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EMERGENCY PLAN IMPLEMENTING PROCEDURE

EM-103

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

OPERATION AND STAFFING OF THE CR-3 CONTROL ROOM
DURING EMERGENCY CLASSIFICATIONS

APPROVED BY: Procedure Owner

John D. Stephenson
(SIGNATURE ON FILE)

DATE: 9/28/00

PROCEDURE OWNER: Radiological Emergency Planning

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1.0 PURPOSE

This procedure provides instructions for the operation and staffing of the CR-3 Control Room during emergency classifications at CR-3.

2.0 REFERENCES

2.1 DEVELOPMENTAL REFERENCES

- 2.1.1 AI-505, Conduct of Operations during Abnormal and Emergency Events
- 2.1.2 Control Room Habitability, NUREG-0737, Item III D.3.4
- 2.1.3 CR-3 Severe Accident Guideline
- 2.1.4 EM-202, Duties of the Emergency Coordinator
- 2.1.5 EM-102, Operation of the Technical Support Center
- 2.1.6 EM-104, Operation of the Operational Support Center
- 2.1.7 EM-210A, Duties of the Radiation Monitoring Team; CR-3 and Generating Complex Personnel and Area Monitoring
- 2.1.8 EM-225, Duties of the Technical Support Accident Assessment Team
- 2.1.9 HPP-409, Inventory and Availability of Emergency Supplies/Equipment
- 2.1.10 NEI 91-04, Revision 1, Severe Accident Issue Closure Guidelines
- 2.1.11 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.1.12 Radiological Emergency Response Plan
- 2.1.13 10CFR50.47, Emergency Plans
- 2.1.14 10CFR50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

3.0 PERSONNEL INDOCTRINATION

NOTE: A Safety Assessment was performed for this procedure. A determination was made that this procedure is outside the scope of 10CFR50.59.

3.1 DEFINITIONS

- 3.1.1 Re-entry - The return of personnel to an area evacuated during an emergency condition.
- 3.1.2 Severe Accident - An accident beyond that assumed in the CR-3 design and licensing basis that results in catastrophic fuel rod failure, core degradation and fission product release in the Rx vessel, Reactor Building, or the environment.

3.2 RESPONSIBILITIES

- 3.2.1 The Nuclear Shift Manager directs Control Room activities and implements this procedure and all actions required to place the plant in as safe a condition as possible to preserve the safety and well being of the general public.
- 3.2.2 The Nuclear Shift Manager is the Emergency Coordinator during the initial phase of the emergency until properly relieved by the Director, Nuclear Plant Operations or designee.
- 3.2.3 The Emergency Coordinator implements the requirements of EM-202.
- 3.2.4 The Emergency Coordinator assigns an individual the task of recording actions taken, information received, notifications made using procedures, log books or any other form of documenting the activities. Plant stabilization takes priority over assignment of these functions. [NOCS 96042]
- 3.2.5 The Nuclear Shift Manager/Emergency Coordinator is responsible for authorizing the administration of KI. (KI).
- 3.2.6 The Nuclear Shift Manager implements mitigation strategies developed and approved by the TSC during a Severe Accident.
- 3.2.7 The Nuclear Shift Manager maintains contact with the Emergency Coordinator located at the TSC by various communication systems.

3.3 LIMITS AND PRECAUTIONS

- 3.3.1 RM-A5 monitors the Control Room atmosphere and places the Control Room ventilation system in a recirculation path, through charcoal and HEPA filters, when the high alarm set point on either the gas or iodine channel is reached.
- 3.3.2 If RM-A5 or RM-G1 become inoperable or unreliable, a Health Physics Technician provides additional monitoring equipment and gross iodine analysis. These emergency supplies are provided in the Emergency Kit located in the Control Room.
- 3.3.3 In the event Control Room personnel are unable to arrange for the purchase of food during emergency conditions, a seven day food supply is located and maintained on the 124' elevation of the Control Complex in locked cabinets with key control by the Nuclear Shift Supervisor. [NOCS 40743]

3.4 EQUIPMENT

The following equipment is available in the Control Room:

3.4.1 Communication Equipment

- a. State Hot Ringdown [State Warning Point Tallahassee (SWPT), Bureau of Radiation Control, Orlando, Citrus and Levy County notification]
- b. Commercial Telephone System
- c. Florida Emergency Satellite Communication (ESATCOM) [SWPT, Citrus and Levy County notification]
- d. Emergency Notification System (ENS)
- e. Florida Power Corporation (FPC) Microwave Telephone System
- f. Dose Assessment Ringdown Telephone
- g. PAX System
- h. Accident Assessment Ringdown [NOCS 10576]
- i. Portable Transceivers (as assigned by the Emergency Coordinator)
- j. 311 emergency phone
- k. Telecopy Machine (FAX)

3.4.2 Other Emergency Related Equipment

RADDOSE IV (Dose Assessment on Support Specialist's computer in office outside the Control Room)

SPDS (Safety Parameters Display System)

Local Government Radio (LGR) Connection (Nuclear Shift Manager's Office)

PICS Archiver Retrieval (Plant Integrated Computer System stored data)

ERDS (Emergency Response Data System)

3.4.3 Emergency Kits

Control Room Emergency Kit contents are described in HPP-409, Enclosure 1. General contents include protective clothing, respirators, personnel monitoring devices and smear capability.

3.4.4 Potassium Iodide (KI)

The KI tablets are located at the Supervisor Station in the Control Room.

4.0 INSTRUCTIONS

4.1 CONTROL ROOM

NOTE: On-shift Operations Personnel may remain in their work areas to perform emergency actions during an Alert, as instructed by the Emergency Coordinator.

NOTE: Prior to the TSC becoming fully operational, personnel may be dispatched from the Control Room at the direction of the Emergency Coordinator.

4.1.1 IF indication of high iodine concentrations are present in the Control Room (e.g., RM-A5 Particulate/Iodine channel off-scale), THEN ISSUE KI tablets to Control Room operators, AND NOTIFY the TSC of actions taken.
[NOCS 62719, 62720]

4.1.2 During an Alert, Site Area Emergency, or General Emergency classification, on-shift Operations personnel REPORT to the Control Room; off-shift Operations personnel REPORT to the NSM for assignment.

4.1.3 ESTABLISH the following positions in the Control Room during an Alert, Site Area or General Emergency, as personnel become available and the TSC/OSC becomes operational, for monitoring key plant parameters and relaying information to and from the TSC as appropriate.

NOTE: The Accident Assessment Control Room Ringdown Communicator is designated by the TSC Accident Assessment Coordinator.

a. Accident Assessment Control Room Ringdown Communicator

- o ESTABLISH communication with the TSC Ringdown Communicator on the Accident Assessment Ringdown phone.
- o COMMUNICATE status of overall plant conditions and questions to the TSC Accident Assessment Team.
- o COMMUNICATE instructions to Control Room Supervisors for mitigating actions as directed by the TSC Emergency Coordinator.
- o COMMUNICATE instructions to Control Room Supervisors regarding actions to take to mitigate a Severe Accident, based on actions approved by the TSC Emergency Coordinator.
- o COMMUNICATE Control Complex repair requests to TSC Ringdown communicator.

NOTE: The Dose Assessment Communicator is an alternate source of radiological and meteorological monitoring data. This individual is assigned to the Control Room by the Dose Assessment Coordinator, or designee, in the TSC.

b. Dose Assessment Communicator

- COLLECT and EVALUATE radiological and meteorological information.
- TRANSMIT the data to the Dose Assessment Team via the Dose Assessment Ringdown phone.

4.1.4 LIMIT access to the Control Room to Plant Staff directly responsible for operation of the plant, technical advisors who may be requested to support operations, and NRC personnel.

NOTE: A Control Complex emergency team is assigned from the OSC consisting of an electrician, I/C Technician, HVAC Mechanic, and a Health Physics Technician (HPT), as they become available. This team remains in the Control Complex for repairs.

NOTE: Reentry teams consist of at least two people including a HPT. The HPT assigned to the Control Room may be used for re-entry if an immediate reentry is made by an operator.

- 4.1.5 DETERMINE radiological conditions prior to re-entry (operator dispatch from Control Room to evacuated area)
- 4.1.6 WHEN the TSC is operational, THEN ENSURE repairs requested by the Nuclear Shift Manager are communicated via the AARD for establishing TSC priority and resolution.
- 4.1.7 ENSURE Control Room personnel follow the guidelines for exposure of emergency workers as outlined in EM-104, Section 3.3, during re-entry activities.
- 4.1.8 IF immediate reentry of an operator from the Control Room is necessary to prevent imminent adverse consequences, AND the TSC/OSC is operational, THEN NOTIFY the TSC (via Accident Assessment Control Room Ringdown communicator) of the dispatch.
- 4.1.9 Health Physics Technicians ENSURE completion of Emergency Team Authorization form. An additional ETA form is not needed for Control Complex repairs.
- 4.1.10 ASSIGN two operators to the OSC Team Room during a Site Area or General Emergency, when available, for dispatch with emergency teams re-entering the plant. The TSC may request Operators, if available, during the Alert.
- 4.1.11 INSTRUCT operators assigned to the TSC/OSC to identify themselves to the OSC Manager and Accident Assessment Coordinator for TSC/OSC dispatch availability.
- 4.1.12 IF Operators are not assigned to the TSC/OSC, AND Operators are dispatched from the Control Room to perform an action or join reentry team from the OSC, THEN COORDINATE a briefing or meeting place with the OSC.
- 4.1.13 IF the Control Complex exceeds, or personnel evacuate to or through an area which exceeds, acceptable contamination or airborne activity levels, THEN DON respirators and protective clothing as needed, as provided in the Emergency Kit.

