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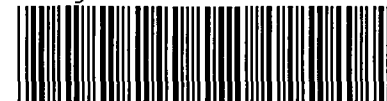
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CRYSTAL RIVER UNIT 3

EM-104

OPERATION OF THE OPERATIONAL SUPPORT CENTER (OSC)

REVISION 15

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1.0 PURPOSE [R1]

1.1 OSC Function

1. Provide instructions for the activation and operation of the Operational Support Center (OSC).
2. Provide a point of assembly for emergency response teams assisting the Technical Support Center (TSC) in managing repair and monitoring activities during an emergency.
3. Provide planning, briefings and dispatch of emergency team personnel to areas evacuated during emergency conditions and areas where the radiological conditions warrant.
4. This procedure is an Emergency Plan Implementing Procedure (EPIP) and any revisions must be carefully considered for emergency plan impact.

1.2 General Information

1. The Primary 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. The Alternate OSC is located on the 124' Elevation of the Control Complex and is used when conditions (radiological, weather-related, etc.) require evacuation of the Primary OSC. The Remote OSC is located at the SAB, a warehouse, the EOF or other location designated by the OSC Manager and is used during a Security Condition to provide for safety of the ERO staff and teams.
2. The OSC receives direction from the TSC concerning activities and priorities.
3. Notification for activation of the OSC is by any combination of activation of the Emergency Response Organization Notification System (ERONS) (automated phone calls, text messages and PA announcements) or manual callout. Enclosure 1 illustrates the layout for the OSC.
4. The Radiation Monitoring Teams, Sampling Team, Emergency Repair Team, Fire Protection, Planning, engineering and administrative support and additional Operations personnel are based and operate from the OSC.
5. The OSC maintains full accountability for personnel dispatched from the OSC.

2.0 REFERENCES

2.1 Developmental References

1. 10CFR50.47, Emergency Plans
2. 10CFR50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities
3. EM-102, Operation of the Technical Support Center
4. EM-103, Operation and Staffing of the CR3 Control Room During Emergency Classifications
5. EM-206, Emergency Response Organization Notification
6. EM-210A, Duties of the Radiation Monitoring Team: CR-3 and Energy Complex Personnel and Area Monitoring
7. EM-210B, Duties of the Radiation Monitoring Team: Environmental Sampling and Plume Tracking
8. HPP-409, Inventory and Availability of Emergency Supplies/Equipment
9. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-400-R-92-001, Environmental Protection Agency (October, 1996)
10. NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
11. Radiological Emergency Response Plan
12. **[R1]** NOCS 1031, Operation of the OSC
13. **[R2]** NOCS 1126, Emergency Kits
14. **[R3]** NOCS 24130, Alternate OSC Location
15. **[R4]** NOCS 24200, Emergency Kits
16. **[R5]** NOCS 24290, Environmental Survey Team Vehicle

3.0 DEFINITIONS

1. **Activation** - An ERO notification system message or manual callout that directs emergency response personnel to respond to their designated emergency response facility for staffing and operation.
2. **Emergency Response Team Roster** - 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. **Operational** – The OSC is operational when the emergency team personnel are available to support the TSC and equipment is assembled, the OSC Manager has assumed responsibility and authority for emergency repair activities and the OSC is executing its designated emergency response functions and tasks.
4. **Qualified** - Successfully completed appropriate emergency team training and currently listed on Emergency Response Team Roster.
5. **Re-entry** - The return of personnel to an area evacuated during an emergency condition. A re-entry may be made for any one of the following purposes: 1) search for unaccounted personnel, 2) perform monitoring, sampling, operations, or repairs to minimize or eliminate the source of the emergency, 3) perform the surveys needed to assess the radiological conditions and establish exclusion area boundaries, 4) perform rescue operations, and 5) save property.
6. **Security Condition** - Any Security Event as listed in the approved security contingency plan that constitutes a threat/compromise to site security, threat/risk to site personnel, or a potential degradation to the level of safety of the plant. A SECURITY CONDITION does **NOT** involve a HOSTILE ACTION.
7. **Self-Reading Dosimetry (SRD)** - Personal Ion Chamber (PIC) or Electronic Dosimeter (ED).
8. **Team Leader** - A qualified, emergency response member performing the lead responsibilities for a dispatched emergency team.

4.0 RESPONSIBILITIES

1. OSC Manager – Superintendent or Supervisor Maintenance reporting to the TSC Repairs Coordinator by managing the OSC to:
 - a. Perform duties as identified in Subsection 9.1.
 - b. Ensure OSC repair activities are performed in a safe and expeditious manner.
 - c. Coordinate with TSC staff to establish priorities for OSC activities and communicate results.
 - d. Maintain command and control of OSC activities.
 - e. Coordinate OSC dispatch efforts with appropriate OSC Coordinator as needed.

