. With high contamination levels, a smear sample should be taken for later isotopic analysis to aid in any dose determinations.
- e. Remove contaminated clothing as long as it will not aggravate the individual's condition and replace with clean coveralls or wrap with blanket.
- f. When possible, notify the OSC Coordinator or Health Physics Supervisor of accident situation including the following information; name(s) of individual, extent of injuries, and degree of contamination, if present.
- g. Escort patient to First Aid Station or Operational Support Center and commence decontamination in accordance with Radiation Protection Procedure 08-S-02-22, Personnel Decontamination. Ensure nasal swabs are taken, if required.

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- h. Cover wounds with sterile dressings before and after decontamination efforts.
- i. After the patient has been stabilized and decontaminated to the fullest extent possible, transport to the hospital should be arranged if the injuries require medical treatment beyond normal first aid. Refer to section 6.10 for the means by which to transfer the individual to the hospital.
- j. Ensure that the accident scene is secured and appropriate measures are taken to return the area to its normal condition.
- k. Documentation of the incident shall be completed, reviewed and disseminated as appropriate. Attachment I contains provisions and guidance for an adequate description of the circumstances associated with the accident.

## 6.7 Severe Injuries

- 6.7.1 The First Aid Team will ascertain the injured individual's condition. Unconsciousness, respiratory problems, broken bones and other life-threatening injuries are cause for immediate notification of the ambulance service and the hospital. The First Aid Team should perform the following as appropriate:
  - a. Administer first aid necessary to sustain life and stabilize the injured individual.
  - b. If radiological or other physical hazards are life threatening, move the individual to a safer place. Particular attention must be paid to neck and back injuries during this movement.
  - c. Make notifications of the individual's name, extent of injury and contamination and its associated levels, and request ambulance. This information will be relayed to the Control Room who will notify the ambulance and hospital. The Control

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Room will fill out the Ambulance and Hospital Notification Form (similar to Attachment II). The Control Room should call the onsite ambulance at \_\_\_\_\_ and report a Code 3 Emergency and give location of injured person. If the onsite ambulance is not available, then call Claiborne County Ambulance Service at \_\_\_\_\_. The Claiborne County Ambulance Service will normally call back to verify the emergency prior to sending the ambulance.

- d. Collect all dosimetry from the individual and have them sent for immediate processing.
- e. In the case of severe trauma, contamination is of secondary concern unless its magnitude could be of significant consequence. If such is the case, contaminated clothing, etc. may be removed or cut away and other decontamination measures taken while waiting for the ambulance.
- f. Save all clothing and other articles removed from the individual in case the contamination still present on it is needed for radiation spectrum analysis, particle size analysis, etc.
- g. During movement of the patient to the ambulance transfer location, a clean transfer should be arranged for. This is accomplished by establishing a boundary at the most suitable location between the injury scene and the transfer location. The area between the boundary and ambulance transfer location should be free of contamination. Additional personnel will be assembled to accept the injured individual on the clean side of the boundary. A blanket should be laid on the clean side adjacent to the boundary. The First Aid Team on the contaminated side of the boundary should place the stretcher on the blanket without stepping over the boundary. The blanket then can be wrapped around the stretcher and injured individual without covering the face and be secured by the personnel on the clean side of the boundary. Appropriate action should be taken if the stretcher handles are suspected of being contaminated.
- h. The patient should be placed in the ambulance and accompanied by a Health Physicist.

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- i. Ensure that the accident area is secured and appropriate measures taken to return the involved area to normal conditions.
- j. Documentation of the accident must be compiled and reported to the appropriate individuals, e.g., Radiation Protection Manager, medical personnel, etc. Attachment I may be used to document the incident in conjunction with any supplemental information.

## 6.8 Overexposure to Penetrating Radiation

6.8.1 External overexposures may be concurrent with injury and contamination. Care for external overexposures consists of keeping the individual comfortable and observing symptoms to help determine the clinical course of events. Injury and decontamination care shall take priority over attention directed toward the overexposure. After the recovery and stabilization of an overexposed individual, the following should be performed as appropriate:

- a. Collect all dosimetry and have processed.
- b. Assist a Senior Health Physicist in assembling all information pertinent to the reconstruction of the accident. Interview the involved individual(s) and his associates to establish the history of the incident, i.e., location of individual, his actions, length of time individual in accident environment, etc.
- c. Supplement dosimetry results with information from area monitors, dose rate surveys, etc.
- d. Record all symptoms exhibited by the individual.
- e. Save all biological excretions and other samples in case they are needed for later evaluation. In the case of a possible neutron exposure, collect jewelry, button, etc. for neutrons activation analysis.

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- f. Transfer individual to the hospital in accordance with section 6.10 of this procedure.
- 6.8.2 The Senior Health Physicist investigating the overexposure will notify the physician managing the case as soon as an estimated exposure has been calculated from the information gathered from the incident.
- 6.8.3 Radiation Management Corporation may be consulted at any point during the investigation to assist in managing the overexposed individual.
- 6.9 Internal Overexposure
- 6.9.1 The nature of an internal overexposure depends on the radionuclide involved. The course of patient management is also based upon the internally contaminating radionuclide. Excessive body burdens of radionuclides require detection and initial treatment as soon as possible. The following steps can provide guidance in gathering information to assist the Staff Health Physicist in assessing internal dose and the physician in handling the case. Injuries, as usual, take precedence over exposure.
- a. Question the involved individual and his associates to obtain the complete history of the exposure incident.
  - b. Obtain smears, fixed monitor readings, surveys, etc. of the incident area.
  - c. Save individual's clothing for later analysis, if needed.
  - d. Obtain nasal smears.
  - e. Save all biological samples and excreta.



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- f. If a radioiodine overexposure is indicated, administer potassium iodide immediately in accordance with Emergency Plan Procedure 10-S-01-20, Administration of Thyroid Blocking Agents.
- 6.9.2 After external decontamination is complete, whole body counting may be in order. A Senior Health Physicist will essentially be managing the case from this point on.
- 6.9.3 A Health Physicist or equally qualified person will be involved in further investigation and documentation in the case. As pertinent information is assembled, he will inform the physician attending to the patient. Radiation Management Corporation may be consulted at any time throughout the course of the incident.
- 6.10 Transportation to Hospital
- 6.10.1 Transportation may be via company vehicle or ambulance depending upon the patient's condition. A Health Physicist or equally qualified person knowledgeable of the incident should accompany the patient to the hospital if radiologically affected. The Control Room will be notified if the patient is to be transferred by company vehicle and that the hospital should be alerted of an incoming patient.
- NOTE
- Transfer of a contaminated and injured person is to be classified as an Unusual Event.
- 6.10.2 The Control Room will be notified and supplied with information concerning the incident.
- 6.10.3 The Control Room will notify Security of the incoming ambulance and the location where the injured will be transferred to the ambulance. It is the responsibility of the Security Coordinator to ensure that the ambulance crew receives their dosimetry and ambulance kit. Security will escort the ambulance to the patient transfer point in accordance with References 3.2 and 3.3.

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- 6.10.4 After the ambulance arrives at the pick-up point, a Health Physicist will ensure that the ambulance crew is properly wearing their dosimetry and any necessary protective clothing. If the potential for contamination is present, the ambulance floor should be covered with the herculite provided in the ambulance kit.
- 6.10.5 The ambulance personnel may have to enter a controlled area of the plant to help transfer the patient to the ambulance. It is the responsibility of the Health Physicist involved to supervise their conduct during the transfer.
- 6.10.6 A Health Physicist will accompany the ambulance to the hospital advising the ambulance crew on contamination control measures. The ambulance should maintain contact with the hospital during transit to alert the awaiting medical personnel of the patient's status and any changes that may occur.
- 6.10.7 Once at the hospital the Health Physicist will ensure that the ambulance parks in the appropriate area near the Radiation Emergency Area and that the area is roped off. If there is no contamination involved, the normal emergency entrance should be used and roping off is not needed. The Health Physicist will inform the physician in charge of all presently available information concerning the accident and contamination hazards.
- 6.10.8 The ambulance personnel will have their dosimetry collected and logged on the appropriate form maintained by the medical personnel at the hospital. They will be supervised in removing any protective clothing, be surveyed, and decontaminated if necessary. The ambulance will also be surveyed before release. If decontamination is necessary the ambulance will return to GGNS under the supervision of a Health Physicist and be decontaminated. Decontamination of the ambulance will be postponed if it must return for other injured personnel.

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ACCIDENT REPORT

DATE \_\_\_\_\_

The nature of this report is to document the circumstances of an accident. Listed below are items that may assist in reconstructing the incident. Be as specific as possible and use as many pages as needed. Attach Personnel Contamination Report if appropriate.

NAME \_\_\_\_\_

BADGE NO. \_\_\_\_\_

## RECORD THE FOLLOWING INFORMATION

When did accident occur?

What was source of accident?

Plant conditions at time of accident.

Obtain history and sequence of events of accident from individuals involved in or near the accident. Record activities of the individual, e.g., what was he doing, location, exit path, symptoms, how long was individual in accident environment, etc.

Description of injuries and first aid response.

Radionuclides involved - possible exposure pathways.

Radioactivity measurements made at site of accident, e.g., air monitor, smears, fixed radiation monitors, skin contamination levels, etc.

Chemistry of compounds containing radioactivity, e.g., soluble, insoluble, toxic, corrosive, particle sizes, etc.

Bioassay performed, whole body counts, etc.

Names and phone numbers of people from whom additional information can be obtained at a later date.