- 4.1.14 IF the Control Complex becomes the alternate location for TSC/OSC staff during an emergency,
AND is placed in the emergency recirculation mode,
THEN ENSURE Health Physics establishes O₂ and CO₂ monitoring for the Control Complex as outlined in EM-210A, Section 4.2.
- 4.1.15 IMPLEMENT mitigation strategies developed by the TSC Accident Assessment Team and approved by the Emergency Coordinator during a Severe Accident. [NOCS 100056]

PROCEDURE DEVELOPMENT AND REVISION RECORD

Procedure: EM0103

New Rev: 15

PRR#: 19357

Title: OPERATION AND STAFFING OF THE CR-3 CONTROL ROOM DURING EMERGENCY CLASSIFICATIONS

MINOR CHANGES

If Minor Changes are included, check the applicable box(es) and provide a list of affected steps.
The following corrections are incorporated throughout:

- | | |
|---|---|
| <input type="checkbox"/> Sentence Structure | <input type="checkbox"/> Redundant words or phrases |
| <input type="checkbox"/> Punctuation | <input type="checkbox"/> Abbreviations |
| <input type="checkbox"/> Capitalization | <input type="checkbox"/> Obviously incorrect units of measure |
| <input type="checkbox"/> Spelling | <input type="checkbox"/> Inadvertently omitted symbols (#, %, etc.) |
| <input type="checkbox"/> Organizational Changes: position titles,
department names, or telephone numbers | <input type="checkbox"/> Obvious step numbering discrepancies |
| | <input type="checkbox"/> Format |

The following corrections are incorporated in the step(s) indicated: "Throughout" is used in lieu of Step# if a specific change affects a large number of steps.

Correcting equipment nomenclature that does not agree with field labels or balance of procedure

Changing information that is obviously incorrect and referenced correctly elsewhere

Misplaced decimals that are neither setpoint values nor tolerances

Reference to a procedure when an approved procedure has taken the place of another procedure

Fixing branching points when it is clear the branching steps were originally intended but were overlooked or incorrectly stated due to step number changes

Adding clarifying information such as NOTES and CAUTIONS

Adding words to clarify steps, NOTES, or CAUTIONS which clearly do not change the methodology or intent of the steps

PROCEDURE DEVELOPMENT AND REVISION RECORD

Procedure: EM0103

New Rev: 15

PRR#: 19357

Title: OPERATION AND STAFFING OF THE CR-3 CONTROL ROOM DURING EMERGENCY CLASSIFICATIONS

NON-INTENT CHANGES

Changes are incorporated for the reasons provided. "Throughout" is used in lieu of Step # if a specific change affects a large number of steps. For new or cancelled procedures the reason is provided.

3.2.5 Deleted step that said "Medical Services is responsible for authorizing the administration of KI. Medical Services will not have this authority after CP&L closure. During emergencies, this authorization will be through the TSC.

3.4.1 Added NOCS number to step.

4.1.1 Change to NOTIFY the TSC versus Medical Services if KI is distributed to Control room operators. Medical Services will no longer be available to obtain permission from for administration of KI. The TSC may not be staffed at the time of KI issuance, therefore the Control Room must notify the TSC of KI issuance after issuing to operators.

4.1.3, a Add bullet to COMMUNICATE Control Complex repair requests to TSC Ringdown communicator. This ensures the TSC sets priorities to Control Complex repairs.

NOTES Make a NOTE out of previous step 4.1.5 concerning Control Complex repair team. Add NOTE clarification that Health Physics Tech is available from the Control Room for reentry if an immediate reentry is needed.

4.1.5 Add step to DETERMINE radiological conditions prior to re-entry. PC00-2377. This is the result of a drill in which it appeared the NSM dispatched the Fire Team Leader without considering radiological conditions. In most cases, there will be a Health Physics Tech in the Control Complex who can be dispatched with the FTL and if there is no one to dispatch with the FTL, consideration should still be given to radiological conditions.

4.1.6

Rephrase to clarify that once the TSC is operational, repairs requested by the NSM are communicated via the AARD for establishing TSC priority and resolution. PC00-2377. Identified during drill that NSM wanted the TSC to set priorities for the Control Complex repair team.

4.1.7

Deleted previous 4.1.7 to ensure repairs outside the Control Complex are preformed by the OSC as the statement is not necessary for EM-103. Changed the previous NOTE into step 4.1.7 to ensure Control Room personnel follow the guidelines for emergency workers, per Writers Guide.

4.1.9

Clarified Health Physics was responsible for Emergency Team Authorization forms. Also added a statement that an ETA form is not needed for Control Complex repairs. This is already a team dispatched from the OSC.

4.1.11

Added to have the operators dispatched to the OSC to identify themselves to the Accident Assessment Coordinator too. They report to the OSC Manager, but the AAC controls their actions.

4.1.12

Reword to clarify

Effective Date 9/28/00

EMERGENCY PLAN IMPLEMENTING PROCEDURE

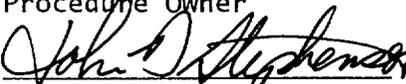
EM-104

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

OPERATION OF THE
OPERATIONAL SUPPORT CENTER

APPROVED BY: Procedure Owner


(SIGNATURE ON FILE)

DATE:

9/28/00

PROCEDURE OWNER:

Manager, Radiological
Emergency Planning

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1.0 **PURPOSE** [NOCS 1031]

1.1 Provide instructions for the activation and operation of the Operational Support Center (OSC).

Provide a point of assembly for emergency response teams assisting the Technical Support Center (TSC) in managing repair and monitoring activities during an emergency.

Provide planning, pre-job briefings and dispatch of emergency team personnel to areas evacuated during emergency conditions and areas where the radiological conditions are not well known.

1.2 **GENERAL INFORMATION**

1.2.1 The OSC is co-located at the bottom of the northeast corner of the berm with the TSC, and is activated whenever an Alert, Site Area Emergency, or General Emergency classification is declared.

1.2.2 The OSC receives direction from the TSC concerning activities and priorities.

1.2.3 Notification for activation of the OSC is by public address announcement, activation of the emergency group pagers and telephone notification, in accordance with EM-206. Enclosure 1 illustrates the layout for the OSC.

1.2.4 The Radiation Monitoring Teams, Sampling Team, Emergency Repair Team, Fire Protection, Procurement, engineering support and additional Operations personnel are based and operate from the OSC.

1.2.5 The OSC maintains full accountability for personnel dispatched from the OSC.

1.2.6 A Safety Assessment was performed for this procedure. A determination was made that this procedure is outside the scope of 10CFR50.59.

2.0 **DEVELOPMENTAL REFERENCES**

2.1 10CFR50.47, Emergency Plans

2.2 10CFR50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

2.3 EM-102, Operation of the Technical Support Center

2.4 EM-206, Emergency Plan Roster Notification

2.5 EM-210A, Duties of the Radiation Monitoring Team: CR-3 and Generating Complex Personnel and Area Monitoring

- 2.6 EM-210B, Duties of the Radiation Monitoring Team: Environmental Sampling and Plume Tracking
- 2.7 HPP-409, Inventory and Availability of Emergency Supplies/Equipment
- 2.8 Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-400-R-92-001, Environmental Protection Agency (October, 1996)
- 2.9 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.10 Radiological Emergency Response Plan
- 2.11 RSP-600, ALARA Program

3.0 PERSONNEL INDOCTRINATION

3.1 DEFINITIONS

- 3.1.1 Activation - to provide notification to emergency response personnel of the need to respond to the OSC for staffing and operation.
- 3.1.2 Emergency Call Rosters - List of current qualified emergency team members. The Roster identifies qualified Emergency Repair Team, Sampling Team, Radiation Monitoring Team members and other qualified emergency responders.
- 3.1.3 Operational - OSC emergency team personnel available for dispatch.
- 3.1.4 Qualified - Successfully completed appropriate emergency team training and currently listed on Emergency Call Roster.
- 3.1.5 Re-entry - The return of personnel to an area evacuated during an emergency condition.
- 3.1.6 Self-Reading Dosimetry (SRD) - Personal Ion Chamber (PIC) or Electronic Alarming Dosimeter (EAD).
- 3.1.7 Team Leader - A qualified, emergency response member performing the lead responsibilities for a specific emergency team that has been dispatched.

3.2 RESPONSIBILITIES

3.2.1 OSC Manager - Maintenance Manager reporting to the TSC Repairs Coordinator by managing the OSC to:

- o Ensure OSC repair activities are performed in a safe and expeditious manner.
- o Coordinate with TSC staff to establish priorities for OSC activities and communicate results.
- o Maintain command and control of OSC activities.
- o Coordinate OSC dispatch efforts with appropriate OSC Coordinator as needed.
- o Perform duties as identified in Section 4.1.

3.2.2 OSC Maintenance Coordinator - Maintenance Supervisor or qualified Emergency Repair Team (ERT) member reporting to the OSC Manager to:

- o Perform duties as identified in Section 4.2.
- o Coordinate and plan maintenance emergency repair and dispatch efforts.
- o Provide technical and administrative direction for repair activities.
- o Assist in the planning for emergency repair team activities.
- o Maintain log of repair team activities.

3.2.3 OSC Health Physics Coordinator - Health Physics (HP) Supervisor or qualified Radiation Monitoring Team (RMT) member reporting to the Dose Assessment Coordinator to:

- o Perform duties as identified in Section 4.3.
- o Coordinate and plan RMT dispatch efforts and RMT support of other emergency response teams.
- o Report radiological information to the Dose Assessment Coordinator and update the OSC Manager on relevant radiological conditions and team status.
- o Ensure habitability surveys, radiological and non-radiological, are periodically performed in the TSC/OSC.
- o Direct the issue of dosimetry and protective equipment as required and track emergency exposure.
- o Ensure emergency teams are briefed on radiological conditions and limitations.
- o Provide technical and administrative direction to HP personnel.

- o Coordinate overall radiological control of RMT activities in accordance with EM-210A.
- o Maintain log of significant RMT activities.

3.2.4 OSC Chemistry Coordinator - Chemistry Supervisor or qualified Sampling Team (ST) member reporting to the OSC Manager to:

- o Coordinate and plan Sampling Team dispatch efforts.
- o Provide Chemistry information to the Dose Assessment Coordinator and updates to OSC Manager as needed.
- o Provide technical and administrative support to Chemistry activities.
- o Provide support to obtain liquid and gas samples for core damage assessments.
- o Maintain log of ST activities.
- o Perform duties as identified in Section 4.4.