Section 6.0, Precautions, Limitations, and Notes (Cont'd)

2. OSC Maintenance Coordinator – Supervisor Maintenance or qualified Emergency Repair Team (ERT) member reporting to the OSC Manager to:
 - a. Perform duties as identified in Subsection 9.2.
 - b. Coordinate and plan maintenance emergency repair and dispatch efforts.
 - c. Provide technical and administrative direction for repair activities.
 - d. Ensure a log or tape recording of repair team activities is maintained.
3. OSC Health Physics Coordinator – Supervisor Radiation Control or qualified Radiation Monitoring Team (RMT) member reporting to the TSC Radiation Controls Coordinator to:
 - a. Perform duties as identified in Subsection 9.3.
 - b. Coordinate and plan RMT dispatch efforts and RMT support of other emergency response teams.
 - c. Report radiological information to the TSC Radiation Controls Coordinator and update the OSC Manager on relevant radiological conditions and team status.
 - d. Ensure habitability surveys, radiological and non-radiological, are periodically performed in the TSC/OSC.
 - e. Direct the issue of dosimetry and protective equipment as required and track emergency exposure.
 - f. Ensure emergency teams are briefed on radiological conditions and limitations.
 - g. Provide technical and administrative direction to HP personnel.
 - h. Coordinate overall radiological control of RMT activities according to EM-210A.
 - i. Maintain log or tape recording of significant RMT activities.
4. OSC Chemistry Coordinator - Any qualified Chief Nuclear Chemistry Technician or Sampling Team (ST) member reporting to the OSC Manager to:
 - a. Perform duties as identified in Subsection 9.4.
 - b. Coordinate and plan Sampling Team dispatch efforts.
 - c. Provide Chemistry information to the TSC Radiation Controls Coordinator and updates to OSC Manager as needed.
 - d. Provide technical and administrative support to Chemistry activities.
 - e. Provide support to obtain liquid and gas samples for core damage assessments.
 - f. Maintain log or tape recording of significant ST activities.

Section 6.0, Precautions, Limitations, and Notes (Cont'd)

5. Operations - ERT qualified Operator reporting to the OSC Manager to:
 - a. Perform duties identified in Subsection 9.5.
 - b. Provide operator support for OSC and TSC activities.
6. Administrative Support - as requested by OSC Manager to:
 - a. Maintain OSC Tracking Board and provide team status to TSC.
 - b. Provide administrative assistance to OSC Manager and OSC Coordinators as necessary.
7. Engineering Support - as requested by OSC Manager to:
 - a. 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.
 - b. Support the Main Control Room as needed either as part of the OSC or the TSC Accident Assessment Team.
8. Fire Assessment - Fire Protection designee reporting to the OSC Manager to:
 - a. Provide fire protection support relative to plant conditions and operations.
 - b. Brief TSC and OSC staff on fire-related conditions.
 - c. Request supplemental support of Site Emergency Response Coordinator at General Emergency via plant radio (Radio Channel 7 or appropriate talk group). Stage the ERC in the CR-3 Control Complex to assist with fire response, confined space rescue, high-angle rescue, and medical emergencies. Notify the TSC Security Coordinator to allow ERC access to CR-3.
 - d. Maintain log of activities.
9. Planning - as requested by OSC Manager to:
 - a. Assist with the planning of emergency repairs needed to support mitigation of the emergency.
10. Team Leaders perform the functions identified on Attachment 2, Team Briefing / Re-Entry Checklist.
11. Emergency Repair Team members repair equipment and facilities necessary to return the plant to safe condition.
12. Sampling Team members perform chemical or isotopic sampling and analysis.
13. Radiation Monitoring Team member responsibilities and functions are identified in EM-210A and EM-210B.
14. TSC Accident Assessment Coordinator. Maintains contact with the Main Control Room, determines priorities for OSC operators, and develops strategies for accident mitigation. Reports to Emergency Coordinator.
15. TSC Radiation Controls Coordinator. Updates and makes recommendations to the Emergency Coordinator on radiological and chemistry-related activities. Reports to the Emergency Coordinator.

Section 6.0, Precautions, Limitations, and Notes (Cont'd)

16. TSC Emergency Coordinator. Provides for overall coordination and direction of emergency response and authorizes re-entries and exposure limits in excess of 5 rem TEDE. Reports to the EOF Director when EOF becomes operational.
17. TSC Repairs Coordinator. Updates the Emergency Coordinator on Emergency Repair Team activities. Reports to the Emergency Coordinator.
18. Radiation Protection Sub-Unit maintains inventory of emergency kits as identified in Subsection 7.1.1.
19. Document Services / Plant Support maintain manuals, procedures, and drawings in the TSC/OSC.
20. HP Responders assist the Radiation Monitoring Teams in providing access control, in-plant / out-of-plant surveys, and personnel monitoring activities and report to OSC HP Coordinator or RMT Leader and take technical direction from an RMT member.

5.0 PREREQUISITES

None

6.0 PRECAUTIONS, LIMITATIONS, AND NOTES

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:

Dose Limit (Rem TEDE)	Activity	Condition
5	All	
10	Prevent serious injury, protect valuable property, prevent catastrophic incident	Lower dose NOT practicable
25	Life saving or protection of large populations	Lower dose NOT practicable
>25	Life saving or protection of 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 outside those addressed in the above Table, personnel exposure in excess of 5 rem TEDE may be authorized by the Emergency Coordinator with guidance from the TSC Radiation Controls 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.
2. Re-entry into any emergency evacuated areas must be authorized by the Emergency Coordinator or designee.
3. As a group, the re-entry team is knowledgeable in Radiation Protection procedures and has capabilities in Operations and Maintenance.
4. Maintain efforts to minimize exposure by ALARA practices.
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.
6. RMT members may be independently dispatched from the OSC to perform radiological surveys.
7. Emergency team members must be verified as qualified by reviewing the current Emergency Call Rosters.
8. Personnel making re-entries shall use portable survey instruments and personnel monitoring devices. RMT members accompanying other team personnel satisfy the requirement for entering the evacuated area using portable survey instruments.