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Attachment II

Page 1 of 1

AMBULANCE AND HOSPITAL NOTIFICATION CHECKLIST

On-Site Ambulance Phone Number

Report Code 3 Emergency Location \_\_\_\_\_

Number of People \_\_\_\_\_

Extent of Injuries \_\_\_\_\_

Contamination Involved \_\_\_\_\_

Claiborne County Hospital Phone Number

Time of Notification \_\_\_\_\_

Number of Patients \_\_\_\_\_

Extent of Injuries \_\_\_\_\_

Contamination levels of patients \_\_\_\_\_

Report to South Gate

Vicksburg Medical Center Phone Number

Time of Notification \_\_\_\_\_

Number of Patients \_\_\_\_\_

Extent of Injuries \_\_\_\_\_

Contamination of Patients \_\_\_\_\_

Report to South Gate

Volume 10  
Section 01

10-S-01-20  
Revision 2  
Date: 4-1-82

EMERGENCY PLAN PROCEDURE

ADMINISTRATION OF THYROID BLOCKING AGENTS

SAFETY RELATED

Prepared: John Vucelli R.R. Woods 3/24/82  
Reviewed: L.P. Stuart Paul Johnson Curtley Hays  
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PSRC: Paul Johnson 3/25/82  
Approved: C. R. M. Gay 3/31/82  
Plant Manager

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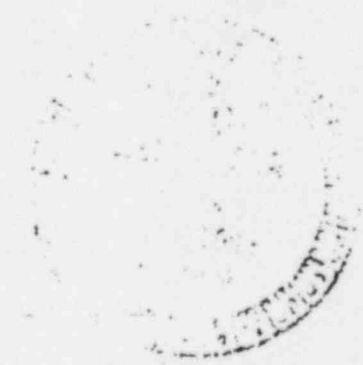
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## 1.0 PURPOSE

1.1 To provide guidance on the use of potassium iodide as a thyroid blocking agent in order to prevent the accumulation of radioiodines in the thyroid gland and the subsequent dose.

## 2.0 RESPONSIBILITIES

2.1 During situations allowing for planned exposures to radioiodines, the Emergency Director will authorize the administration of potassium iodide. The Radiation Protection Manager should be consulted as to the efficiency of potassium iodide administration in connection to the emergency conditions.

## 3.0 REFERENCES

3.1 NCRP Report No. 55, Protection of the Thyroid Gland in the Event of Releases of Radioiodine

3.2 Federal Register 12-15-79, Part VII, HEW, FDA; Potassium Iodide as a Thyroid Blocking Agent in a Radiation Emergency

## 4.0 ATTACHMENTS

Attachment I - Thyroid Blocking Agent Instruction Sheet

## 5.0 DEFINITIONS

5.1 KI - Potassium iodide

## 6.0 DETAILS

6.1 When radioiodines are inhaled or ingested they rapidly accumulate in the thyroid gland. Stable iodide in the form of potassium iodide may be used to block deposition of radioiodines in the thyroid. This blocking effect is primarily due to the ability of KI to saturate the iodide transport system. Blocks of radioiodine deposition of 90 percent or greater are possible by the oral administration of 130 mg of KI just before or at the time of exposure. A substantial block of 50 percent is attainable by KI administration 3 to 4 hours after exposure and limited benefit 12 hours after exposure. Daily administration of 130 mg KI should be continued for seven to ten days to prevent recycling of the radioiodine to the thyroid.

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## 6.2 Storage Locations

6.2.1 Potassium iodide in 130 mg tablets must be stored in sufficient quantity at each of the locations listed below:

- a. Control Room
- b. Technical Support Center
- c. Operations Support Center
- d. First Aid Room at the 93' Elevation
- e. Emergency Operations Facility

Additional stores of KI tablets will be maintained along with the emergency equipment and supplies utilized by the various emergency teams (e.g., First Aid Team, Search and Rescue Team, etc.).

6.2.2 All stores of KI must be replaced with fresh supplies before the expiration date label on the KI containers. Expired KI stores must be returned to the prescribing physician.

## 6.3 Iodine Sensitivity Detection

6.3.1 Personnel must be evaluated as to their sensitivity to iodine prior to any administration of KI. A medical questionnaire addressing iodine sensitivity similar to form HP-1082 will be completed and signed by all plant personnel. These questionnaires must be screened by qualified medical personnel for any indication that an iodine reaction might result from KI administration.

6.3.2 A roster of plant personnel authorized to use KI as a blocking agent will be maintained with all stores of KI tablets.

## 6.4 Dose Administration

6.4.1 Potassium iodide should be administered to plant personnel if the projected total dose commitment to the thyroid is expected to exceed 0.6 rem due to radioiodine concentrations in breathing air (equivalent to 40 MPC hours from I-131). Individuals will not be routinely exposed to greater than 40 MPC/hour equivalent dose

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in any seven consecutive days whenever practical. This guideline will be exceeded only during unusual emergency conditions where quick response is essential or protective response is impossible based on current circumstances.

- 6.4.2 During an accident or emergency situation where radioiodine levels are high and an exposure to the thyroid in excess of 0.6 rem is a reasonable possibility, potassium iodide may be administered upon approval of the Emergency Director by recommendation of the Radiation Protection Manager.
- 6.4.3 The Emergency Director must designate personnel who may distribute the potassium iodide as prescribed (i.e., emergency facility coordinators, supervisors, team leaders, etc.).
- 6.4.4 The designated individual who is to distribute the KI must perform the following:
- Ensure individuals who are to take KI are authorized to do so (section 6.3.2).
  - Record names of the individuals who are to take the KI. Submit this list to the Emergency Director as soon as possible.
  - A Thyroid Blocking Agent Instruction Sheet (Attachment I), available with the KI stores, should be distributed to all individuals who are to take the drug.

#### 6.5 Thyroid Exposure Calculation

- 6.5.1 A conservative projected thyroid dose may be calculated based upon the following formula:

$$\text{Thyroid Dose (rem)} = 1.66 \times 10^6 (\text{hrs})(\text{uCi/cc})$$

Where: hrs = Time individual is in radioiodine  
uCi/cc = Airborne concentration of radioiodine



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Example:

$$\begin{aligned}\text{Thyroid dose (rem)} &= 1.66 \times 10^6(40 \text{ hr})(9 \times 10^{-9} \text{ uCi/cc}) \\ &= 0.6 \text{ rem to thyroid}\end{aligned}$$

- 6.6 Administration of KI to plant personnel should be noted in the Emergency Director's log. In addition, the prescribing physician should be notified as soon as possible at the following phone numbers:

Anton Vroon, M.D.  
Office -  
Home -

## 7.0 ATTACHMENTS

- 7.1 Attachment I - Thyroid Blocking Agent Instruction Sheet

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THYROID BLOCKING AGENT INSTRUCTION SHEET

Patient Package Insert For

**THYRO-BLOCK™**

(POTASSIUM IODIDE)  
(pronounced poe-TASS-e-um EYE-oh-dyed)  
(abbreviated: KI)  
TABLETS and SOLUTION U.S.P.

TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU.

IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. **DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODIDE.** (SEE SIDE EFFECTS BELOW.)

**INDICATIONS**

THYROID BLOCKING IN A RADIATION EMERGENCY ONLY.

**DIRECTIONS FOR USE**

Use only as directed by State or local public health authorities in the event of a radiation emergency.

**DOSE**

Tablets: **ADULTS AND CHILDREN 1 YEAR OF AGE OR OLDER:** One (1) tablet once a day. Crush for small children.  
**BABIES UNDER 1 YEAR OF AGE:** One-half (1/2) tablet once a day. Crush first.

Solution: **ADULTS AND CHILDREN 1 YEAR OF AGE OR OLDER:** Add 6 drops to one-half glass of liquid and drink each day.  
**BABIES UNDER 1 YEAR OF AGE:** Add 3 drops to a small amount of liquid once a day.

For all dosage forms: Take for 10 days unless directed otherwise by State or local public health authorities.

Store at controlled room temperature between 15° and 30°C (59° to 86°F). Keep container tightly closed and protect from light. Do not use the solution if it appears brownish in the nozzle of the bottle.

**WARNING**

Potassium iodide should not be used by people allergic to iodide. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or the public health authority.

**DESCRIPTION**

Each THYRO-BLOCK™ TABLET contains 130 mg of potassium iodide.

**HOW POTASSIUM IODIDE WORKS**

Certain forms of iodine help your thyroid gland work right. Most people get the iodine they need from foods, like iodized salt or fish. The thyroid can "store" or hold only a certain amount of iodine.

In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.

If you take potassium iodide, it will fill-up your thyroid gland. This reduces the chance that harmful radioactive iodine will enter the thyroid gland.

**WHO SHOULD NOT TAKE POTASSIUM IODIDE**

The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.

**HOW AND WHEN TO TAKE POTASSIUM IODIDE**

Potassium Iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.

**SIDE EFFECTS**

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

**WHAT TO DO IF SIDE EFFECTS OCCUR**

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

**HOW SUPPLIED**

THYRO-BLOCK™ TABLETS (Potassium Iodide, U.S.P.) bottles of 14 tablets (NDC 0037-0472-20). Each white, round, scored tablet contains 130 mg potassium iodide.

THYRO-BLOCK™ SOLUTION (Potassium Iodide Solution, U.S.P.) 30 ml (1 fl. oz.) light-resistant, measured-drop dispensing units (NDC 0037-4287-25). Each drop contains 21 mg potassium iodide.

WALLACE LABORATORIES  
Division of  
CARTER-WALLACE, INC.  
Cranbury, New Jersey 08512

Volume 10

10-S-01-21

Section 01

Revision 2

Date: 7-1-82

EMERGENCY PLAN PROCEDURE  
EVACUATING PERSONNEL AND VEHICLE  
CONTAMINATION CONTROL  
SAFETY RELATED

Prepared: CSL, RRW 6-21-82  
Reviewed: R. H. ... | D. ... | Curtis Hayes  
Asst. Plt. Manager | Nuclear Support Mgr. | Plt. Quality Supt.  
PSRC: R. H. ... 6/29/82  
Approved: C. M. G. 6/30/82  
Plant Manager

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1	None
2	None

Title: Evacuating Personnel and Vehicle Contamination Control	No.: 10-S-01-21	Revision: 2	Page: 1
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## 1.0 PURPOSE

- 1.1 To delineate contamination control measures for personnel and vehicles departing the restricted area during an emergency situation.