3.2.5 Administrative Support - as requested by OSC Manager to:

- o Maintain OSC Tracking Board and provide team status to TSC.
- o Provide administrative assistance to OSC Manager and OSC Coordinators as necessary.

3.2.6 Engineer - as requested by OSC Manager to:

- o Provide engineering support to OSC functions as needed. Call in engineers as needed. A list of Engineers is in OSC file drawer. The most current listing is on the Engineer Web page.

3.2.7 Fire Assessment - Fire Protection Specialist reporting to the OSC Manager to:

- o Provide fire protection support relative to plant conditions and operations.
- o Brief TSC and OSC staff on fire-related conditions.
- o Maintain log of activities.

3.2.8 Operations - ERT qualified Operator reporting to the OSC Manager to:

- o Provide operator support for OSC and TSC activities.
- o Perform duties as identified in Section 4.5.

- 3.2.9 Procurement - as requested by OSC Manager to:
- o Provide on-site material access and expediting.
 - o Procure parts, tools, and support needs which are not available on site and which are needed to support mitigation and repairs.
 - o Procure a hydrogen recombiner when requested. (Vendor-Rockwell International; FPC Manual # 1797; stored in Memphis, TN.)
- 3.2.10 Emergency Repair Team members repair equipment and facilities necessary to return the plant to safe condition.
- 3.2.11 Team Leaders perform team leader functions as identified on Enclosure 4.
- 3.2.12 Sampling Team members perform chemical or isotopic sampling and analysis as directed.
- 3.2.13 Radiation Monitoring Team member responsibilities and functions are identified in EM-210A and EM-210B.
- 3.2.14 Accident Assessment Coordinator - Located in TSC. Responsible for maintaining contact with the Control Room and developing strategies for accident mitigation. Reports to Emergency Coordinator and determines priorities for OSC operators.
- 3.2.15 Dose Assessment Coordinator - Located in the TSC. Responsible for updating and making recommendations to the Emergency Coordinator on radiological and chemistry-related activities. Reports to the Emergency Coordinator.
- 3.2.16 Emergency Coordinator - Located in the TSC. Responsible for overall coordination and direction of emergency response, authorizing exposure limits in excess of 5 REM TEDE. Reports to the EOF Director when EOF becomes operational.
- 3.2.17 Repairs Coordinator - Located in the TSC. Responsible for updating the Emergency Coordinator on repair team activities. Reports to the Emergency Coordinator.
- 3.2.18 Health Physics Department maintains inventory of emergency kits as identified in Section 3.4.1.
- 3.2.19 Nuclear Document Control maintains manuals, procedures, and drawings in the TSC/OSC.

3.3 LIMITS & PRECAUTIONS

3.3.1 OSC personnel follow the guidelines for exposure of emergency workers during re-entry activities as identified below or as stated on Emergency Team Authorization Form: [NOCS 3015]

Dose Limit Rem TEDE	Activity	Condition
5	All	
10	Prevent serious injury, protect valuable property, prevent catastrophic incident	
25	Life saving, protect large populations	
>25	Life saving, protect large populations	Voluntary > 45 years old, trained, and understand radiological health risks involved

- a. Health Physics personnel provide recommended courses of action to minimize exposure.
- b. Any exposure in excess of 25 REM TEDE should be on a voluntary basis. To perform activities not addressed in the above Table, personnel exposure in excess of 5 REM TEDE may be authorized by the Emergency Coordinator with guidance from the Dose Assessment Coordinator.
- c. During declared emergencies, emergency workers are allowed to receive up to 5 REM TEDE for duration of emergency regardless of normal exposure to date for the year.

3.3.2 There will be no re-entry into any emergency evacuated areas unless authorized by the EC or designee.

3.3.3 As a group, the team shall be knowledgeable in Radiation Protection procedures and should have capabilities in Operations and Maintenance.

3.3.4 Efforts to minimize exposure by ALARA practices shall be maintained.

3.3.5 For safety reasons, an emergency team dispatched from the OSC consists of at least two persons, one being a Radiation Monitoring Team member. The OSC Health Physics Coordinator may waive the RMT member requirement when radiological conditions warrant.

3.3.6 RMT members may be independently dispatched from the OSC to perform surveys.

3.3.7 Emergency team members must be qualified - listed on current Emergency Call Rosters.

- 3.3.8 Personnel shall not enter evacuated areas without portable survey instruments and personnel monitoring devices. Personnel accompanied by an RMT member are not required to carry portable survey equipment.
- 3.3.9 Emergency Operating Procedure (EOP) actions taken prior to the TSC being operational are not applicable under the guidance of EM-104.
- 3.3.10 The TSC/OSC ventilation system, when in the emergency recirculation mode, includes a minimum breathing air requirement to support 50 people. Monitoring of O₂ and CO₂ must take place when the TSC/OSC is in the emergency recirculation mode and occupancy exceeds 50.
- 3.3.11 IF an exposure of greater than 25 REM to the thyroid is expected, THEN consider the administration of KI as directed by the TSC.
- 3.3.12 The TSC/OSC habitability boundary doors must be tightly closed when TSC/OSC is put into emergency recirculation mode.
- 3.3.13 Each emergency team member is to report to Dosimetry prior to re-entry to verify dose margin and upon completion of re-entry to update individual doses in the Radiological Data Management System (RDMS).

3.4 TSC/OSC EQUIPMENT AND SUPPLIES

3.4.1 Emergency Kits [NOCS 1126, 24200, 24290]

NOTE: HPP-409, identifies the contents of the following kits.

- a. TSC/OSC Emergency Kit
- b. Decontamination Kit
- c. Radiation Monitoring Team Emergency Kit
- d. Environmental Survey Kit (located in Survey Vehicle and Nuclear Security Operations Center)

3.4.2 Drawing/Procedure/Supply Files

Selected plant drawings, Plant Procedures and administrative supplies are contained in file cabinets located in the OSC Briefing Area. All other plant drawings are on aperture cards in the Dosimetry Room.

3.4.3 Equipment

- a. Commercial Telephone
- b. FPC Microwave System
- c. Public Address Exchange System (PAX)
- d. Portable Transceivers
- e. Sandpiper Pump (electric and manual)
- f. Portable Continuous Air Monitor
- g. Radiological Data Management System (RDMS)
- h. Tape recorder

4.0 INSTRUCTIONS

The steps under this section are not required to be performed in sequence.

Check the listing below for OSC position and refer to the designated section for instructions. Positions not listed perform job functions as needed to support OSC activities and as identified under responsibility section.

IF YOUR OSC POSITION IS:	REFER TO SECTION:
OSC Manager	4.1
OSC Maintenance Coordinator	4.2
OSC Health Physics Coordinator	4.3
OSC Chemistry Coordinator	4.4
OSC Operations Personnel	4.5
Emergency Team Members	4.6
Emergency Team Leader	Enclosure 4

4.1 OSC MANAGER

4.1.1 Activation

- 4.1.1.1 OBTAIN plant radios from Standards Cal. Lab for emergency use (several radios have been set aside in Cal Lab. - one is to be given to the Accident Assessment Team).

- 4.1.1.2 REPORT to the OSC upon the declaration of an Alert, Site Area or General Emergency.
- 4.1.1.3 BADGE-IN at TSC/OSC Card reader.
- 4.1.1.4 NOTIFY TSC Repair Coordinator of your arrival.
- 4.1.1.5 OBTAIN procedures as needed from Procedure file.
- 4.1.1.6 VERIFY operability of communication links to the TSC Repairs Coordinator.
- 4.1.1.7 REPORT equipment problems/readiness to the TSC Repair Coordinator.
- 4.1.1.8 The OSC is operational as soon as it is staffed with emergency team personnel available to support the TSC.

4.1.2 **Operation**

- 4.1.2.1 DETERMINE status of repair activities already in progress and NOTIFY TSC Repairs Coordinator of repair teams in the field.
- 4.1.2.2 PROVIDE advice to TSC Repairs Coordinator on plant repairs and corrective actions as appropriate, determining prioritization of repair activities with the TSC Repairs Coordinator.
- 4.1.2.3 COORDINATE repair activities already in progress with OSC Maintenance Coordinator and ensure RMT coverage is provided as needed.
- 4.1.2.4 COORDINATE Sampling Team (ST) activities already in progress with OSC Chemistry Coordinator and ensure RMT coverage is provided as needed.
- 4.1.2.5 ENSURE an Emergency Team Authorization (ETA) form depicted on Enclosure 3 is written for emergency response teams in the field and teams making a reentry.
- 4.1.2.6 APPROVE appropriate ETAs <5 REM prior to team dispatch. Consider having team members dressed out and dosimetry issued prior to need for dispatch.
- 4.1.2.7 INITIATE log of activities to document times and results of significant OSC activities. As a minimum include times of specific TSC requests and time and results provided back to TSC.
- 4.1.2.8 ENSURE OSC staff is augmented as needed (reference Enclosure 2), and appropriate team members dispatched to Control Complex when available, as the Control Complex Repair Team. This team remains in the Control Complex taking direction from the OSC Manager.
- 4.1.2.9 CONDUCT briefings, as needed, with OSC personnel to ensure awareness of plant conditions. UPDATE Control Complex Repair Team as needed.