Section 6.0, Precautions, Limitations, and Notes (Cont'd)

9. Emergency Operating Procedure (EOP) actions taken before the TSC is operational are exempt from the guidance of this procedure.
10. OSC Request Forms are initiated by the TSC Ringdown Communicator to document Main Control Room requests for most repair and operation activities. The TSC Radiation Controls Coordinator and TSC Repairs Coordinator approve the form and forward the form to the OSC for action. When the activity is complete, the TSC Ringdown Communicator provides feedback to the Main Control Room.
11. 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.
12. **IF** an exposure of 5 rem to the thyroid is received or greater than 25 rem to the thyroid is projected, **THEN CONSIDER** the administration of KI as directed by the TSC Radiation Controls Coordinator.
13. The TSC/OSC habitability boundary doors must remain tightly closed when the TSC/OSC is in the emergency recirculation mode, unless being used for ingress/egress. This is the inside door on the west end and the inside door adjacent to the Emergency Diesel Room door on the east end.
14. Each emergency team member is to report to Dosimetry before re-entry and upon completion of re-entry to verify dose margin and update individual doses records.
15. During Security events, emergency response team dispatch from the OSC / movement within the plant may need to be coordinated with the TSC Security Coordinator to ensure safety of team members.

7.0 SPECIAL TOOLS AND EQUIPMENT

7.1 OSC Equipment and Supplies

7.1.1 Emergency Kits [R2/R4]

NOTE: HPP-409 identifies the supplies contained in the following emergency kits.

1. TSC/OSC Emergency Supplies
2. Decontamination Supplies
3. Environmental Survey Supplies (2 kits located in Survey Vehicle) [R5]

7.1.2 Drawing / Procedure / Supply Files

1. Selected plant drawings, Plant Procedures and administrative supplies are contained in file cabinets located in the OSC. Other plant drawings are available on aperture cards in the TSC/OSC Work Area.

7.2 Equipment

1. Commercial Telephone
2. Microwave System
3. Public Address Exchange System (PAX)
4. Portable Transceivers set to appropriate talk groups (plant radios)
5. Electric pump
6. Portable Continuous Air Monitor
7. Tape recorder
8. Tool Box containing basic tools
9. Scrubs for modesty garments

8.0 ACCEPTANCE CRITERIA

None

9.0 INSTRUCTIONS

1. The steps under this section may be performed in any sequence.
2. Check the listing below for OSC position and refer to the designated page for instructions. Positions other than those listed below perform job functions as needed to support OSC activities and as identified under the responsibility section.

IF YOUR OSC POSITION IS:

REFER TO PAGE:

OSC Manager	12
OSC Maintenance Coordinator	15
OSC Health Physics Coordinator	17
OSC Chemistry Coordinator	21
OSC Operations Personnel	22
Emergency Team Members	23
Emergency Team Leader	Attachment 2

9.1 OSC Manager

9.1.1 Activation

1. OBTAIN plant radios set to the appropriate talk groups for emergency use.
2. REPORT to the OSC upon the declaration of an Alert, Site Area Emergency or General Emergency.
3. BADGE-IN at TSC/OSC Card reader.
4. NOTIFY TSC Repairs Coordinator of your arrival.
5. OBTAIN procedures as needed from Procedure file cabinet.
6. VERIFY operability of communication links to the TSC Repairs Coordinator.
7. REPORT equipment problems/readiness to the TSC Repairs Coordinator.
8. The OSC is operational as soon as it is staffed with emergency team personnel available to support the TSC.

Subsection 9.1, OSC Manager (Cont'd)

9.1.2 Operation

1. DETERMINE status of repair activities already in progress and NOTIFY TSC Repairs Coordinator of repair teams in the field.
2. PROVIDE advice to the TSC Repairs Coordinator on plant repairs and corrective actions as appropriate, determining prioritization of repair activities with the TSC Repairs Coordinator.
3. COORDINATE repair activities already in progress with OSC Maintenance Coordinator and ENSURE RMT coverage is provided as needed.
4. COORDINATE Sampling Team (ST) activities already in progress with OSC Chemistry Coordinator and ENSURE RMT coverage is provided as needed.
5. ENSURE an Emergency Team Authorization (ETA) form is written for emergency response teams in the field and teams dispatched from the OSC.
6. APPROVE appropriate ETAs <5 rem before team dispatch. CONSIDER having team members dressed out and dosimetry issued before need for dispatch once radiological conditions warrant.
7. INITIATE log of activities to document times and results of significant OSC activities. As a minimum, include time of specific TSC requests, and time of results provided back to TSC.
8. AUGMENT OSC staff as needed (refer to Enclosure 2 and/or EM-206, Emergency Response Organization Notification), and when available, DISPATCH appropriate team members to the Control Complex when available, as the Control Complex Emergency Repair Team. This team remains in the Control Complex taking direction from the OSC Manager as prioritized by the TSC.
9. CONDUCT briefings, as needed, with OSC personnel to ensure awareness of plant conditions. UPDATE Control Complex Repair Team as needed.
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.
11. **WHEN** the activity is planned and the appropriate Team Leader identified, **THEN ENSURE** briefings with Health Physics are conducted according to Attachment 2, Team Briefing / Re-Entry Checklist.
12. COORDINATE OSC Operator dispatch with the TSC Repairs Coordinator to ensure the TSC Accident Assessment Coordinator is aware of dispatch.
13. **IF** Operations personnel are dispatched from the Main Control Room, instead of from the OSC, **THEN DISPATCH** an RMT member / HP Technician with them as needed, **AND ENSURE** they are informed of the briefing discussion.
14. ENSURE teams hold post-job briefings with respective coordinators as appropriate upon return to the OSC and DOCUMENT the results in logs or on tape.
15. UPDATE the TSC Repairs Coordinator of OSC activities (Team dispatch, problems and activity results as appropriate)