## 2.0 RESPONSIBILITIES

- 2.1 It is the responsibility of the Emergency Director to activate the Site Access Point (SAP) in response to site and general emergency classes. Activation of the Site Access Point (SAP) during Unusual Event and Alert emergency classes is left to the Emergency Director's discretion.
- 2.2 The SAP Coordinator should ensure that exiting non-emergency personnel and vehicles are surveyed and decontaminated as appropriate for the existing plant and radiological conditions.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

- 5.1 SAP - Site Access Point.

## 6.0 DETAILS

- 6.1 A site or general emergency may require evacuation of onsite non-emergency personnel. The evacuation will be in accordance with Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel.

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6.2 The Site Access Point is the normal assembly point for decontamination of evacuating personnel and vehicles. The Site Access Point may also be used if the normal plant decontamination facilities are not available.

### 6.3 Personnel Survey and Decontamination

6.3.1 All personnel are considered to be contaminated if found to have contamination greater than 100 cpm/scan above background levels for beta-gamma, and 50 cpm/scan above background for alpha.

6.3.2 Personnel decontamination should be performed in accordance with Radiation Protection Instruction 08-S-02-22, Personnel Decontamination.

6.3.3 Any decontamination that requires other than soap and water for cleaning should be done under the direction of a Health Physicist.

6.3.4 Any decontamination that involves internal contamination (absorption through wounds, ingestion, etc.) should be done under the supervision of qualified medical personnel.

### 6.4 Vehicle Survey and Decontamination

6.4.1 A vehicle survey and decontamination area should be established adjacent to the Site Access Point in the event that a radiological release has occurred with the possibility of contaminating vehicles. The decontamination area should be situated such that run-off waste water produced by vehicle decontamination will not spread to areas of traffic.

#### NOTE

Radiological or plant conditions may preclude the decontamination of personnel and/or vehicles at the SAP. In such cases, personnel and vehicles should be directed to state assembly areas as directed by Local Law Enforcement Agencies (LLEA). The decision to conduct survey and/or decontaminate vehicles will be made by the Site Access Point Coordinator with concurrence of the Radiation Protection Manager.

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6.4.2 If vehicles are found to be contaminated greater than 100 cpm/scan above background, decontamination may be warranted. During an emergency, if the delay due to the decontamination poses an undue risk on evacuating personnel, then the vehicle will not be decontaminated. This decision should be made by the SAP Coordinator with concurrence of the Radiation Protection Manager.

#### 6.5 Equipment, Supplies, and Other Material Survey and Decontamination

6.5.1 To be released for unrestricted use, any equipment, supplies or other material must be less than 200 dpm/100 cm<sup>2</sup> for beta-gamma and 50 dpm/100 cm<sup>2</sup> for alpha.

6.5.2 Any articles that are contaminated greater than the limits above must be contained and tagged to identify it as contaminated.

6.5.3 Decontamination of equipment, supplies and other material will be at the discretion of the Health Physicist in charge using standard Health Physics methods and techniques. In cases where decontamination is not feasible or too costly, consideration will be given to discarding the item as radioactive waste.

#### 6.6 Survey Data Sheets

6.6.1 All survey data sheets generated during an emergency will be delivered to the Health Physics Coordinator, the Site Access Point Coordinator, or the Radiation Emergency Manager, as appropriate.

6.6.2 The final disposition of data sheets generated during an emergency will be in accordance with Radiation Protection Procedure 08-S-01-11, Health Physics Document Control and Handling.

Volume 10

10-S-01-22

Section 01

Revision 0

Date: 8/14/81

EMERGENCY PLAN PROCEDURE

REENTRY AND RECOVERY

SAFETY RELATED

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Plant Manager

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## 1.0 PURPOSE

1.1 If extended actions are necessary to return the plant to its normal operating status, this procedure provides guidance for the following emergency actions:

1.1.1 Reentry into affected areas of the plant

1.1.2 Initial recovery operations prior to establishment of the Long Term Recovery Organization.

## 2.0 RESPONSIBILITIES

2.1 The Emergency Director is responsible for implementing this procedure.

2.2 The Operational Support Center Coordinator is responsible for implementing the guidelines of this procedure in the organization, control and operation of Reentry and Recovery Teams.

2.3 The Health Physics Coordinator shall provide assistance to the Operational Support Center Coordinator in the organization, control and operation of Reentry and Recovery Teams in accordance with approved Health Physics practices.

## 3.0 REFERENCES

3.1 GGNS Emergency Plan, Sections 5.6 and 9.0

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

None

## 6.0 DETAILS

6.1 Implement the guidelines of this procedure if extended actions are necessary to return the plant to its normal operating status and the following recovery phase criteria have been met:

6.1.1 Radiation levels in the affected plant areas are stable or decreasing with time.



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6.1.2 Release of radioactive materials to the environment from the plant are under control or have ceased.

6.1.3 Any fire or similar emergency condition is controlled or has ceased.

## 6.2 Reentry

6.2.1 Reentry procedures will only occur once the immediate corrective and protective actions have established an effective control over the emergency condition.

6.2.2 All reentry procedures shall be planned and deliberate.

6.2.3 Review the following data prior to authorizing reentry by the emergency teams:

- a. Radiation surveillance data to determine plant areas potentially affected by high levels of radiation and contamination
- b. Current radiation exposures of emergency personnel who will participate in the reentry operation
- c. Adequacy of radiation survey instrumentation

6.2.4 Preplan the activities of the Reentry Teams taking the following items into account:

- a. Areas to be surveyed
- b. Anticipated radiation and contamination levels
- c. Radiation survey equipment required
- d. Shielding requirements and availability
- e. Protective clothing and equipment required
- f. Access control procedures
- g. Decontamination requirements

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- h. Communications
  - i. Exposure control limits and personnel dosimetry requirements
- 6.2.5 Designate a Reentry Team which will normally consist of the following personnel:
- a. Operations personnel (1)
  - b. Radiation Protection personnel (1)
  - c. Maintenance personnel (1)
  - d. Plant Engineering personnel (2)

NOTE

Ensure that each member of the team has sufficient exposure remaining to complete the reentry procedures and not exceed the normal GCNS exposure limits.

- 6.2.6 Instruct the members of the Reentry Team to assess the following items in the specified priority:
- a. Determination of initial required recovery operations including assessment of equipment damage.
  - b. Determination of real or potential hazards associated with the required recovery operations.
- 6.2.7 Instruct the members of the team to perform the following actions (if exposure limits allow) after all assessments have been completed:
- a. Conduct comprehensive radiation surveillance of plant facilities and define radiologically hazardous areas.
  - b. Isolate and post areas in the plant with the appropriate signs and barriers.
- 6.2.8 After reentry procedures are completed, assess the data and determine the extent of the required recovery operations.
- 6.3 Designate applicable Recovery Teams to perform the following actions as needed:

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- 6.3.1 Installation of shielding
- 6.3.2 Posting of controlled areas
- 6.3.3 Application of clearance tags
- 6.3.4 Decontamination and clean-up as required to place the plant in an acceptable long term safe condition
- 6.4 Evaluate all the results of the reentry and recovery operations and define the areas that have been affected by the emergency.
- 6.5 Based upon the extent of long term recovery operations required, notify the Emergency Operations Facility Coordinator and make recommendations as to the establishment of the Long Term Recovery Organization.

PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-23  
Revision 2  
Date: 6-28-82

EMERGENCY PLAN PROCEDURE  
EMERGENCY PLAN TRAINING AND DRILLS  
SAFETY RELATED

Prepared: \_\_\_\_\_

*Paul S. [Signature]*

Reviewed: \_\_\_\_\_

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Asst. Plt. Mgr.      Nuclear Support. Mgr.      Plt. Quality Supt.

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Plant Manager

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2	None

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CONCURRENCE: Chemistry/Radiation Control Superintendent RR Weedo

Training Superintendent DLA

Emergency Planning Coordinator NA DLA

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## 1.0 PURPOSE

The purpose of this procedure is to describe the:

- 1.1 Responsibilities of the Site Emergency Planning Coordinator, the Emergency Planning Coordinator, the Training Superintendent, and the Assistant Plant Manager associated with drills and exercises.
- 1.2 Type and frequency of drills and exercises to be conducted.
- 1.3 Procedure to be followed in order to conduct a drill or exercise.
- 1.4 To establish the GGNS emergency response training requirements as they apply to emergency organization personnel, general MP&L employees, contractors, and support agencies.
- 1.5 Method of management review and approval of the drills and exercises specified in this procedure.

## 2.0 RESPONSIBILITIES

- 2.1 The Training Superintendent is responsible for providing and implementing emergency response training for emergency organization and non-emergency personnel.
- 2.2 The Emergency Planning Coordinator is responsible for:
  - 2.2.1 Coordinating MP&L General Office and offsite support agency training with the Training Superintendent.
  - 2.2.2 Scheduling of major drills and exercises, in conjunction with the Site Emergency Planning Coordinator.
- 2.3 The Site Emergency Planning Coordinator, in conjunction with the Training Superintendent and Emergency Planning Coordinator, is responsible for:
  - 2.3.1 The development and preparation of scenarios for drills and exercises. This function will be performed by the Scenario Development Team.

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- 2.3.2 Obtaining management review and approval to conduct a drill or exercise.
  - 2.3.3 Conducting the drill or exercise.
  - 2.3.4 Critiquing the results of the drill or exercise.
  - 2.3.5 Using results from the critique to formulate changes to training, Emergency Plan Procedures, Emergency Plan, equipment, administration, or plant directives, as necessary.
  - 2.3.6 Developing and maintaining of appropriate emergency planning punchlist.
- 2.4 The Assistant Plant Manager has the following responsibilities:
- 2.4.1 Approval of the scheduled date and time of the drill or exercise.
  - 2.4.2 Selection of a manager or superintendent to review and approve the drill or exercise to be conducted.
  - 2.4.3 Selection of members of the Scenario Development Team and observers/controllers to be used for a scheduled drill or exercise.
- 2.5 The Fire and Safety Coordinator, in conjunction with the Site Emergency Planning Coordinator and the Training Superintendent is responsible for ensuring fire brigade drills are performed in accordance with this procedure.