- 4.1.2.10 Upon request from the TSC for team dispatch, COORDINATE with appropriate OSC Coordinator and ENSURE the requested activity is planned consistent with directions from the TSC.
- 4.1.2.11 WHEN the activity is planned and the appropriate Team Leader identified,
THEN ENSURE pre-job briefings are held with Health Physics in accordance with Enclosure 4.
- 4.1.2.12 COORDINATE OSC Operator dispatch with the Repairs Coordinator in the TSC to ensure the TSC Accident Assessment Coordinator is aware of dispatch.
 - 4.1.2.12.1 IF Operations personnel are dispatched from the Control Room, instead of from the OSC,
THEN ENSURE a Health Physics Tech is dispatched with them as needed,
AND they are informed of the pre-job briefing discussion.
- 4.1.2.13 ENSURE teams hold post-job briefings with respective coordinators as appropriate upon return to the OSC and the results are documented in logs or on tape.
- 4.1.2.14 UPDATE the TSC Repairs Coordinator of OSC activities (Team dispatch, problems and activity results as appropriate)
- 4.1.2.15 COORDINATE a shift relief rotation for OSC personnel as appropriate.
- 4.1.2.16 ENSURE shift turnover is provided to the on-coming shift.
- 4.1.2.17 INITIATE OSC relocation in accordance with Enclosure 5 if requested by Emergency Coordinator or designee. [NOCS 24130]
- 4.1.2.18 ENSURE OSC Team Status Board is updated and information is provided to TSC.

4.1.3 Deactivation

- 4.1.3.1 DEACTIVATE the OSC, when directed by the Emergency Coordinator or designee.
- 4.1.3.2 RETURN equipment and supplies to storage.
- 4.1.3.3 ASSEMBLE logbooks and any other documentation generated during the emergency for collection by Radiological Emergency Planning personnel.

4.2 OSC MAINTENANCE COORDINATOR

4.2.1 Activation

- 4.2.1.1 REPORT to the OSC with plant radio (radios are to be brought from the Standards Cal Lab) upon the declaration of an Alert, Site Area or General Emergency
- 4.2.1.2 BADGE-IN at TSC/OSC Card reader.
- 4.2.1.3 NOTIFY OSC Manager of your arrival.
- 4.2.1.4 OBTAIN Emergency Repair Team logbook, Valve locator books, system one line switching diagram, plant layout floor maps from file as needed.
- 4.2.1.5 IF emergency occurs during off hours, THEN ENSURE adequate number of qualified ERT members are notified and report to OSC. REFER TO Emergency Team Roster located in file for qualified members.
- 4.2.1.6 UNLOCK tool boxes in OSC Team Room and the electric sandpiper pump located in decon shower. The key is located in file drawer.

4.2.2 Operation

NOTE: Evacuated maintenance personnel at the Main Assembly may be reached by contacting the Main Assembly Area Supervisor.

- 4.2.2.1 IDENTIFY Emergency Repair Team (ERT) members working on emergency activities in the plant in support of the emergency to the OSC Manager, and ENSURE they are listed on a Emergency Team Authorization form (Enclosure 3).
- 4.2.2.2 VERIFY each ERT member is currently ERT qualified. (listed on ERT Emergency Call Roster)
- 4.2.2.3 WHEN an additional electrician, an I/C technician, and HVAC mechanic are available, THEN ASSIGN them to the Control Room. This Control Complex Repair Team takes direction from the OSC Manager for repairs within the Control Complex.
- 4.2.2.4 COORDINATE equipment repair priorities with OSC Manager.
- 4.2.2.5 IF it is necessary to become a Team Leader for a repair activity, THEN NOTIFY the OSC Manager of OSC Coordinator replacement OR APPOINT the OSC Manager to act on your behalf.

- 4.2.2.6 Upon request from the OSC Manager, IDENTIFY a Team Leader for the repair team activity and PLAN the repair.
- 4.2.2.7 ASSEMBLE appropriate team personnel and ENSURE a pre-job briefing is performed in accordance with Enclosure 4. The Team Leader may plan the repair and perform the pre-job briefing.
- 4.2.2.8 ENSURE emergency repair teams have proper procedures, tools, and protective equipment prior to entry into the plant.
- | 4.2.2.9 MAINTAIN contact with and DIRECT ERT repair teams outside the Control Complex.
- 4.2.2.10 IF it is determined that the TSC/OSC is to be put into emergency recirculation mode, THEN ENSURE steps are taken in Enclosure 6.
- 4.2.2.11 ENSURE the Shower Holding Tank sump connections are established for processing of contaminated water, as needed. (REFER TO Enclosure 7 for guidance.)
- 4.2.2.12 IDENTIFY parts, tools, and support needs not available on-site to the Procurement Representative in the OSC.
- 4.2.2.13 CONSIDER heat stress and crew rotation needs to supplement manpower requirements.
- | 4.2.2.14 ENSURE a post-job briefing is held.
- | 4.2.2.15 DIRECT the Team Leader to document the results of the repair either in the log or on tape, for each emergency repair upon return to the OSC. Enough information is needed to be able to write Work Requests after the emergency.

4.3 OSC HEALTH PHYSICS COORDINATOR

4.3.1 Activation

- 4.3.1.1 REPORT to the OSC upon the declaration of an Alert, Site Area or General Emergency
- 4.3.1.2 BADGE-IN at TSC/OSC Card reader.
- 4.3.1.3 NOTIFY OSC Manager and Dose Assessment Coordinator of your arrival.
- 4.3.1.4 OBTAIN procedures as needed.
- 4.3.1.5 IF emergency occurs during off hours, THEN ensure adequate number of qualified RMT members are notified and available to report to OSC. REFER TO Emergency Team Roster located in file drawer.
- 4.3.1.6 VERIFY operability of communication links to the TSC Dose Assessment Coordinator.

4.3.2 Operation

NOTE: Evacuated Health Physics personnel at the Main Assembly Area may be reached by contacting the Main Assembly Area Supervisor.

- 4.3.2.1 COORDINATE the initiation of an Emergency Radiation Work Permit (ERWP) with the Dose Assessment Coordinator and in accordance with Enclosure 8.
- 4.3.2.2 OBTAIN EC or designee approval for ERWP.
- 4.3.2.3 LIST RMT members who will be performing surveys and monitoring activities up to 5 REM on a separate, approved ETA form and POST until conditions warrant EC approval for > 5 REM (TEDE).
- 4.3.2.4 COORDINATE RMT members needed by other teams in the plant with OSC Manager. These may include EOP actions, depending on the length of the EOP action.
- 4.3.2.5 VERIFY each RMT member is currently RMT qualified.
- 4.3.2.6 ENSURE periodic CO₂/O₂ sampling is initiated in accordance with EM-210A, Section 4.2 for the TSC/OSC.
- 4.3.2.7 ESTABLISH controlled access into radiation areas as required by procedures.

- 4.3.2.8 ASSIGN, when available, an additional Health Physics Tech. to the Control Complex Repair team to take direction from the OSC HP Coordinator for dispatch as needed.
- 4.3.2.9 ENSURE large OSC survey maps are updated as needed.
- 4.3.2.10 ENSURE items listed on Enclosure 1 of EM-210A, Radiation Monitoring Team Checklist, have been completed.
- 4.3.2.11 ENSURE TLDs are provided for all team members that report to the OSC and for teams already dispatched.
- 4.3.2.12 PROVIDE OSC Manager with periodic updates on radiological conditions.
- 4.3.2.13 Upon request from the TSC, IDENTIFY a Team Leader and plan identified monitoring or survey activity.
- 4.3.2.14 ASSEMBLE RMT personnel and ensure an appropriate pre-job briefing is held.
- 4.3.2.15 ENSURE a Emergency Team Authorization (ETA) form (Enclosure 3) is completed for each ERT, ST and Operation team dispatched.
- 4.3.2.15.1 IF Operators are not assigned to the TSC/OSC, THEN Operators dispatched from the Control Room, AND re-entry teams in need of an operator, MUST coordinate meeting place for briefing of the operator.
- 4.3.2.16 ASSIGN an RMT member for each re-entry, when conditions warrant, to assist in preparation and job coverage.
- 4.3.2.17 INFORM responding emergency team of current or changing radiological conditions affecting the team.
- 4.3.2.18 MAINTAIN awareness of OSC personnel radiation exposure status and INFORM Dose Assessment Coordinator of personnel approaching 5 REM (TEDE) exposure limits.
- 4.3.2.19 INFORM the Dose Assessment Coordinator if radiological conditions are such that Security personnel should prepare for suspension of safeguards in areas affected by radiological releases.
- 4.3.2.20 INFORM the Dose Assessment Coordinator if any team member's thyroid dose of 5 REM is reached. Update as needed until the magnitude of projected thyroid dose reaches 25 REM.
- 4.3.2.21 ISSUE KI, located in TSC cabinet, to OSC personnel when authorized.
- 4.3.2.22 Continuously UPDATE the Dose Assessment Coordinator of RMT activities and dose rate survey results. DOCUMENT times of significant dose rate results.

4.4 OSC CHEMISTRY COORDINATOR

4.4.1 Activation

- 4.4.1.1 REPORT to the OSC and take a plant radio with you if possible, upon the declaration of an Alert, Site Area or General Emergency
- 4.4.1.2 BADGE-IN at TSC/OSC Card reader.
- 4.4.1.3 NOTIFY OSC Manager and Dose Assessment Coordinator of your arrival.
- 4.4.1.4 OBTAIN procedures as needed.
- 4.4.1.5 IF emergency occurs during off hours, THEN ensure adequate number of qualified Sampling Team (ST) members are notified and report to OSC. Refer to Emergency Team Roster located in file drawer.

4.4.2 Operation

NOTE: Evacuated Chemistry personnel at the Main Assembly Area may be reached by contacting the Main Assembly Area Supervisor.

- 4.4.2.1 IDENTIFY ST members in the plant supporting the emergency, to the OSC Manager and ensure they are listed on a Emergency Team Authorization (ETA) form (Enclosure 3).
- 4.4.2.2 VERIFY each ST member is currently ST qualified (listed on ST Emergency Call Roster).
- 4.4.2.3 COORDINATE dispatch of ST with OSC Manager.
- 4.4.2.4 ESTABLISH log of activities documenting time TSC requests chemistry samples, time sample pulled and time results given to TSC.
- 4.4.2.5 IF it is necessary to become Team Leader for Sampling Team, THEN notify the OSC Manager of OSC Coordinator replacement, OR appoint the OSC Manager to act as coordinator.
- 4.4.2.6 Upon request for Sampling Team, IDENTIFY a Team Leader and plan the activity.
- 4.4.2.7 ASSEMBLE appropriate team personnel and ensure a pre-job briefing is performed in accordance with Enclosure 4.
- 4.4.2.8 PROVIDE technical and administrative support to Chemistry activities
- 4.4.2.9 ENSURE the ST continues to perform chemical or radiological liquid and gas samples for core damage assessments as requested.