Subsection 9.1, OSC Manager (Cont'd)

16. COORDINATE a shift relief rotation for OSC personnel as appropriate and PROVIDE shift turnover to the on-coming shift.

9.1.2, Operation (Cont'd)

17. CONSIDER relocating additional team members to 124' elevation level of the Control Complex before evacuation of the Energy Complex.
18. INITIATE Alternate OSC relocation according to Attachment 3, Contingency Plan for Securing OSC and Establishing an Alternate OSC if requested by Emergency Coordinator or designee. [R3].
19. If the event is based on a Security Threat where personnel safety is required, CONSIDER designating a Remote OSC for management team and support functions. The location could be the SAB, a warehouse, the EOF or other location where communications could be established with the Repairs Coordinator.
20. UPDATE OSC Team Status Board and PROVIDE information to the TSC.

9.1.3 OSC Request Forms

1. **WHEN** an OSC Request Form is received from the TSC, **THEN** DISPATCH appropriate team according to this procedure.
2. **IF** the OSC Request Form has detailed instructions, **THEN** CONSIDER attaching a copy to the Emergency Team Authorization form.
3. REFERENCE the OSC Request Form number on the Team Status Board.
4. Upon completion of the task / activity, NOTIFY the TSC Ringdown Communicator to provide feedback to the Main Control Room on the status of the request.

9.1.4 Deactivation

1. DEACTIVATE the OSC, when directed by the Emergency Coordinator or designee.
2. RETURN equipment and supplies to storage location.
3. ASSEMBLE logbooks and any other documentation generated during the emergency for collection by Emergency Preparedness personnel.

9.2 OSC Maintenance Coordinator

9.2.1 Activation

1. OBTAIN plant radios set to appropriate talk groups for emergency use.
2. BADGE-IN at TSC/OSC Card reader.
3. NOTIFY OSC Manager of your arrival.
4. OBTAIN tape recorders, valve locator books, system one line switching diagram, plant layout floor maps from file drawer as needed.
5. **IF** emergency occurs during off-hours, **THEN** NOTIFY an adequate number of qualified ERT members to report to OSC. REFER TO Enclosure 2 for staffing level and Emergency Response Team Roster, located in file drawer, for qualified members.
6. UNLOCK toolboxes in OSC Team Room and the electric Pump located in decon shower / sink area using the key located in the file drawer.

9.2.2 Operation

<p>NOTE: Evacuated maintenance personnel at the Main Assembly may be reached by contacting the Main Assembly Area Supervisor using the phone number from the Emergency Response Facility Telephone Directory.</p>
--

1. IDENTIFY Emergency Repair Team (ERT) members working on emergency activities in the plant in support of the emergency using the Team Status form or equivalent to the OSC Manager and ENSURE the personnel are listed on an Emergency Team Authorization form (Attachment 1, Emergency Team Authorization).
2. VERIFY each ERT member is currently ERT qualified. (listed on ERT Emergency Response Team Roster)
3. **WHEN** an additional electrician, I/C technician, and HVAC mechanic are available, **THEN** ASSIGN them to the Main Control Room. This Control Complex Emergency Repair Team takes direction from the OSC Manager for repairs within the Control Complex.
4. COORDINATE equipment repair priorities with OSC Manager.
5. **IF** it is necessary to become a Team Leader for a repair activity, **THEN** NOTIFY the OSC Manager of the need for a replacement, **OR** APPOINT the OSC Manager to act on your behalf.
6. Upon request from the OSC Manager, IDENTIFY a Team Leader for the repair team activity and PLAN the repair.
7. ASSEMBLE appropriate team personnel and PERFORM a briefing according to Attachment 2, Team Briefing / Re-Entry Checklist. The Team Leader may plan the repair and perform the briefing.
8. ENSURE emergency repair teams have proper procedures, tools, and protective equipment before entry into the plant.
9. MAINTAIN contact with and DIRECT Emergency Repair Teams.