### 3.0 REFERENCES

- 3.1 NUREG - 0654, Rev. 1
- 3.2 GGNS Emergency Plan
- 3.3 Plant Administrative Procedure 01-S-04-21, Emergency Preparedness Training Program

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- 3.4 Plant Administrative Procedure 01-S-04-4, General Employee Training Program
- 3.5 FSAR, Appendix 9B
- 3.6 FSAR, Section 13.3
- 3.7 Plant Administrative Procedure 01-S-04-12, Fire Protection Training Program
- 3.8 Plant Administrative Procedure 01-S-04-14, Training Records

#### 4.0 ATTACHMENTS

- 4.1 Attachment I - Drill/Exercise Scenario
- 4.2 Attachment II - Drill/Exercise Observation Sheet
- 4.3 Attachment III - Drill/Exercise Evaluation Report

#### 5.0 DEFINITIONS

- 5.1 Controller - Observers specified by the Scenario Development Team who provide the input or "cues" intended to trigger actions in a drill or exercise. In the course of most drills, a controller may make immediate corrections of erroneous performance.
- 5.2 Drill - A supervised instruction period aimed at testing, developing and maintaining skills in a particular operation. A drill is often a component of an exercise.
- 5.3 Exercise - A test to demonstrate the effectiveness of the Emergency Plan and the capability of the state and local personnel and resources to adequately respond to an accident. Unless specified otherwise, the general term "drills" will be used in lieu of drills and/or exercises.



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- 5.4 Emergency Response Training - Training provided for both emergency response personnel as well as non-emergency personnel who may be involved in an emergency at GGNS.
- 5.5 Emergency Response Personnel - MP&L personnel who may be expected to participate in a GGNS emergency.
- 5.6 Emergency Preparedness Training (EPT) Program - A two part training program for emergency response personnel.
- 5.7 Emergency Preparedness - The first part of the Emergency Preparedness Training Program.
- 5.8 Specialized Training - The second part of the Emergency Preparedness Training Program.
- 5.9 Site Access Point Coordinator - During a major emergency at GGNS, this person is responsible for screening non-MP&L personnel for access and training requirements prior to access to site.
- 5.10 Practice Sessions - Sessions which provide brigade members with experience in actual fire extinguishment and the use of emergency breathing apparatus under strenuous conditions encountered in fire fighting.

## 6.0 DETAILS

### 6.1 Drills and Exercises

#### 6.1.1 Precautions and Limitations

- a. Announcements over the PA System, notifications of any agencies and radio communications associated with the drill or exercise should be preceded by and terminated with the words, "This is a drill".
- b. If a drill is in progress and a real emergency or casualty situation arises, the drill will be terminated immediately and

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the appropriate announcements will be made stressing that an actual emergency or casualty situation exists.

#### 6.1.2 Communications Drills

- a. Monthly - state and local agencies within the 10 mile plume exposure Emergency Planning Zone (EPZ).
- b. Quarterly - the appropriate federal agencies. In addition, with the state emergency response agencies within the ingestion pathway (50 mile EPZ).

#### 6.1.3 Fire Brigade Drills

- a. Each fire brigade shall be drilled at least semi-annually.
- b. Each fire brigade member should participate in each drill of step 6.1.3a. Each fire brigade member shall participate in two drills per year, as a minimum.
- c. One drill per year for each fire brigade shall be unannounced. Each unannounced drill shall be separated by a minimum of four (4) weeks.
- d. One drill per year will be conducted on a backshift for each fire brigade.
- e. All drills will be preplanned to meet established training objectives and shall be critiqued to determine the effectiveness, in meeting these objectives.
- f. Unannounced drills shall be preplanned and a drill critique shall be held by a board of responsible management personnel.
- g. Performance deficiencies of fire brigades or individual fire brigade members will be corrected by providing additional training for noted weak areas. This training should be completed within 30 days.

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- h. An unsatisfactory drill performance by a fire brigade will be corrected by providing additional training for noted weak areas. A repeat drill will be held within 30 days of the critique.
- i. At least once every three (3) years a randomly selected unannounced drill shall be monitored and critiqued by a group of qualified individuals who are independent of the GGNS staff.
- j. Each fire brigade drill shall be evaluated on the following, as a minimum:
  - (1) Assessment of fire alarm effectiveness.
  - (2) The time required to notify and assemble the fire brigade.
  - (3) The selection, placement, and use of equipment and fire fighting strategies.
  - (4) An assessment of each fire brigade member's knowledge in the firefighting strategy and techniques for the fire area.
  - (5) An assessment of the brigade's conformance to established plant firefighting procedures and use of the firefighting equipment, including self-contained breathing equipment, communication equipment, and ventilation equipment when applicable.
  - (6) Assessment of the fire brigade leader's effectiveness in directing the brigade's activities.

6.1.4 Emergency Repair Team Drill - annually

6.1.5 Medical Emergency Drill - annually

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- 6.1.6 Radiological Monitoring Drill - annually
- 6.1.7 Health Physics Drills - semi-annually
- 6.1.8 Radiation Emergency Exercise - annually
  - a. Scenarios should vary from year to year such that it includes all major elements of the plan in a five year period.
  - b. Once every 6 years, there should be an exercise between 6:00 p.m. and midnight and another between midnight and 6:00 a.m.
  - c. Exercises should be conducted under various weather conditions.
  - d. Some exercises should be unannounced.
- 6.1.9 More information on drills and exercises can be obtained in the GGNS Emergency Plan, Section 8.0.
- 6.1.10 Additional, limited drills may be conducted as desired for the training of individuals in emergency response. These drills will be scheduled, coordinated, and supervised by the Training Section.
- 6.1.11 Conducting Drills and Exercises
  - a. The Emergency Planning Coordinator should determine the scope of the drill or exercise to be held and the date and time on which it is to be conducted well in advance of the planned drill. Coordination with state and local agencies may be necessary.
  - b. The Assistant Plant Manager should:
    - (1) Select a Scenario Development Team based on the recommendations of the Site Emergency Planning

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Coordinator. This team should be composed of the following personnel, as necessary:

- (a) Emergency Planning Coordinator
  - (b) Site Emergency Planning Coordinator
  - (c) Operations Representative
  - (d) Training Representative
  - (e) Health Physics Representative
  - (f) Engineering Representative
  - (g) Fire and Safety Coordinator
  - (h) Others as deemed necessary
- (2) Assign drill observers. Normally, all members of the Scenario Development Team will be observers. Additional observers may be necessary, depending on the scope of the drill.
  - (3) Approve the scheduled date and time of the drill.
  - (4) Select a manager or superintendent to review and approve the drill. Normally, this person is not to be a major participant in the drill.
  - (5) Determine who, if any, will be non-participants in the drill.
- c. The Scenario Development Team is to propose a drill scenario following the guidelines similar to Attachment I. Cue cards are to be developed to trigger actions and to provide simulated information to drill participants. The scenario and cue cards are to be approved by the management representative

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selected by the Assistant Plant Manager (these requirements do not apply to the limited drills specified in step 6.1.2i.).

- d. The Emergency Planning Coordinators will conduct a meeting to brief drill observers on the scenario, including any details or information they are to provide to the drill participants. Discuss expected actions of the participants. Issue Drill/Exercise Observation Sheets (similar to Attachment II).
- e. If required, the Emergency Planning Coordinator will notify offsite agencies of the drill or exercise in advance to confirm their level of participation.
- f. Conduct the drill as scheduled.
- g. At the completion of the drill, announce on the PA System that the drill is terminated.

#### 6.1.12 Critique

The observers are to critique the drill as soon as possible after the termination of the drill. Each observer is to give a brief report of their assigned tasks pointing out any significant deficiencies in procedures, equipment, or training that they observe. Their observation sheets should be turned in to the Site Emergency Planning Coordinator who is to forward the originals to the Emergency Planning Coordinator (a copy is to be retained on site).

#### 6.1.13 Reports and Review

- a. The Site Emergency Planning Coordinator is to complete the Drill/Exercise Evaluation Report (similar to Attachment III). This report should include any recommendations of improvements in procedures, equipment, training or administration. The original of the report is to be submitted to the Plant Manager.

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- b. The Emergency Planning Coordinators are to prepare a punch list correct the major deficiencies observed during the drill. This punch list should also include recommendations from staff personnel who participated in the drill.

#### 6.1.14 Documentation

Scenarios, critiques, and observation sheets shall be retained in accordance with Reference 3.8. An entry will be made in each fire brigade drill participant's training record to reflect participation in the drill in section 6.1.3.

#### 6.2 Emergency Response Training

- 6.2.1 Temporary and permanently assigned employees of GGNS are to receive emergency indoctrination training as part of the General Employee Training Program (Reference 3.4).
- 6.2.2 GGNS emergency response personnel are to receive Radiation Worker II training.
- 6.2.3 MP&L emergency response personnel are to participate in the Emergency Preparedness Training Program (Reference 3.3) and the General Employee Training Program (Reference 3.4).
- 6.2.4 During emergencies and drills when the EOF is activated, non-MP&L augmentation personnel will receive emergency response training as deemed necessary by the Site Access Point Coordinator.

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DRILL/EXERCISE SCENARIO

Drill/Exercise Title: \_\_\_\_\_ Drill Date: \_\_\_\_\_

INTENT OF DRILL OR EXERCISE

NOTE: List here those outstanding procedures, instructions, equipment and communications, including specific actions of personnel or emergency teams that the drill or exercise is to check.

DRILL/EXERCISE SCENARIO

NOTES: (1) Scenario will be sufficiently detailed such that simulated emergency conditions, locations and reports (including values) are described fully enough to enable responsible actions (may be simulated) to be taken.