- 4.4.2.10 MAINTAIN communication with the Dose Assessment Coordinator, keeping him updated on ST activities as appropriate.
- 4.4.2.11 MAINTAIN contact with dispatched ST.
- 4.4.2.12 PROVIDE sample results to the TSC Dose Assessment Coordinator for core damage estimation and dose projection.
- 4.4.2.13 ENSURE a post-job briefing is held and sample results documented.

4.5 OPERATIONS PERSONNEL

4.5.1 Activation/Operation

NOTE: Operators assigned to the OSC are under the direction of the OSC Manager. The OSC Manager coordinates Operator actions through the TSC Repairs Coordinator to ensure the TSC Accident Assessment Coordinator is aware of and agrees to the dispatch.

NOTE: ERT qualified operators respond to the OSC during an Alert, Site Area Emergency and General Emergency as soon as available to support OSC re-entry and Control Room/Accident Assessment activities.

- 4.5.1.1 NOTIFY the OSC Manager and Accident Assessment Coordinator of your arrival.
- 4.5.1.2 COORDINATE activities with OSC Manager and ENSURE prior to dispatch from the OSC you are briefed in accordance with Enclosure 4 and FOLLOW instruction for Emergency Teams.
- 4.5.1.3 When possible, MONITOR Accident Assessment Ring Down and provide updates of plant conditions to OSC Manager.

4.6 EMERGENCY TEAM MEMBERS

4.6.1 Activation

NOTE: Emergency team responders, unless pre-identified to report to an Emergency Facility, must report to appropriate Local Assembly Area during an Alert declaration.

- 4.6.1.1 REPORT to the OSC upon assignment to respond as an emergency team member.
- 4.6.1.2 REPORT directly to the OSC for assignment as an emergency team member upon the declaration of a Site Area or General Emergency.
- 4.6.1.3 BADGE-IN at TSC/OSC Card reader.
- 4.6.1.4 NOTIFY appropriate OSC Coordinator of your arrival.
- 4.6.1.5 REMAIN in OSC Team room until requested for emergency response.
- 4.6.1.6 FOLLOW instructions of respective OSC Coordinator or OSC Manager.

4.6.2 Operation

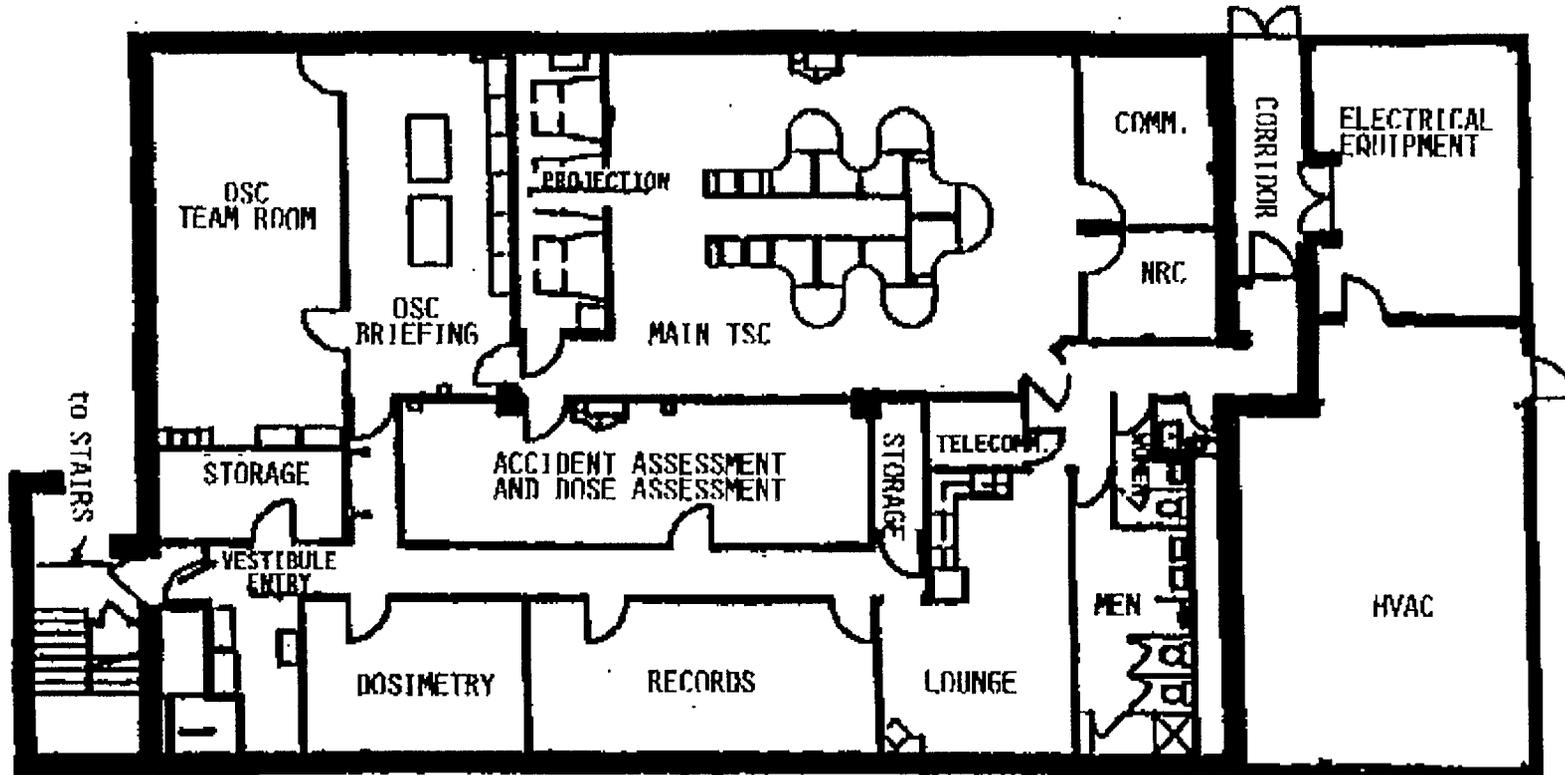
Upon formation of an emergency team, the following occurs:

- 4.6.2.1 The Radiation Monitoring Team members will:
 - o COMPLETE the Emergency Team Authorization form (Enclosure 3) in accordance with the requirements of the Emergency RWP (Enclosure 7) and any instructions stated on the pre-job briefing.
 - o ENSURE team members follow the instructions stated on the ERWP and ETA.
 - o REPORT any problem or hazard encountered along the route traveled or during the mission of that team.
 - o ABORT the re-entry if physical or radiological conditions deteriorate or exceed the limits set, or if communications are lost between the Team Leader and the OSC.
 - o ENSURE RDMS is updated upon return so team member dose records are updated.
 - o PERFORM radiological duties, as required, in accordance with EM-210A.

4.6.2.2 The responding emergency team will:

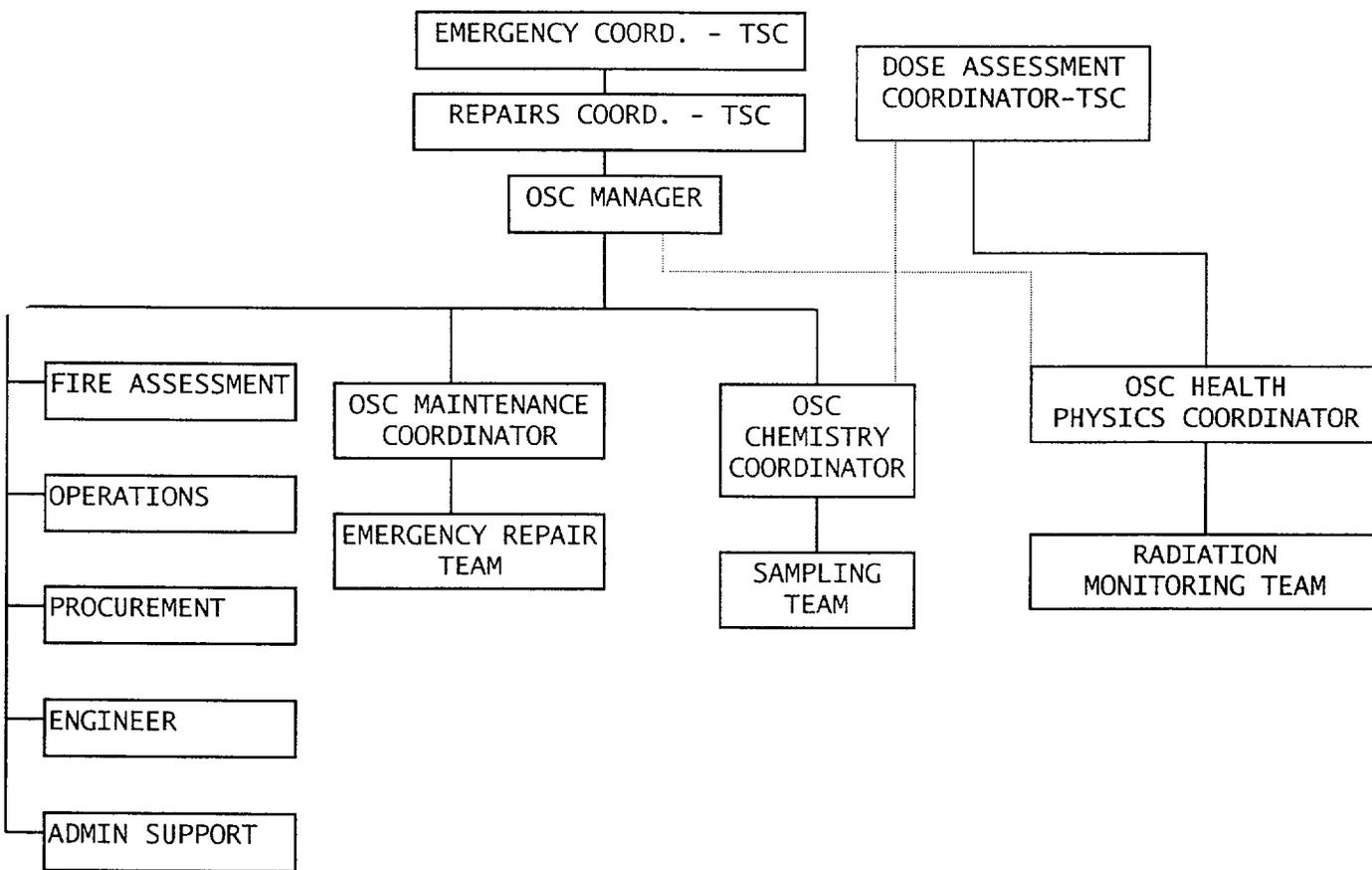
- o ATTEND pre-job briefing in accordance with Enclosure 4.
- o OBTAIN respiratory devices, dosimetry, protective clothing, and portable survey instruments required by the Emergency Team Authorization.
- o RE-ZERO dosimetry as needed.
- o PROCEED to designated area following the pre-determined route, observing all written and/or verbal precautions.
- o PERFORM designated work per written procedures or as discussed in pre-job briefing.
- o CONTINUOUSLY EVALUATE exposures during the re-entry.
- o Not deviate from the planned route unless required by unanticipated conditions, for a rescue, or to perform an activity which would minimize the emergency condition.
- o OBTAIN as much information as possible along the route, such as physical plant conditions, equipment damage or radiological data.
- o RETURN to point of departure via the same predetermined route taken above unless given other instructions.
- o RETURN to the OSC after completion of assigned tasks and follow the directions of the RMT member at the control point.