Subsection 9.2, OSC Maintenance Coordinator (Cont'd)

9.2.2, Operation (Cont'd)

10. IF it is determined that the TSC/OSC is to be put into emergency recirculation mode, **THEN COMPLETE** Attachment 4, TSC/OSC Emergency Recirculation Mode.
11. ESTABLISH the Decontamination Shower Storage Tank sump connections for processing of contaminated water as needed. The electric sump pump is in the decontamination shower / sink area. REFER TO Attachment 5, Instructions for Hooking-Up and Pumping into Decontamination Shower Storage Tank for guidance on set-up.
12. IDENTIFY parts, tools, and support needs **NOT** available on-site to the Materials Manager in the EOF.
13. CONSIDER heat stress and crew rotation needs to supplement manpower requirements.
14. CONDUCT a post-job briefing with the returning team.
15. DIRECT the Team Leader to document the results of the repair on tape or in a log book for each emergency repair upon return to the OSC. RECORD sufficient information to be able to document work activity after the emergency.

9.3 OSC Health Physics Coordinator

9.3.1 Activation

1. OBTAIN HP master key from HP Office for use by re-entry teams, and REPORT to the OSC upon the declaration of an Alert, Site Area Emergency or General Emergency.
2. BADGE-IN at TSC/OSC Card reader.
3. NOTIFY OSC Manager and TSC Radiation Controls Coordinator of your arrival.
4. OBTAIN procedures as needed.
5. IF emergency occurs during off hours, **THEN** NOTIFY an adequate number of qualified RMT members to report to the OSC. REFER TO Enclosure 2 for staffing level and the Emergency Response Team Roster, located in file drawer, for qualified members.
6. VERIFY operability of communication links to the TSC Radiation Controls Coordinator.

9.3.2 Operation

NOTE: RMT members dispatched to the Main Assembly Area for survey of personnel may be reached by contacting the Main Assembly Area Supervisor using the phone number from the Emergency Response Facility Telephone Directory.

1. COORDINATE the initiation of an Emergency Radiation Work Permit (ERWP) with the Radiation Controls Coordinator and according to Attachment 6, Emergency Radiation Work Permit and Enclosure 5, ERWP Guidance.
2. OBTAIN EC or designee approval for ERWP.
3. LIST RMT members 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. 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.
5. VERIFY each RMT member is currently qualified (listed on RMT Emergency Response Team Roster).
6. INITIATE periodic CO₂/O₂ sampling according to EM-210A, Section 4.2 when the TSC/OSC is in the emergency recirculation mode and occupancy exceeds 50 personnel.
7. ESTABLISH controlled access into radiation areas as required by procedures.
8. ASSIGN when available, an RMT member to the Control Complex Emergency Repair Team to take direction from the OSC HP Coordinator as needed.
9. UPDATE the large OSC survey maps as needed. (i.e. radiological data, wind direction).

Subsection 9.3, OSC Health Physics Coordinator (Cont'd)

9.3.2, Operation (Cont'd)

10. COMPLETE items listed on Enclosure 1 of EM-210A, Radiation Monitoring Team Checklist.
11. ENSURE TLDs are provided for all team members that report to the OSC and for teams already dispatched.
12. PROVIDE OSC Manager with periodic updates on radiological conditions.
13. Upon request from the TSC, IDENTIFY a Team Leader and PLAN identified radiological monitoring or survey activity.
14. ASSEMBLE RMT personnel and ensure an appropriate briefing is held. CONSIDER performing a "generic" briefing for all team members at OSC.
15. WRITE an Emergency Team Authorization (ETA) form (Attachment 1 and Enclosure 4) for emergency response teams in the field and teams dispatched from the OSC.
16. IF Operators are **NOT** available at the TSC/OSC, **AND** Operators are dispatched from the Control Room to perform an action or join a reentry team from the OSC, **THEN** COORDINATE a briefing or meeting place with the OSC.
17. ASSIGN an RMT member for each re-entry, when conditions warrant, to assist in preparation and job coverage.
18. UPDATE responding emergency team members on changing radiological conditions affecting the team.
19. MAINTAIN awareness of OSC personnel radiation exposure status and INFORM the TSC Radiation Controls Coordinator of personnel approaching 5 rem (TEDE) exposure limits.
20. INFORM the TSC Radiation Controls Coordinator if radiological conditions are such that Security personnel should prepare for suspension of safeguards in areas affected by radiological releases.
21. INFORM the TSC Radiation Controls 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 thyroid.
22. OBTAIN KI located in TSC Cabinet H (Main Conference Room) and DISTRIBUTE to OSC personnel when authorized by Section 9.3.3.
23. UPDATE the TSC Radiation Controls Coordinator of RMT activities and dose rate survey results. DOCUMENT times of significant dose rate results.

9.3.3 Administration of Potassium Iodide (KI)

CAUTION

KI distribution is a supplemental strategy to be considered along with other protective measures. The use of KI can significantly reduce the number of thyroid nodules resulting from the ingestion of radioiodines; however, it has **NO** impact on immediate health effects and only a moderate impact on delayed cancer deaths.

1. Upon receipt of in-plant and/or offsite radioiodine data, the TSC Radiation Controls Coordinator DETERMINES the need for KI and AUTHORIZES its use as follows:
 - a. **IF** radioiodine will be a contributor to the release dose, **THEN** KI should be considered for the worker.
 - b. KI is 90% effective in blocking the uptake of radioiodine by the thyroid if administered within the first hour of uptake and is 50% effective if administered within four (4) hours after uptake.
 - c. KI remains 80% effective in blocking the uptake of radioiodine when taken as long as 20 hours **before** the exposure.
 - d. Minimal benefit is obtained if KI is administered >10-14 hours after exposure and therefore should **NOT** be administered beyond this exposure period.