(2) All scenarios will include the following notes:

NOTE 1: Advise the Shift Supervisor to terminate the drill or exercise if plant operating conditions warrant such an action.

NOTE 2: For all notification to local, state and federal agencies, predetermined statements should be available to prevent confusion.

NOTE 3: Use additional pages as necessary.

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_  
Management Representative

Return completed copy to the Site Emergency Planning Coordinator



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DRILL/EXERCISE OBSERVATION SHEET

Observer's Name: \_\_\_\_\_ Location: \_\_\_\_\_

Drill Title: \_\_\_\_\_

Time/Date Drill Commenced: \_\_\_\_\_ Time/Date Drill Terminated: \_\_\_\_\_

OBSERVATIONS, COMMENTS AND RECOMMENDATIONS page \_\_\_ of \_\_\_

NOTE: Observations should include verification of the proper and effective use of procedures, equipment and personnel.

NOTE: Use additional pages as necessary.

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

Return completed copy to the Site Emergency Planning Coordinator

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DRILL/EXERCISE EVALUATION REPORT

Page \_\_\_ of \_\_\_

Drill/Exercise Title: \_\_\_\_\_ Drill Date \_\_\_\_\_

Evaluated By: \_\_\_\_\_ Date \_\_\_\_\_

COMMENTS AND DEFICIENCIES

RECOMMENDATIONS

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_  
Site Emergency Planning Coord. Plant Manager

PLANT OPERATIONS MANUAL

Volume 10  
Section 01

10-S-01-24

Revision 0

Date: 3-17-82

EMERGENCY PLAN PROCEDURE

MAINTENANCE OF EMERGENCY PREPAREDNESS

SAFETY RELATED

Prepared: John Vincelli R.R. Warden 3/10/82  
Reviewed: Lois L. Stuart Rudolph A. Antonino Ed. Langston  
Asst. Plt. Manager Nuclear Support Mgr. Plt. Quality Supt.  
PSRC: Rudolph A. Antonino 3/12/82  
Approved: C.L. McCoy 3/16/82  
Plant Manager

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List of TCN's Incorporated:

Revision

TCN No.

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### 1.0 PURPOSE

- 1.1 The purpose of this procedure is to maintain an adequate supply of operable emergency equipment.

### 2.0 RESPONSIBILITIES

- 2.1 The Site Emergency Planning Coordinator is responsible for ensuring that emergency equipment is properly maintained and inventoried and for submitting proper reports to the Emergency Planning Coordinator.
- 2.2 Health Physics is responsible for maintaining an inventory of emergency equipment (except fire protection equipment).

#### NOTE

Fire protection equipment will be the responsibility of the Fire and Safety Coordinator.

### 3.0 REFERENCES

None

### 4.0 ATTACHMENTS

None

### 5.0 DEFINITIONS

None

### 6.0 DETAILS

- 6.1 Inventory of emergency equipment is to be recorded on Form HP-1010, Emergency Response Inventory List.
- 6.2 General Guidelines for the Inventory and Inspection of Emergency Equipment

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- 6.2.1 Visually inspect all equipment and replace defective units as necessary.
- 6.2.2 Replace all items which have past due expiration or calibration dates (or will expire prior to the next required inventory).
- 6.2.3 Inventory the emergency equipment locker or kit per the appropriate Form HP-1010 (i.e., SAP, OSC, TSC, etc.). Any discrepancies will be reported in the REMARKS section of Form HP-1010. Discrepancies should be corrected as soon as possible (no later than 96 hours, except when ordering equipment).
- 6.3 Inventories will be performed within  $\pm$  25% of frequency designated, or after use of equipment.
- 6.4 Inventory frequency of emergency equipment is designated in Table A:

Table A

<u>EQUIPMENT</u>	<u>RESPONSIBILITY</u>	<u>FREQUENCY</u>
A) Damage Control Kits	Maintenance	Quarterly
B) Emergency Lockers, Offsite Monitoring Kits, Spill Kits, Ambulance/Fire Kits	Health Physics	Quarterly
1) Respirators		Monthly*
2) Meters		1. Monthly - Source Check and Battery Check

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Table A Cont 'd

<u>EQUIPMENT</u>	<u>RESPONSIBILITY</u>	<u>FREQUENCY</u>
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NOTE

All spare batteries (except rechargeable type) in emergency lockers/kits should be replaced with fresh batteries during the first calendar quarter of each year (normally, prior to the scheduled inventory for that locker/kit).

C) First Aid & Trauma Kits	Health Physics	Quarterly
D) Phone Lists	Perspective Sections (with an update of any changes to the Site Emergency Planning Coordinator.)	Quarterly

\*In accordance with Radiation Protection Procedure 08-S-02-42, Inspection of Respiratory Protective Devices.

- 6.5 A report detailing the following information should be submitted to the Site Emergency Planning Coordinator:
  - 6.5.1 Date inventory completed
  - 6.5.2 Deficiencies noted
  - 6.5.3 Resolution of deficiencies noted

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6.6 The emergency facilities listed below should be inspected by the Site Emergency Planning Coordinator on a quarterly basis (+ 25%). The purpose of this inspection is to ensure each facility is properly equipped and prepared to handle an emergency condition.

6.6.1 TSC, OSC, SAP, Control Room, EOF

6.6.2 Health Physics Laboratory and Decontamination Facility

6.6.3 First Aid Stations

6.6.4 In-Plant Emergency Locations, including Fire Stations

6.6.5 Access Control Building

PLANT OPERATIONS MANUAL

Volume 10

10-S-01-25

Section 01

Revision 2

Date: 3-26-82

EMERGENCY PLAN PROCEDURE

ONSITE PERSONNEL RESPONSE

SAFETY RELATED

Prepared: John Vinelli R.R. Weber 3/15/82

Reviewed: B. G. Stuart / [Signature] / [Signature]  
Asst. Plt. Manager / Nuclear Support Mgr. / Plt. Quality Supt.

PSRC: B. G. Stuart

Approved: [Signature]  
Plant Manager

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Atts. I-II

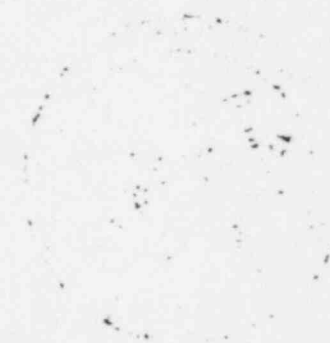
List of TCN's Incorporated:

Revision

TCN No.

1

2





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## 1.0 PURPOSE

For the purpose of emergency planning, onsite personnel are divided into two categories:

- 1.1 Emergency personnel
- 1.2 Non-emergency personnel

In addition, the site is divided into two basic areas:

- 1.3 Protected Area (the area within the Unit 1 security fence)
- 1.4 Non-Protected Area (Administration Building, construction site, other MP&L property outside the protected area)

The purpose of this procedure is to provide instructions for the response of these personnel to an emergency at GGNS.

## 2.0 RESPONSIBILITIES

- 2.1 It is the responsibility of all personnel at GGNS to follow the instructions of this procedure once an emergency condition has been declared at GGNS. This applies to both GGNS staff employees and non-staff personnel (i.e., contractors, visitors, construction workers, etc.).
- 2.2 It is the responsibility of the Training Superintendent to ensure that all onsite personnel are adequately trained to properly respond to an emergency at GGNS in accordance with this procedure.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

- 4.1 Attachment I - Onsite Personnel Response Flowchart

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#### 4.2 Attachment II - OSC Designation Areas for Emergency Personnel

### 5.0 DEFINITIONS

5.1 Emergency Personnel - Personnel qualified as Radiation Worker II or III except Security personnel (or equivalent as determined by the Emergency Director). In addition, these personnel should be qualified to wear respiratory equipment.

5.2 Non-Emergency Personnel - Plant staff personnel not qualified Radiation Worker II or III, visitors, non-emergency related contractors, vendors, construction workers, etc.

5.3 P.A. System - Public Address announcing system for site.

### 6.0 DETAILS

#### 6.1 Non-Emergency Personnel Response

##### 6.1.1 Site Evacuation

Once the site evacuation alarm is sounded, all non-emergency personnel within the protected area of the site shall report to the OSC (Maintenance Shop) for accountability and then exit through the Security Guardhouse and proceed as directed by the PA system. If applicable, an individual's escort is to ensure that the proper evacuation process has been observed. Depending on conditions, personnel will be directed to report to the Site Access Point (SAP), to proceed directly home, or to proceed to another designated point. A specific route may also be specified. Non-emergency personnel not within the protected area of the site (i.e., Administration Building, construction site) will also proceed as directed by the PA system (construction workers will normally leave the site via the Bechtel gate).

#### NOTE

Personnel who may be contaminated should proceed to the Site Access Point (or other designated area) for decontamination and further instructions, as required, before release from the site.

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In addition, if the site evacuation alarm is sounded and no destination point is announced on the P.A. System, all non-emergency personnel on the Unit 1 side of the site are to proceed to the SAP. All non-emergency personnel on the Unit 2 side are to exit via the Bechtel gate.

#### 6.1.2 Limited Evacuation (i.e., section of the plant)

##### a. Non-emergency personnel in the affected (evacuated) area:

Report to the Health Physics Lab on the 93' level of the Control Building for accountability and decontamination as appropriate. Then proceed as directed by Health Physics personnel.

##### b. Non-emergency personnel NOT in the affected (evacuated) area:

Proceed as directed by supervision or by the P.A. System.

#### 6.1.3 Declared Emergency with no Evacuation

Non-emergency personnel shall continue working at their stations unless directed to do otherwise by the P.A. System.

### 6.2 Emergency Personnel Response

#### 6.2.1 Site Evacuation

Once the site evacuation alarm is sounded, all emergency personnel (except Control Room and TSC), report to the OSC for accountability and formation into any necessary emergency response teams (i.e., First Aid Team, Emergency Repair Team, Search and Rescue Team). Then proceed as directed by the OSC Coordinator.