LAYOUT OF TSC/OSC



OPERATIONAL SUPPORT CENTER RECOMMENDED STAFFING LEVELS
 (Phone numbers listed in EM-206 and on Emergency Team Rosters.
 Engineering contacts in OSC file drawer "E")

OSC Manager	1	
OSC Health Physics Coordinator	1	
OSC Chemistry Coordinator	1	
OSC Maintenance Coordinator	1	
Fire Assessment	1	
Engineering Support (as needed)	1	
Administrative Support	1	
Procurement	1	
Radiation Monitoring Team Members	10	(2-4 ESV)
Sampling Team	3	
Emergency Repair Team (Elec, I/C, Mech)	7	(2 Elec, 2 I/C, 3 Mech)
Operators	2	





SAMPLE EMERGENCY TEAM AUTHORIZATION

TYPE OF EMERGENCY TEAM DISPATCHED and NUMBER	DATE	TIME
--	------	------

REASON FOR ENTRY

RADIOLOGICAL CONDITIONS

INSTRUCTIONS FROM PRE-JOB BRIEFING

- 1) Team Leader must carry Radio 2) OSC Phone # 3)

EQUIPMENT USED

PROTECTIVE CLOTHING/EQUIPMENT <input type="checkbox"/> None <input type="checkbox"/> Standard PC's <input type="checkbox"/> Double PC's <input type="checkbox"/> Plastics <input type="checkbox"/> Cloth/Paper	RESPIRATORY <input type="checkbox"/> None <input type="checkbox"/> SCBA <input type="checkbox"/> Negative Pressure Respirator <input type="checkbox"/> Particulate <input type="checkbox"/> Sorbent	DOSIMETRY <input type="checkbox"/> EAD: Setpoints: ____/____ <input type="checkbox"/> Low Range Dosimeter <input type="checkbox"/> High Range Dosimeter <input type="checkbox"/> TLD <input type="checkbox"/> Multi-Badge <input type="checkbox"/> Extremity
--	---	---

DOSE LIMIT FOR ENTRY

mREM *

OSC HP COORDINATOR APPROVAL (up to 5 REM)

EMERGENCY TEAM PERSONNEL	TLD#	TIME	
		IN	OUT
TEAM LEADER			
TEAM MEMBERS			

RE-ENTRY APPROVED/ EMERGENCY COORDINATOR OR DESIGNEE > 5 REM (TEDE)
OSC MANAGER up to 5 REM (TEDE)

DATE

TIME

* EMERGENCY DOSE LIMITS:

- | | |
|-----------------------------|---|
| 5 REM (TEDE) - | Allow able margin for each worker |
| 10 REM (TEDE) - | Prevent injury, protect valuable property |
| 25 REM (TEDE) - | Life saving, protect large populations |
| VOLUNTEER > 25 REM (TEDE) - | Life saving, should be trained volunteer |
| | > 45 years of age |

EMERGENCY TEAM AUTHORIZATION (ETA) GUIDANCE

A. Purpose

To authorize the dispatch of a designated team of personnel from the OSC for the performance of specific emergency related tasks, even if the Protected Area is not yet evacuated.

B. Contents

1. Type of team being authorized - Include type and number (ERT-2, ST-1, RMT-1)
2. Reason for entry - A brief description of why the designated team is dispatched.
3. Radiological Conditions - The anticipated conditions the team may encounter during the re-entry.
4. Instructions from Pre-Job Briefing - Include a brief description of the task the team is to perform.
5. Equipment used - Identify protective equipment to be used by personnel assigned to the team involved in the re-entry.
6. Dose limit for entry and approval - The OSC HP Coordinator approves the dose limit applicable to each of the team members up to and including 5 REM. If greater than 5 Rem, this step can be NA as approval will be from the Emergency Coordinator (Step 9). Because of the health risks associated with the dose limit, lifesaving missions should be undertaken by volunteers (healthy and above the age of 45) who have an understanding of the health risks and preferably by those whose normal duties have trained them for such missions.
7. Emergency Worker Exposure Calculation: IF no core melt, THEN TEDE = SRD Dose; IF core melt, THEN TEDE = SRD Dose times five.
8. Emergency Team Personnel - List team members assigned to re-entry and time re-entry starts (IN) and time of termination (OUT).
9. Re-entry Approval - Signed by the EC or Dose Assessment Coordinator if > 5 REM (TEDE) and delegated to the OSC Manager for up to and including 5 REM (TEDE), designating that the re-entry for the team is authorized.

C. Development and Approval

1. After selecting team members, prepare for dispatch by addressing such items as tools needed, scope of task, review of procedures applicable to task and assigning specific tasks that may increase the effectiveness and speed of the task completion (see Enclosure 4).
2. Meet with the RMT member assigned to re-entry. After filling out the ETA form up to and including the Equipment Used, the RMT member takes the ETA to the OSC HP Coordinator for Dose Limit approval up to and including 5 REM.
3. Take form to the OSC Manager for entries not exceeding 5 REM (TEDE) or to the EC or his designee if > 5 REM (TEDE), who reviews and approves the re-entry to be conducted.
4. The ETA is updated to reflect time of team dispatch and posted for tracking. The copy should go in field with Team.
5. When the re-entry is completed, RDMS is updated with the dose accumulated for the team members. The ETA is updated to reflect the time the team exited the re-entry.
6. Subsequent team entries are made on separate ETAs, except as noted on ERWP.

TEAM BRIEFING/RE-ENTRY CHECKLIST

Re-entry is made for one of the following purposes:

- o Search for unaccounted personnel.
- o Perform monitoring, sampling, operations or repairs to minimize or eliminate the source of the emergency.
- o Perform the surveys needed to assess the radiological conditions and establish exclusion area boundaries.
- o Perform rescue operations.
- o Save property.

PRIOR TO DISPATCH

- DETERMINE scope of tasks, pre-plan work activities as needed.
- ENSURE Team members have protective clothing, dosimetry, respiratory devices, and/or other protective equipment as specified by the Emergency Team Authorization (ETA) form.
- VERIFY operability of survey instruments, radios and any other equipment needed prior to departure from OSC.
- ENSURE Self-Reading Dosimetry is re-zeroed as needed. Extremity TLDs are available in the TSC/OSC Emergency Kit.
- NOTIFY the OSC Manager the team is ready to depart.

PRE-JOB BRIEFING

The appropriate OSC Coordinator or designated Team Leader, in conjunction with Health Physics Coordinator, briefs the emergency team on the following:

- The nature of the emergency and any other known hazards.
- The purpose of the dispatch and the expected result.
- Route the team will take back into the evacuated area.
- Area dose rates (if known), amount of dose each team member may expect to receive based on hazards enroute and at emergency site
- What actions should be taken if unanticipated conditions are encountered.

EMERGENCY TEAM LEADER FUNCTIONS:

- _____ UNDERSTAND the purpose of the re-entry and perform pre-job briefings as requested.
- _____ IF suspension of safeguards has been invoked, AND a key is necessary for entry into a locked area of the plant, THEN obtain key from Control Room or TSC Security Coordinator.
- _____ REPORT any condition or event within the scope of the teams training or experience which could minimize the effects of the emergency.
- _____ ENSURE the completion of the task for which the team was dispatched.
- _____ RELAY relevant plant conditions and significant actions taken by the team to the appropriate OSC Coordinator for logging.
- _____ COORDINATE returning equipment to service (opening or closing of valves, energizing components, etc.) directly with the Control Room.
- _____ INFORM Control Room of job completion when it affects plant equipment.
- _____ ENSURE all team members report to Dosimetry upon return to OSC to update individual doses in RDMS.
- _____ PERFORM post-job briefing with appropriate OSC Coordinator or OSC Manager upon return.
- _____ DOCUMENT repair actions taken during re-entry to provide enough information for Work Request that is re-created after the emergency. Documentation may be made in OSC Log or on tape.