Subsection 9.3, OSC Health Physics Coordinator (Cont'd)

9.3.3 Administration of Potassium Iodide (KI) (Cont'd)

2. ISSUE the KI as follows:

CAUTION

Potassium Iodide shall **NOT** be administered to individuals who have known allergies to iodide substances, such as shellfish, or who have medical conditions, such as Graves' disease, thyroid nodules, or Hashimoto's thyroiditis due to the potential severe side effects.

- a. The OSC HP Coordinator BRIEFS personnel on the use and consequences of KI before distribution. This briefing is **NOT** required for personnel screened annually as part of continuing training. USE the package insert or Enclosure 3, KI CONSUMER Package Insert.

NOTE: Authorization for the distribution of Potassium Iodide (KI) may be approved verbally for Environmental Survey Teams.

- b. COMPLETE Attachment 7 (Potassium Iodide Administration Form).
- c. The TSC Radiation Controls Coordinator AUTHORIZES the administration of KI by signing Attachment 7, Potassium Iodide Administration Form, and NOTIFIES the Emergency Coordinator that KI was administered to ERO members. This may be accomplished during a facility update briefing.

NOTE: Expired KI tablets as indicated by the manufacturer's recommendations shall **NOT** be issued.

- d. PROVIDE one 130 mg tablet to each individual who is to receive KI.
- e. CONTINUE DISTRIBUTING one 130 mg KI tablet daily for a minimum of three days (if exposed to radioiodines) but STOP distributing tablets at 10 days unless approved by the company's designated physician.
- f. IF Emergency Response Organization (ERO) members have sensitivity to KI, **THEN** do **NOT** administer KI or dispatch the team member where radioiodine is a major contributor to the release dose.
- g. RETURN completed records to the TSC Radiation Controls Coordinator.
- h. PERFORM follow-up whole body counts and bioassay analysis on those emergency workers using thyroid-blocking agents as determined by the company's designated physician.
- i. FORWARD completed documents to the TSC Radiation Controls Coordinator, as applicable, who reviews and submits all records to Document Services.
- j. CONTACT the company's designated physician and request follow-up care and definitive guidance concerning KI administration.

9.4 OSC Chemistry Coordinator

9.4.1 Activation

1. REPORT to the OSC and take a plant radio, if possible, upon the declaration of an Alert, Site Area Emergency or General Emergency
2. BADGE-IN at TSC/OSC Card reader.
3. NOTIFY OSC Manager and TSC Radiation Controls Coordinator of your arrival.
4. OBTAIN procedures as needed.
5. IF emergency occurs during off hours, **THEN NOTIFY** an adequate number of qualified Sampling Team (ST) members to report to the OSC. REFER to Enclosure 2 for staffing level and the Emergency Response Team Roster, located in file drawer, for qualified members.

9.4.2 Operation

NOTE: Evacuated Chemistry personnel at the Main Assembly Area may be reached by contacting the Main Assembly Area Supervisor using the phone number from the Emergency Response Facility Telephone Directory.

1. IDENTIFY ST members in the plant supporting the emergency to the OSC Manager and ENSURE they are listed on an Emergency Team Authorization (ETA) form (Attachment 1, Emergency Team Authorization).
2. VERIFY each ST member is currently ST qualified (listed on ST Emergency Response Team Roster).
3. COORDINATE dispatch of ST with OSC Manager.
4. ESTABLISH log of activities documenting time TSC requests chemistry samples, time sample pulled and time results given to TSC.
5. IF it is necessary to become Team Leader for Sampling Team, **THEN NOTIFY** the OSC Manager of the need for a replacement, **OR APPOINT** the OSC Manager to act as coordinator.
6. Upon request for Sampling Team, IDENTIFY a Team Leader and PLAN the activity.
7. ASSEMBLE appropriate team personnel and PERFORM a briefing according to Attachment 2, Team Briefing / Re-Entry Checklist.
8. PROVIDE technical and administrative support to Chemistry activities.
9. ENSURE the ST continues to perform chemical or radiological liquid and gas samples for core damage assessments as requested.
10. MAINTAIN communication with the TSC Radiation Controls Coordinator, providing updates on ST activities as appropriate.
11. MAINTAIN contact with dispatched ST.
12. PROVIDE sample results (Attachment 2 of CH-632) to the TSC Radiation Controls Coordinator for core damage estimation and dose projection.
13. CONDUCT a post-job briefing and DOCUMENT sample results.

9.5 Operations Personnel

9.5.1 Activation/Operation

NOTES:

1. 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 Main Control Room / Accident Assessment activities.
2. 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.

1. NOTIFY the OSC Manager **AND** TSC Accident Assessment Coordinator of your arrival.
2. COORDINATE activities with OSC Manager and ENSURE before dispatch from the OSC you are briefed according to Attachment 2, Team Briefing / Re-Entry Checklist, and FOLLOW instructions for Emergency Teams.
3. When possible, MONITOR Accident Assessment Ringdown and provide updates of plant conditions to OSC Manager.
4. REFER to EM-103, Enclosure 1 for operator dispatch guidance, as necessary.