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6.2.2 Limited Evacuation (i.e., section of the plant)

a. Emergency personnel in the affected (evacuated) area:

- (1) Proceed to the Health Physics Lab on the 93' level of the Control Building for accountability and decontamination, if necessary, then report to the OSC (Maintenance Shop) to support emergency response actions.

b. Emergency personnel NOT in the affected (evacuated) area:

- (1) Report to the OSC (Maintenance Shop), as directed by immediate supervisor or by the P.A. System, to support emergency response actions.

NOTE

The immediate supervisor on station should determine the MINIMUM staffing requirements for his station, extra emergency personnel are to report to the OSC.

6.2.3 Declared Emergency with no Evacuation (except Unusual Event)

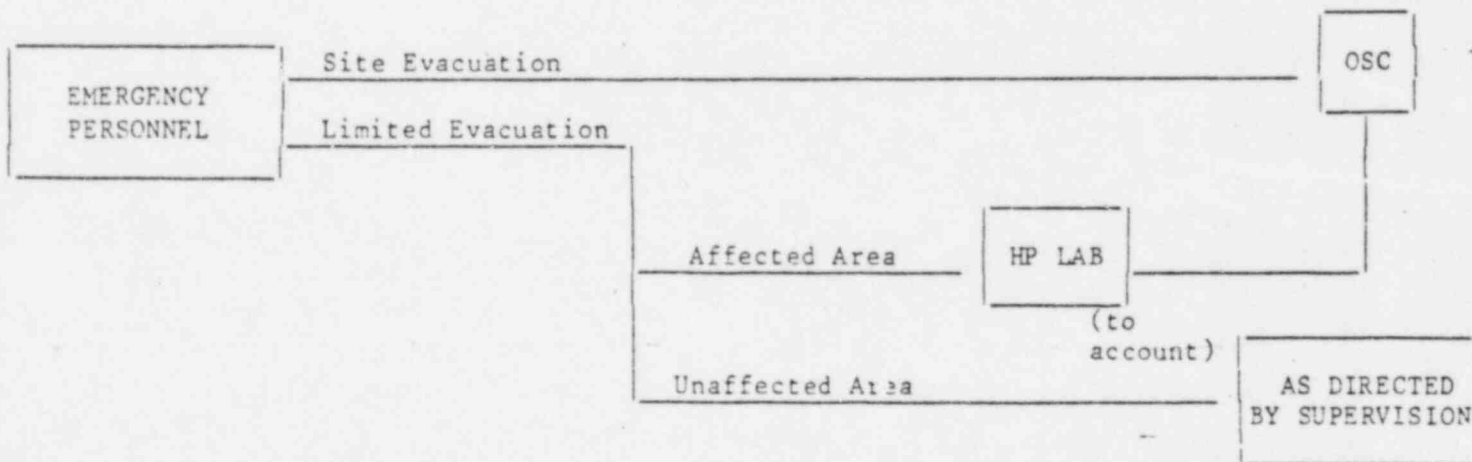
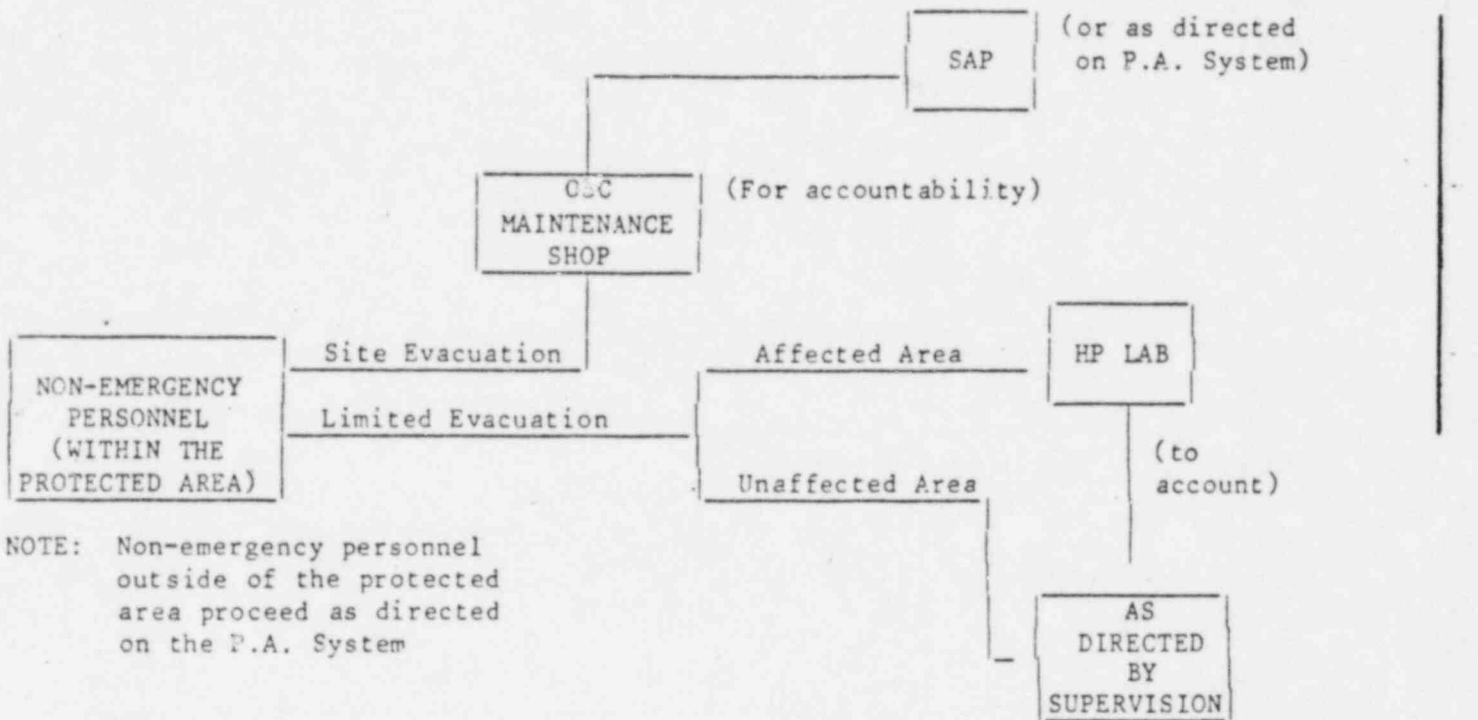
Report to the OSC (Maintenance Shop), as directed by immediate supervisor or by the P.A. System, to support emergency response actions.

NOTE

The immediate supervisor on station should determine the MINIMUM staffing requirements for his station, extra emergency personnel are to report to the OSC.

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ONSITE PERSONNEL RESPONSE FLOWCHART



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OSC DESIGNATION AREAS FOR EMERGENCY PERSONNEL

- 1) MAINTENANCE PERSONNEL - Respective Shops.
- 2) OPERATIONS PERSONNEL - Maintenance Break Room.
- 3) TECHNICAL SUPPORT ENGINEERS - Maintenance Planning Area (once required TLD and dosimetry are obtained from the Security Island or OSC, engineers not required by the OSC Coordinator may proceed to their normal work areas in the Administration Building.)
- 4) SECURITY - As directed by the Security Coordinator.
- 5) HEALTH PHYSICS, CHEMISTRY, ENVIRONMENTAL PERSONNEL - If Health Physics Lab is habitable, obtain permission from OSC Coordinator to report to the Health Physics Lab. If Health Physics Lab is not habitable, report to the Maintenance Break Room.
- 6) ALL OTHER PERSONNEL - Maintenance Break Room.

PLANT OPERATIONS MANUAL

Volume 10

10-S-01-26

Section 01

Revision 0

Date: 8/14/81

EMERGENCY PLAN PROCEDURE

OFFSITE EMERGENCY PERSONNEL RESPONSE

SAFETY RELATED

Prepared: John Vucelli  
Reviewed: Leh Stuart | [Signature] | [Signature]  
Asst. Plt. Manager      Nuclear Support Mgr.      Plt. Quality Supt.  
PSRC: Leh Stuart  
Approved: Leh A/CK McCoy  
Plant Manager

List of Effective Pages:

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Att. I	Rev. 0

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## 1.0 PURPOSE

The purpose of this procedure is to provide instructions to offsite emergency personnel that are ordered to report to the site during an emergency condition.

## 2.0 RESPONSIBILITIES

- 2.1 It is the responsibility of all emergency personnel to be familiar with the instructions of this procedure.
- 2.2 It is the responsibility of the Training and Administrative Superintendent to ensure that all emergency personnel are adequately trained to properly respond to an emergency at GGNS in accordance with this procedure.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

- 4.1 Attachment I - OSC Designation Areas for Emergency Personnel

## 5.0 DEFINITIONS

- 5.1 Emergency Personnel - Plant staff radiation workers (i.e., Operations, Maintenance, Security, Health Physics, Chemistry, Environmental, Technical Engineering, Nuclear Instructors, Management, and selected other personnel).

## 6.0 DETAILS

- 6.1 Once instructed to report to the site to provide support during an emergency at GGNS, proceed directly to the site (unless you are instructed to contact additional personnel prior to coming to the site).

### NOTE

An MP&L identification badge will be required for entry to the site.

- 6.2 Present MP&L identification badge to law enforcement and Security personnel, if requested, enroute to the site.



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6.3 Upon arrival at the site, report to:

6.3.1 Site Access Point (SAP), if activated (Security will provide traffic direction) for TLD and dosimetry, site entrance pass, and briefing on plant conditions.

6.3.2 OSC, if SAP is not activated. Pick up TLD and dosimetry at the Security Island.

6.4 Report to the designated area in the OSC (refer to OSC Designation Areas for Emergency Personnel, Attachment I) or request permission from OSC Coordinator to proceed to the plant (i.e., if required to be in TSC, Control Room, Health Physics Lab, etc.).