CONTINGENCY PLAN FOR SECURING OSC AND ESTABLISHING
AN ALTERNATE OSC
[NOCS 24130]

BEFORE GOING TO ALTERNATE LOCATION

- a. Identify minimum OSC staff necessary based on plant conditions. _____
- b. Consider taking items identified below. _____
- OSC Tool Boxes
Radios
Emergency Kits or contents as needed
Any other items as determined by OSC Coordinators

STEPS TO SECURE OSC IF STORM SURGE IS EXPECTED

- a. Place high value items on tables: _____
- Computers and peripherals _____
 - Communication equipment _____
 - Anything else that can be placed on tables _____
- b. Verify flood protection has been placed around TSC/OSC (EM-220). _____
- c. Ensure appropriate TSC equipment has been de-energized (EM-220, Enclosure 2). _____
- d. Disable auto start on diesel by selecting the "Auto/Test" switch to the center "Off" position on the generator Kohler Controller. _____

RELOCATE TO 124' ELEVATION OF THE CONTROL COMPLEX

ACTIVITY - Team Staging Area

PERSONNEL - Fire Brigade, Sampling Team, Emergency Repair Team, Radiation Monitoring Team, Security, OSC Manager, OSC Coordinators (as needed).

SETUP - may include chairs, radios, tables and emergency kits as needed.

OPERATION - The OSC Manager remains on 124' elevation with emergency teams. He assigns someone to the PAX phone to remain in communication with the Alternate TSC located outside the Control Room. Once a team is identified, a briefing occurs and then dispatched. OSC Coordinators are on the 124' elevation with teams.

PLACING TCS/OSC INTO EMERGENCY RECIRCULATION MODE
[NOCS 63008]

CAUTION: Activation of the emergency mode requires entry into potential Radiation Controlled Areas. Ensure a Radiation Monitoring Team member accompanies personnel performing this action.

ACTIVATION (See schematic on next page)

Perform the following actions from the HVAC room to activate the emergency recirculation mode for the TSC/OSC:

- _____ Open the access door for AHD-119.
- _____ At AH-229, rotate the switch from the "NORMAL(1)" to the "EMERGENCY(2)" position on the emergency mode control panel.
- _____ Verify the emergency recirculation mode by the following:
 - AHD-120 damper is in the emergency mode position. AHD-120 is located at waist level at the south side of the room.
 - AHF-62 fan is operational as indicated by a red light at the motor/starter panel on the southeast wall.
 - AHU-20 is operational as indicated by a red light at the motor/starter panel on the west wall.
 - AHF-60 fan is operational as indicated by a red light at the motor/starter panel in the middle of the room.
 - AHF-61 fan is operational as indicated by a red light at the motor/starter panel in the middle of the room.
- _____ IF the fans and dampers are not operational or in proper position, THEN notify the Maintenance Coordinator.

NOTE: Pliers may be needed on roof.

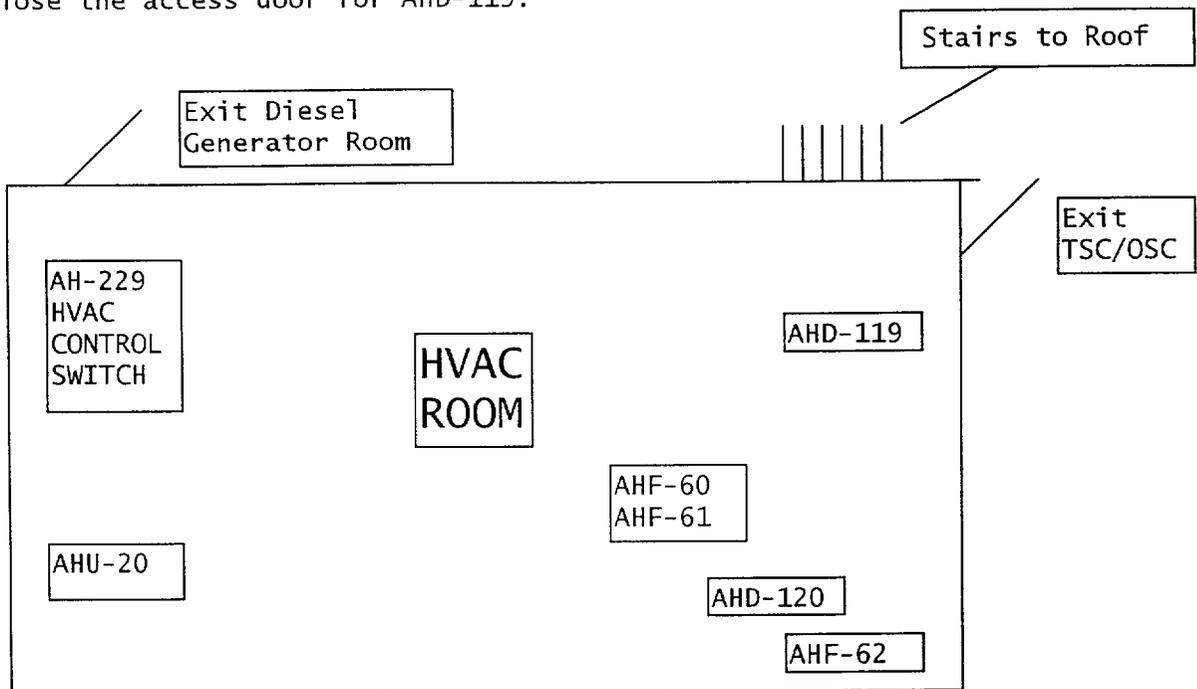
- _____ Exit TSC/OSC and proceed to roof over HVAC room.
- _____ Close and latch the goose neck for AHD-115, located on east side.
- _____ Duct tape around the access door seals and latches on AHD-115 to provide an additional protective barrier in order to prevent air in-leakage.
- _____ Close and latch the goose neck for AHD-116, located on east side.
- _____ Duct tape around the access door seals and latches on AHD-116 to provide an additional protective barrier in order to prevent air in-leakage.

_____ Return to the TSC/OSC.

RESTORATION

Perform the following actions to restore the emergency recirculation mode for the TSC/OSC:

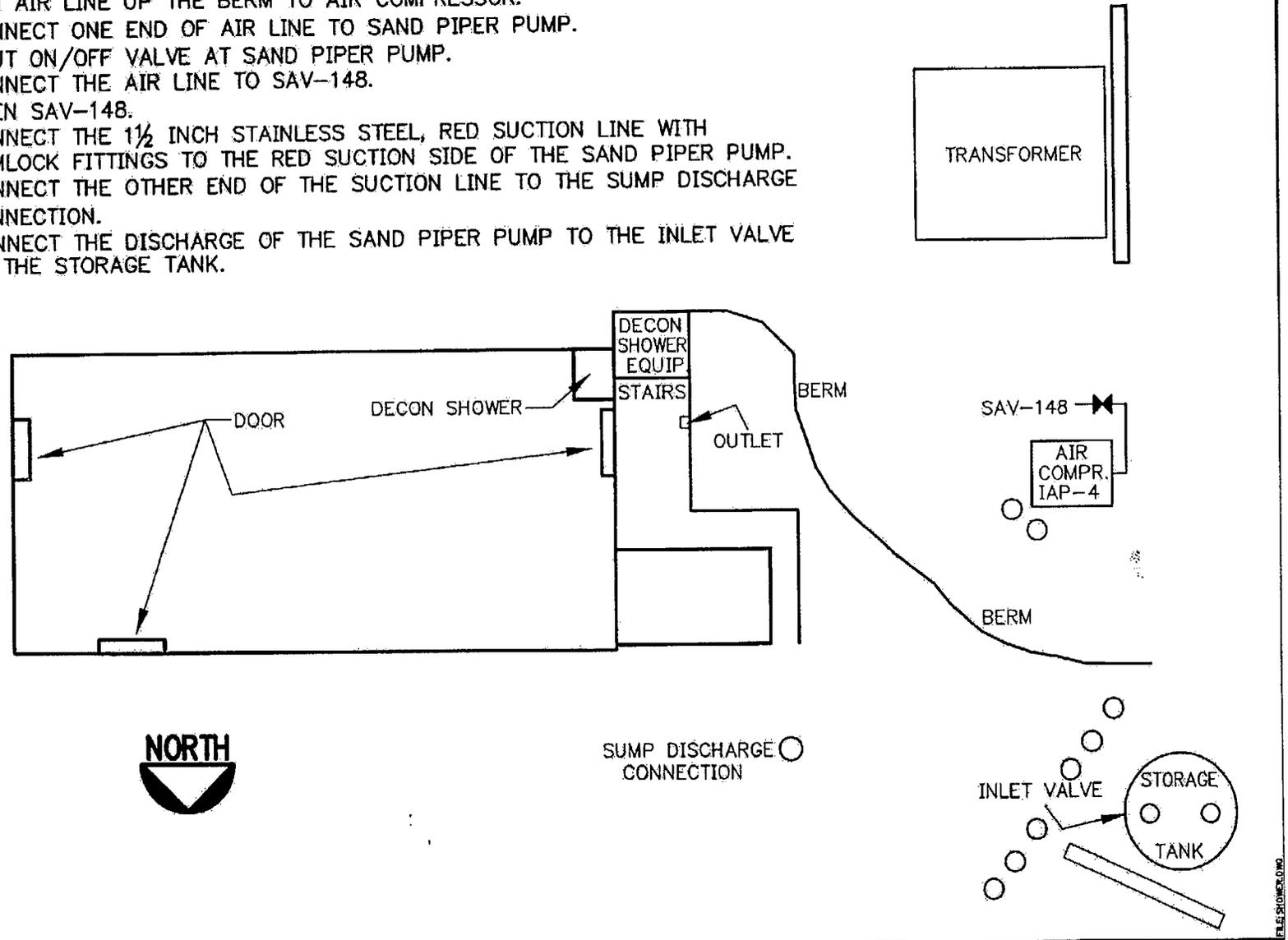
- _____ Remove the duct tape from the access door seals and latches on AHD-116 and AHD-115.
- _____ Unlatch and open the goose necks for AHD-116 and AHD-115.
- _____ Return to HVAC room and rotate the switch from the "EMERGENCY(2)" to the "NORMAL(1)" position on the emergency mode control panel (AH-229).
- _____ Verify AHD-120 is in the "CLOSED" position.
- _____ Close the access door for AHD-119.