9.6 Emergency Team Members

9.6.1 Activation

NOTE: Emergency team responders, unless pre-identified to report to an Emergency Response Facility, must report to appropriate Local Assembly Area during an Alert declaration. For on-shift personnel performing assigned actions to mitigate the emergency, they may continue with the assigned duties unless evacuated and listen for further instructions over the PA system.

1. REPORT to the OSC upon assignment to respond as an emergency team member.
2. REPORT directly to the OSC for assignment as an emergency team member upon the declaration of a Site Area Emergency or General Emergency.
3. BADGE-IN at TSC/OSC Card reader.
4. NOTIFY appropriate OSC Coordinator of your arrival.
5. REMAIN in OSC Team room until requested for emergency response.
6. FOLLOW instructions of respective OSC Coordinator or OSC Manager.

9.6.2 Operation

1. Upon formation of an emergency team, the following occurs:
 - a. The Radiation Monitoring Team members will:
 - 1) COMPLETE the Emergency Team Authorization form (Attachment 1 and Enclosure 4) according to the requirements of the Emergency RWP (Attachment 6 and Enclosure 5) and any instructions stated during the briefing.
 - 2) ENSURE team members follow the instructions stated on the ERWP and ETA.
 - 3) REPORT any problem or hazard encountered along the route traveled or during the mission of that team.
 - 4) 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 and re-locate to a safe area or find another communication systems to re-establish communications with the OSC.
 - 5) UPDATE team member dose records.
 - 6) PERFORM radiological duties, as required, according to EM-210A.

Subsection 9.6, Emergency Team Members (Cont'd)

9.6.2 Operation (Cont'd)

CAUTION

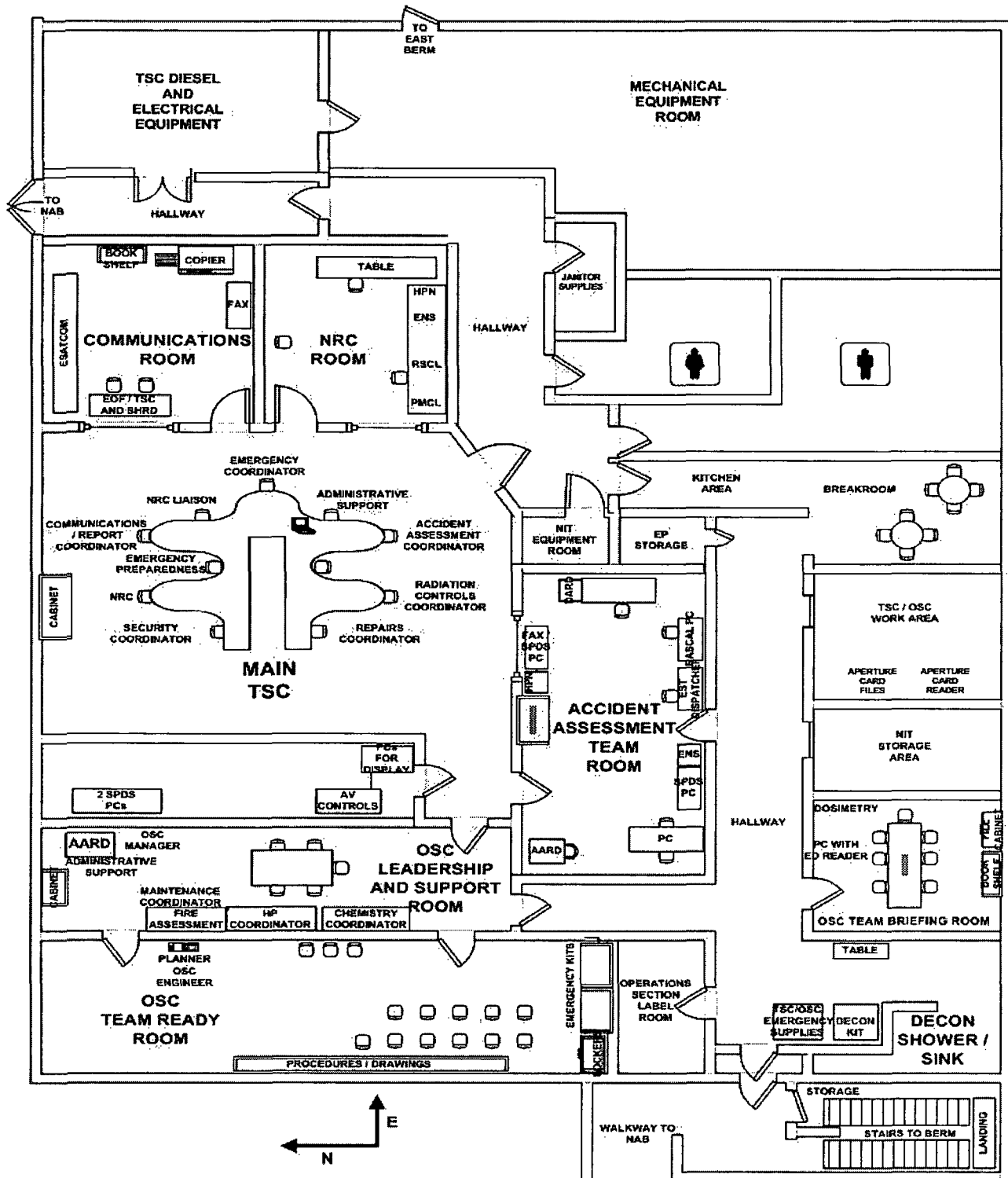
Deviating from a planned route, unless specifically directed due to unanticipated conditions, rescue, or to perform an activity that would minimize the emergency condition, could result in personnel injury or increased radiological dose.