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OSC DESIGNATION AREAS FOR EMERGENCY PERSONNEL

- 1) MAINTENANCE PERSONNEL - Respective Shops.
- 2) OPERATIONS PERSONNEL - Maintenance Break Room.
- 3) TECHNICAL SUPPORT ENGINEERS - Maintenance Planning Area (once required TLD and dosimetry are obtained from the Security Island or OSC, engineers not required by the OSC Coordinator may proceed to their normal work area in the Administration Building).
- 4) SECURITY - As directed by the Security Coordinator.
- 5) HEALTH PHYSICS, CHEMISTRY, ENVIRONMENTAL PERSONNEL - If Health Physics Lab is habitable, obtain permission from OSC Coordinator to report to the Health Physics Lab. If Health Physics Lab is not habitable, report to the Maintenance Break Room.
- 6) ALL OTHER PERSONNEL - Maintenance Break Room.

PLANT OPERATIONS MANUAL

Volume 10

10-S-01-27

Section 01

Revision 0

Date: 9/10/81

EMERGENCY PLAN PROCEDURE

PUBLIC INFORMATION

SAFETY RELATED

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List of Effective Pages:

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## 1.0 PURPOSE

- 1.1 To provide for proper action in notifying the public of events or conditions classified in accordance with Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan.

## 2.0 RESPONSIBILITIES

- 2.1 Upon activation of the emergency plan, the Plant Manager or his designated alternate is responsible for ensuring proper information on plant events or conditions is provided for the public and the news media.
- 2.2 The Public Relations Assistant is directly responsible to the Plant Manager or his designated alternate for preparation of technically adequate reports on plant events or conditions for ultimate dissemination to the public and the news media.

## 3.0 REFERENCES

- 3.1 GGNS Emergency Plan
- 3.2 Corporate Emergency Plan Procedure, CEPP-12, Public Information
- 3.3 Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan

## 4.0 ATTACHMENTS

- 4.1 Attachment I - Initial News Release Sample

## 5.0 DEFINITIONS

Events or conditions requiring implementation of this procedure are divided into four categories as defined in Emergency Plan Procedure 10-S-01-1, Activation of the Emergency Plan, Attachment I.

- 5.1 Unusual Event - The occurrence of an event(s) which indicates a potential degradation of the level of safety of the plant. The situation may be one in which time is available to take precautionary and constructive steps to prevent a more serious event or to mitigate any consequences that may occur. No significant release of radioactive material is expected. Therefore, offsite radiological response is not expected to be necessary. No formal activation of the various centers, such as the Technical Support Center (TSC) is anticipated, although the room may be used for communications, debriefings, and meetings.

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- 5.2 Alert - The occurrence of an event(s) which involves an actual or potential substantial degradation of the level of safety in excess of Technical Specifications limits, however, it is unlikely that an offsite hazard will be created. Limited plant evacuation of certain plant areas may become necessary. It is anticipated that no response will be necessary by offsite support agencies. The Technical Support Center (TSC) and the Operational Support Center (OSC) will be activated for an Alert. Activation of the Emergency Operations Facility (EOF) is optional at the discretion of the Offsite Emergency Coordinator.
- 5.3 Site Emergency - The occurrence of an event(s) which involves actual or likely major failures of plant functions needed for protection of the public. There exists a significant actual or potential release of radioactive material and some radiation exposure to the near-site public. Therefore, if not already accomplished, the plant will activate the TSC, OSC, the SAP, and the EOF. Either limited plant or site evacuation may become necessary. Assistance from offsite support agencies may be necessary.
- 5.4 General Emergency - The occurrence of an event(s) which involves actual or imminent substantial core degradation or melting with potential loss of containment integrity and subsequent releases of large amounts of radioactive material offsite, therefore, if not already accomplished, the plant will activate the TSC, the OSC, the SAP, and the EOF. Either plant or site evacuation may become necessary. Assistance from offsite support agencies will probably be necessary. Protective actions for the near site public will probably be necessary.

#### NOTE

The severity of an event or condition will not necessarily dictate a corresponding level of public information activity. Generally, the degree of information activity will be determined by the public's perception of the seriousness of an event, rather than the actual impact of the event in terms of safety or operational effectiveness.

#### 6.0 DETAILS

- 6.1 Upon notification of an Unusual Event, the Public Relations Assistant shall:

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- 6.1.1 Consult with the Emergency Director or his designated alternate to obtain information on the event(s) that caused the condition.
  - 6.1.2 Prepare a technically adequate report on the plant event or condition to be used for release to the public, employees, and news media.
  - 6.1.3 Submit the prepared release to the Emergency Director or his designated alternate for review and approval.
  - 6.1.4 Transmit the news release to the Informational Services Department in Jackson, Mississippi for further review and eventual release to the public through normal process.
- 6.2 Upon notification of an Alert, Site Emergency, or General Emergency, the Public Relations Assistant shall:
- 6.2.1 Report to the Technical Support Center (TSC).
  - 6.2.2 Consult with an assigned technical engineer or advisor, as designated by the Emergency Director or his designee, to obtain information on the operational status of the plant and preliminary assessments on what event or condition caused activation of the emergency plan.
  - 6.2.3 Provide appropriate information on prepared Initial News Release Form (Attachment I), acknowledging the emergency and utilize this release to respond to the public, employees and news media.
  - 6.2.4 Submit release to Emergency Director for verification of technical information prior to release.
    - a. This release should be transmitted by telecopier or telephone to the Corporate Emergency Center in Jackson, Mississippi for the initial announcement on the status of plant conditions.
    - b. Once the Emergency News Media Center at Chamberlain Hunt Academy becomes operational, subsequent releases should be transmitted there for release to the public.

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- 6.2.5 Perform function from the TSC until the EOF is activated.
- 6.2.6 Remain in the EOF when the Emergency News Media Center is established, working as a team with a designated member of the technical staff.
  - a. While in the EOF, news releases will be prepared by the Public Relations Assistant from information provided by the offsite Emergency Coordinator. Technical information will be verified by the offsite Emergency Coordinator or his designee prior to transmission to the Emergency News Media Center.
  - b. The Public Relations Assistant will telephone the Emergency News Media Center Manager or his designated alternate periodically to report on plant conditions and will call the center immediately if changes indicate that an updated news release should be issued or an old one updated.
  - c. Releases will be disseminated to the public and members of the news media by staff in the Corporate Emergency Center in Jackson, Mississippi or the Emergency News Media Center at Chamberlain Hunt Academy as outlined in Reference 3.1, Appendix H.
- 6.3 News releases issued during an emergency condition shall:
  - 6.3.1 Note date and time of issue.
  - 6.3.2 Contain information regarding plant operational and environmental conditions.
    - a. News releases issued by MP&L will not contain advice to the public except to say that information on protective measures to be taken by the public will be communicated by local or state emergency management agencies.
  - 6.3.3 Be released periodically even if there is no change in the situation since the previous release.
    - a. Generally, news releases should be issued or updated hourly if there are no significant changes in plant conditions. However, significant changes in plant conditions or occurrences which affect the public must be released immediately.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 1

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\_\_\_\_\_ (Date)

Loss of electric power supply from off site caused a shutdown of the Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today, according to Mississippi Power & Light Company officials.

Operators at the 1250 MW facility say the plant's nuclear reactor, which was operating at full power, automatically shut down when the loss of offsite power occurred.

The reactor has been safely shut down and reactor cooling systems are functioning properly.

In keeping with established procedures for operating the plant, MP&L has notified the proper federal, state and local officials in Mississippi and Louisiana of the situation at the power plant.

According to the company, no radiation hazard exists and no danger to anyone exists outside the plant boundary. The nature of the problem is being investigated and further details are not available at the present time. However, the news media will be given complete information as it becomes available.

The company has asked the public not to call the plant site or any other company facility. Communications lines are needed to resolve the emergency and provide information to the news media. Information will be forthcoming through news agencies.



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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 2

\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Operators at Grand Gulf Nuclear Station are continuing to assess conditions at the plant which caused a reactor shutdown at \_\_\_\_\_ (time).

Plant officials say the reactor remains in stable condition.

According to the company, no radiation hazard exists and no danger to anyone exists outside the plant boundary. The nature of the problem is being investigated and further details are not available at the present time. However, the news media will be given complete information as it becomes available.

The company has asked the public not to call the plant site or any other company facility. Communications lines are needed to resolve the emergency and provide information to the news media. Information will be forthcoming through news agencies.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 3

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\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Two of three diesel generators at Grand Gulf Nuclear Station are now out of service, due to undetermined causes.

The one remaining diesel generator is sufficient to maintain the plant in a safe shutdown condition, officials said, but due to the fact that the power supply for operating the plant is in jeopardy, officials said they felt it prudent to update the public report at this time.

The reactor vessel has been closed down and depressurized.

"We are still investigating the reason for the loss of power", Jim McGaughy, MP&L Assistant Vice-President in charge of nuclear power, said.

According to the company, no radiation hazard exists and no danger to anyone exists outside the plant boundary. The nature of the problem is being investigated and further details are not available at the present time. However, the news media will be given complete information as it becomes available.

The company has asked the public not to call the plant site or any other company facility. Communications lines are needed to resolve the emergency and provide information to the news media. Information will be forthcoming through news agencies.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 4

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\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Grand Gulf Nuclear Station officials said today that both temperature and pressure in the reactor vessel continued to rise, but stressed that there is no danger to the public or plant personnel.

The reactor was shut down safely when the plant lost offsite power. Officials of the utility are continuing to investigate the cause of the loss of power at the facility. Onsite generators have been used to provide some emergency power at the site.

They emphasized that there has been no release of radiation from the plant to the environment.

For continuing information on the situation at the Grand Gulf plant, the company suggests that all persons in the area stay tuned to radio or television stations.