GUIDANCE FOR PUMPING INTO SHOWER TANK

(EQUIPMENT LOCATED UNDER STAIRS AT WEST EXIT. BACKUP ELECTRICAL PUMP LOCATED IN DECON SHOWER)

1. RUN AIR LINE UP THE BERM TO AIR COMPRESSOR.
2. CONNECT ONE END OF AIR LINE TO SAND PIPER PUMP.
3. SHUT ON/OFF VALVE AT SAND PIPER PUMP.
4. CONNECT THE AIR LINE TO SAV-148.
5. OPEN SAV-148.
6. CONNECT THE 1½ INCH STAINLESS STEEL, RED SUCTION LINE WITH CAMLOCK FITTINGS TO THE RED SUCTION SIDE OF THE SAND PIPER PUMP.
7. CONNECT THE OTHER END OF THE SUCTION LINE TO THE SUMP DISCHARGE CONNECTION.
8. CONNECT THE DISCHARGE OF THE SAND PIPER PUMP TO THE INLET VALVE OF THE STORAGE TANK.





EMERGENCY RADIATION WORK PERMIT

EMERGENCY STATUS

Unusual Event	Date	Time	Site Area Emergency	Date	Time
Alert	Date	Time	General Emergency	Date	Time

PLANT STATUS OR CONDITION CAUSING EMERGENCY

RADIOLOGICAL STATUS

INSTRUCTIONS

1. NO ENTRY into controlled access areas unless a member of an emergency team. (Security remain at posts until relieved.)
2. Only personnel who are qualified emergency responders can be authorized for this ERWP.
3. Report any unusual dose rates, equipment damage, etc., to the Operational Support Center.
4. Specific radiological requirements are outlined on Emergency Team Authorization Form.
5. RMT member requirement to be on re-entry team can be waived by Health Physics Coordinator for stable or no radiological hazards.
6. OSC Health Physics Coordinator is authorized to fill out one ETA for RMT survey and monitoring activities up to and including 5 REM TEDE with attached list of RMT Members. This does not include EST members.
7. Perform activity as discussed in Pre-job Briefing.

SUBMITTED BY OSC HEALTH PHYSICS COORDINATOR

APPROVED BY/EMERGENCY COORDINATOR OR DESIGNEE

EMERGENCY RADIATION WORK PERMIT (ERWP) GUIDANCE

A. Purpose

To establish a blanket ERWP for use under emergency conditions. An ERWP is used in conjunction with the Emergency Team Authorization form.

B. Contents

1. Emergency Status - denotes current emergency classification level, updated as escalation in levels occur.
2. Plant Status or Condition Causing Emergency - the actual status of the plant including information on systems or equipment directly related to, or impacting radiological conditions.
3. Radiological Status - radiological status of CR-3 at the time of escalation of emergency.
4. Instructions - generic instructions for anyone involved with the emergency. Specific instructions are given on the ETA form.

C. Development and Approval

1. The OSC Health Physics Coordinator or designee completes this form and submits for review to the Dose Assessment Coordinator.
2. The Dose Assessment Coordinator reviews the permit and includes any additional information pertinent to the emergency.
3. The Emergency Coordinator or designee approves the ERWP.
 - a. This action authorizes the permit, AND
 - b. Automatically sets the exposure limit for personnel assigned to the ERWP to Emergency Dose Limit of 5 REM Total Effective Dose Equivalent.

PROCEDURE DEVELOPMENT AND REVISION RECORD

Procedure: EM0104

New Rev: 5

PRR#: 19358

Title: OPERATION OF THE OPERATIONAL SUPPORT CENTER

MINOR CHANGES

If Minor Changes are included, check the applicable box(es) and provide a list of affected steps.
The following corrections are incorporated throughout:

- | | |
|---|---|
| <input type="checkbox"/> Sentence Structure | <input type="checkbox"/> Redundant words or phrases |
| <input type="checkbox"/> Punctuation | <input type="checkbox"/> Abbreviations |
| <input type="checkbox"/> Capitalization | <input type="checkbox"/> Obviously incorrect units of measure |
| <input type="checkbox"/> Spelling | <input type="checkbox"/> Inadvertently omitted symbols (#, %, etc.) |
| <input type="checkbox"/> Organizational Changes: position titles,
department names, or telephone numbers | <input type="checkbox"/> Obvious step numbering discrepancies |
| | <input type="checkbox"/> Format |

The following corrections are incorporated in the step(s) indicated: "Throughout" is used in lieu of Step# if a specific change affects a large number of steps.

Correcting equipment nomenclature that does not agree with field labels or balance of procedure

Changing information that is obviously incorrect and referenced correctly elsewhere

Misplaced decimals that are neither setpoint values nor tolerances

Reference to a procedure when an approved procedure has taken the place of another procedure

Fixing branching points when it is clear the branching steps were originally intended but were overlooked or incorrectly stated due to step number changes

Adding clarifying information such as NOTES and CAUTIONS

Adding words to clarify steps, NOTES, or CAUTIONS which clearly do not change the methodology or intent of the steps

PROCEDURE DEVELOPMENT AND REVISION RECORD

Procedure: EM0104

New Rev: 5

PRR#: 19358

Title: OPERATION OF THE OPERATIONAL SUPPORT CENTER

NON-INTENT CHANGES

Changes are incorporated for the reasons provided. "Throughout" is used in lieu of Step # if a specific change affects a large number of steps. For new or cancelled procedures the reason is provided.

3.2.6	Added statement that a list of engineers is in the OSC file cabinet and the most current copy can be obtained through the WEB.
3.2.14	Added clarification that the Accident Assessment Coordinator determines priorities for OSC operators.
3.3.11	Deleted TSC Medical Representative responsibility to issue KI. This responsibility will remain in the TSC but transferred to a different position after CP&L closing.
3.4.3.h	Added tape recorder to list of equipment in TSC.
4.1.1.1 4.2.1.1	Clarified that radios are to be obtained from the Standard Cal Lab. 12 have been set aside for emergencies and one is to be given to the AAT.
4.1.2.5	Added that an ETA form is written for teams already in the field and for teams making a reentry. Clarification.
4.1.2.8 4.2.2.3	Clarified the team dispatched to the Control Complex remains in the Control Complex and takes direction from the OSC Manager. This has the team taking direction from the OSC Manager instead of the NSM. Corrective action for PC00-2377.
4.1.2.9	Added statement to update the Control Complex Repair team as needed. Comments from 8/30 drill
4.1.2.12.1	added words to ensure HP Tech is dispatched with ops personnel from the Control Room as needed
4.1.2.14 4.2.2.15 Enclosure 4	Made two steps to ensure post-job briefings are held and Team Leaders are directed to document on tape. This is for convenience if they do not want to write in log.
4.2.2.9	Changed "Direct and control" to "Maintain contact with" ERT repair teams outside the Control Complex
4.3.1.6	Added step for HP Coordinator to verify operability of communication links to the TSC Dose Assessment Coordinator. The use of phone and headset for this position should cut down on traffic to the TSC.
4.3.2.8	Reworded to assign an HP Tech to the Control Complex Repair Team for dispatch as needed. The previous sentence stated he was to perform repairs within the CC. HP Tech is in Control Complex to perform HP duties.

PROCEDURE DEVELOPMENT AND REVISION RECORD

Procedure: EM0104

New Rev: 5

PRR#: 19358

Title: OPERATION OF THE OPERATIONAL SUPPORT CENTER

4.5.1 - 4.5.1.4	Added clarification in NOTE that the Accident Assessment Coordinator should be aware of and agree to the dispatch of OSC operators. This position along with the EC sets priorities for the OSC operators. Changed 4.5.1.1 to a NOTE to meet Writer's Guide. Renumbered accordingly
Enclosure 2	Made statement that phone numbers were listed in EM-206 and on Emergency Team Rosters.
Enclosure 3, pg. 1	ETA form - Changed Dose Assessment Coordinator approval to OSC HP Coordinator approval for dose limits for entry up to and including 5 Rem. This saves time and eliminates approval of TSC Dose Assessment Coordinator for up to and including 5 REM. Clarified Emergency Dose Limits by removing "voluntary"
Enclosure 3, pg. 2	Revised instructions to clarify the OSC HP Coordinator can approve up to and including 5 REM for dose limits. Once the dose limit is >5REM, the EC or designee is required to approve the reentry and therefore the dose limit approval can be NA. Clarified under C.1 that team members prepare for dispatch prior to pre-job briefing. This allows teams to remain in the team room and prepare for dispatch prior to pre-job briefing that includes the HP Coordinator.
Enclosure 4.	Add step to determine scope of tasks and preplan work activities prior to pre-job briefing.
Enclosure 5	Clarify that the OSC Manager can assign someone to the PAX phone if establishing teams in the Alternate OSC.
Enclosure 8	Changed item 2 to state that only qualified emergency responders can be authorized under this ERWP. Since some emergency responders can work under the ERWP in non-respirator positions, the respiratory equipment statement was removed for clarification. Clarified in item 6 that activities up to and including 5 REM TEDE can be authorized by the OSC HP Coordinator.
4.6.2.2	Deleted last bullet from returning team responsibility. The Team Leader has the responsibility to do a post-job briefing and document the results of the dispatch. This was redundant to Team Leader functions in Enclosure 4.
Throughout	Changed several statement to meet Writers Guide - ie capitalization, WHEN/THEN statements, NOTES vs Step, REFER TO vs see.
4.2.2, 4.3.2, 4.4.2	Changed the NOTE from "personnel remaining on the Site" to "personnel at the Main Assembly Area" Clarification: Once evacuated, this is where the personnel will be located.
4.3.2.2	Added to Obtain EC or designee approval for ERWP. The EC can delegate approval of the ERWP.
4.6.1.1	Changed most of step to NOTE leaving only the instruction as step 4.6.1.1