News media will be advised by public health and state and local emergency agency officials should additional precautions be required.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 5

\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Officials of the Grand Gulf Nuclear Station reported that at \_\_\_\_\_ (time) today all onsite and offsite alternating electric power to the plant has been lost.

There is some power still available at the plant from batteries, and every effort is being made to restore power at the facility. It has been determined that failure of a circuit breaker in the electric system supplying power to the plant caused the loss of power to the plant. Plans are to have it repaired as soon as a new breaker, now being sent by truck, arrives at the plant site.

Officials stressed that there is no danger to the public at this time, although temperature and pressure in the reactor have increased somewhat over the past several hours. There has been no release of radiation.

Further details, including any precautionary measures to be taken by the public, will come from periodic news releases on radio and television stations or in the newspapers.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 6

\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

A site evacuation of plant personnel of the Grand Gulf Nuclear Station has been ordered by officials of Mississippi Power & Light Company, due to the emergency conditions at the site caused by a loss of power, which began yesterday afternoon. The evacuation order was issued at \_\_\_\_\_ (time) today.

Rising pressure levels in the plant reactor vessel was the reason for ordering the site evacuation, officials explained. Should the pressure continue to increase, it could cause pipes to rupture with release of some radiation inside the plant.

They emphasized that no radiation has been released to the environment and that no offsite emergency procedures by the public are indicated at this time.

Persons living in Claiborne County, Mississippi, and Tensas Parish, Louisiana, are urged to stay tuned to radio and television stations for up-to-date information on the plant situation, in case any need for protective measures by the public should be required.

State and local emergency officials will release details concerning emergency measures to be taken by the public, should any such need arise.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 7

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\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Mississippi Power & Light Company, operators of the Grand Gulf Nuclear Station near Port Gibson, have declared a "general emergency" at the Claiborne County facility. The general emergency status, considered a serious emergency classification, was declared at \_\_\_\_\_ (time) today.

The emergency status was upgraded due to rupture of a pipe within the plant which released some radiation in both the plant and the environment.

Readings are now being taken to determine the amount of radiation being released, and state, federal and local officials are being informed.

There will be further announcements on the status of conditions at the plant and also what protective measures, if any, the public should take, as soon as the exact danger from the radiation release is determined.

If public health might be threatened, the public will be notified by state and local officials through local emergency broadcast radio and television stations. If persons are advised to leave home, they should follow instructions from public officials.

The company has asked the public not to call the plant site or any other company facility. Local emergency broadcast system radio and television stations and newspapers will carry further details of the situation as soon as they are available.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 8

\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

An analysis of air samples taken within a two-mile radius of the Grand Gulf Nuclear Station near Port Gibson, which has been declared to be in a "general emergency" status, shows that radiation exposures to residents in the two-mile radius area is at some \_\_\_\_\_ millirems.

A millirem is the unit used to measure radiation levels. As an example of dosages people receive, officials pointed out that an ordinary chest x-ray has a normal exposure of 50 millirems. The average person receives some 150 millirems of exposure each year from natural background sources, such as sunshine.

This means the exposure from the Grand Gulf Nuclear Station is relatively low, officials explained.

Plant personnel are continuing to work to correct the loss of power at the plant.

If public health might be threatened, the public will be notified by state and local officials through local emergency broadcast radio and television stations. If persons are advised to leave home, they should follow instructions from public officials.

The company has asked the public not to call the plant site or any other company facility. Local Emergency Broadcast System radio and television stations and newspapers will carry further details of the situations as soon as they are available.

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INITIAL NEWS RELEASE SAMPLE

(\_\_\_\_\_ Time)

No. 9

\_\_\_\_\_(Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

An open valve in the reactor vessel area of the Grand Gulf Nuclear Station, which allowed radioactive releases to the environment, has been closed manually, officials said at \_\_\_\_\_ (time) today. All radiation releases from the plant have ended.

The valve is on a pipe leading from the lower one-third of the reactor.

It had to be closed safely by manual effort because the plant still does not have power for such operations, the officials pointed out. The closing of the valve successfully terminated the release of radiation into both the plant and environment.

Officials stated further that they expect to restore electric power within a short time to the GGNS plant, as repairs are being pushed by workmen at the site.

Meanwhile, temperatures in the reactor vessel are increasing at a much lower rate than previously. As soon as power can be restored, the heat can be removed from the reactor and the pressure dropped within the reactor vessel.



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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 10

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\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Electric power has been restored to the Grand Gulf Nuclear Station and conditions at the plant are now returning to a "safe and stable condition", plant officials said at \_\_\_\_\_ (time) today. No radiation is being released to the environment.

Presently, plant officials are working to reduce the temperature and pressure which had been building up in the reactor vessel since the emergency first started Tuesday afternoon.

Offsite electric power was restored at \_\_\_\_\_ (time) today when a malfunctioning circuit breaker was repaired.

Officials said that plans are proceeding rapidly to restore the facility to normal operating conditions.

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INITIAL NEWS RELEASE SAMPLE

( \_\_\_\_\_ Time)

No. 11

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\_\_\_\_\_ (Date)

Mississippi Power & Light officials released the following statement on the situation at Grand Gulf Nuclear Station at \_\_\_\_\_ (time) today:

Conditions are returning to normal at the Grand Gulf Nuclear Station and efforts are underway to assess the damages caused by the emergency and to return the plant to normal operating conditions as soon as possible.

Officials said both temperature and pressure in the reactor vessel have stabilized, and that there is now no danger to the public or plant personnel.

The total radioactivity released to the environment in the 24 hours of the emergency was well below the federal safety limits for such releases. There is now no danger to the public.

"The emergency is over," Larry Dale, MP&L Emergency Coordinator, said, "and we are now closing the Emergency News Media Center, since there will be no further news releases."

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Section 01

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EMERGENCY PLAN PROCEDURE  
CONTROL OF DESIGNATED EMERGENCY VEHICLES  
SAFETY RELATED

Prepared: CE Luby R R Woods 14/9/82  
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PSRC: Le. H. Stuart 4-10-82  
Approved: C. L. M. G. 4/10/82  
Plant Manager

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List of TCN's Incorporated:

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## 1.0 PURPOSE

- 1.1 To provide a means of ensuring the availability of company owned vehicles for use during an emergency.

## 2.0 RESPONSIBILITIES

- 2.1 The Shift Superintendent is responsible for maintaining two vehicles available on site at all times for use during an emergency. He may delegate the responsibility of physically maintaining the key board and/or contacting vehicle controllers to a shift clerk, operator trainee or other personnel under his supervision.
- 2.2 Vehicle Controllers are responsible for informing the Shift Superintendent when their vehicle must leave the site if it is designated as a primary emergency vehicle. They may delegate this responsibility to a secretary, clerk or other personnel under their supervision.

## 3.0 REFERENCES

None

## 4.0 ATTACHMENTS

None

## 5.0 DEFINITIONS

- 5.1 Primary Emergency Vehicle - Any two company owned vehicles designated for onsite availability on a 24-hour/day basis. These will normally be one of the following:
  - 5.1.1 Training Van - #928
  - 5.1.2 I&C Van - #931
  - 5.1.3 One or more of the secondary emergency vehicles designated by the Shift Superintendent.

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- 5.2 Secondary Emergency Vehicle - Those company owned vehicles designated as back-ups to the primary emergency vehicles. These normally consist of the following:
- 5.2.1 Maintenance Pickup - #918
  - 5.2.2 Environmental Pickup - #914
  - 5.2.3 Operations Pickup - #(later)
  - 5.2.4 Operations Superintendent's Car - #924
  - 5.2.5 Assistant Plant Manager's Car - #917
  - 5.2.6 Nuclear Support Manager's Car - #929
  - 5.2.7 Plant Manager's Car - #937
- 5.3 Alternate Emergency Vehicle - Any other company owned vehicle on site that can be made available during an emergency.
- 5.4 Vehicle Controller - The individual designated in control of the normal use of the primary or secondary emergency vehicles.
- 5.4.1 Training Van - Doug Hunt, Extension
  - 5.4.2 I&C Van - Ron Moomaw, Extension
  - 5.4.3 Maintenance Pickup - Dennis Staer, Extension
  - 5.4.4 Environmental Pickup - Sandra Brown, Extension
  - 5.4.5 Operations Pickup - Shift Superintendent, Extension
  - 5.4.6 Operations Superintendent's Car - Gil Johnson, Extension
  - 5.4.7 Assistant Plant Manager's Car - Skip Stuart, Extension

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5.4.8 Nuclear Support Manager's Car - Dick Ambrosino, Extension 131

5.4.9 Plant Manager's Car - Ken McCoy, Extension 129

## 6.0 DETAILS

- 6.1 A keyboard will be maintained in the Shift Superintendent's office that will contain keys and specify the two primary vehicles, any secondary vehicles, and any unavailable vehicles.
- 6.2 When a primary emergency vehicle must leave the site for any reason, the Vehicle Controller must call the Shift Superintendent to advise him of the vehicle's status and expected duration of absence.
  - 6.2.1 The Shift Superintendent will call any of the secondary Vehicle Controllers to assure that one of these can be made available as a primary emergency vehicle during the period that the primary emergency vehicle is gone.
  - 6.2.2 The Shift Superintendent removes the absent vehicle keys and place them on an UNAVAILABLE VEHICLE hook. He then places the secondary emergency vehicle keys on a PRIMARY EMERGENCY VEHICLE hook. The Controller for the secondary vehicle must notify the Shift Superintendent as required in section 6.2.
  - 6.2.3 If all secondary emergency vehicles have been utilized or are unavailable and one of the designated primary vehicles must leave the site, then the Controller of that vehicle is responsible for locating and delivering the keys for an alternate emergency vehicle to the Shift Superintendent.
- 6.3 The Shift Superintendent, during an emergency, may designate any company owned vehicle as an emergency vehicle.
- 6.4 The Shift Superintendent, during an emergency, may request and authorize the use of privately owned vehicles as emergency vehicles, if required to ensure the health and safety of the public.