- b. The responding emergency team will:
- 1) ATTEND briefing according to Attachment 2, Team Briefing / Re-Entry Checklist.
 - 2) OBTAIN respiratory devices, dosimetry, protective clothing, and portable survey instruments required by the Emergency Team Authorization.
 - 3) RE-ZERO dosimetry as needed.
 - 4) PROCEED to designated area following the pre-determined route, observing all written and/or verbal precautions.
 - 5) PERFORM designated work per written procedures or as discussed in briefing.
 - 6) Routinely EVALUATE exposures during the re-entry as directed by the RMT member or Emergency team Authorization form.
 - 7) OBTAIN as much information as possible along the route, such as physical plant conditions, equipment damage or radiological data.
 - 8) RETURN to point of departure via the same predetermined route taken above unless given other instructions.
 - 9) RETURN to the OSC after completion of assigned tasks and FOLLOW the directions of the RMT member at the control point.

10.0 RECORDS

No records are generated by this procedure.

PRIMARY OSC FLOOR PLAN
(Recommended Layout)



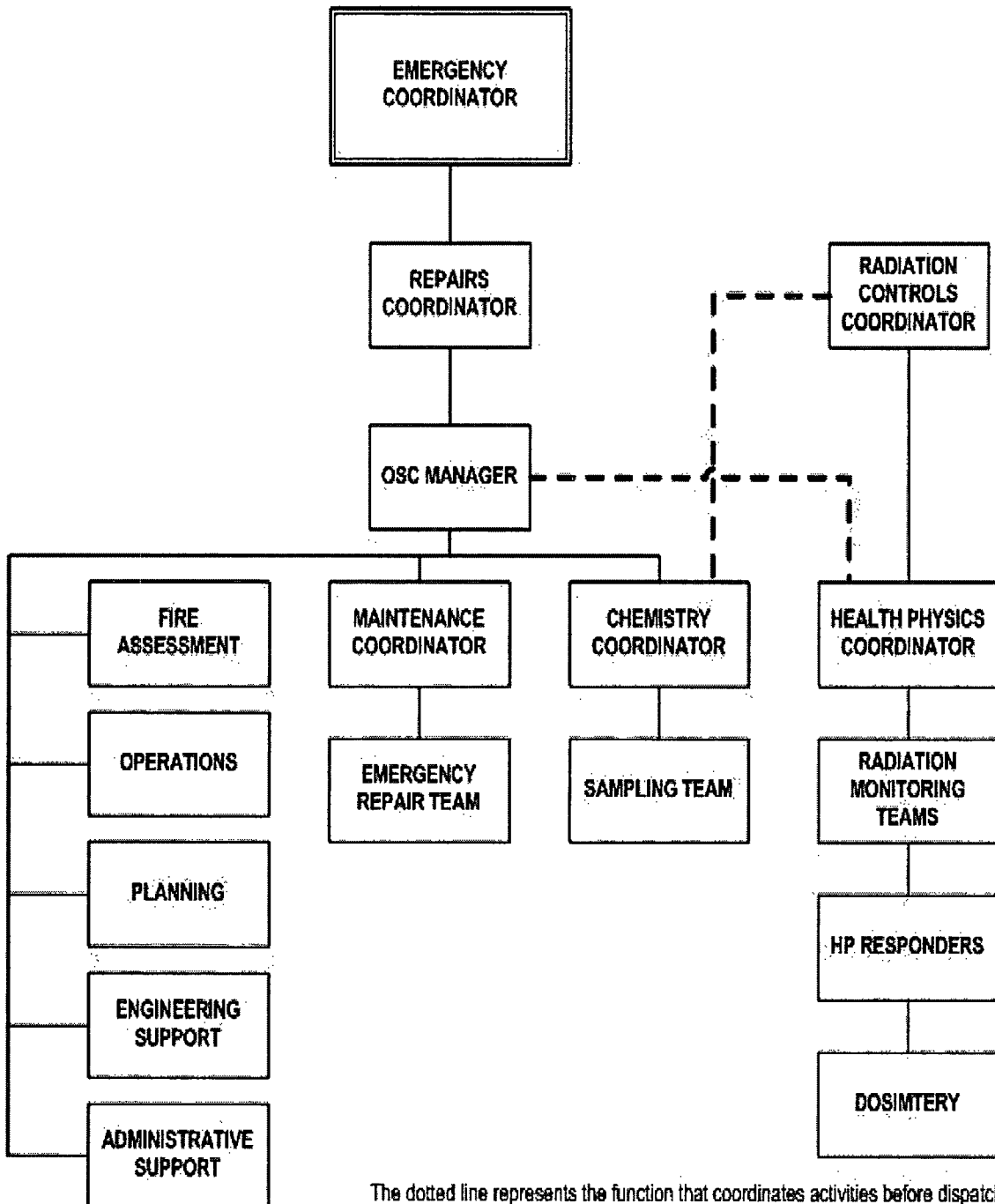
OSC STAFFING LEVELS

(Telephone numbers listed in Emergency Telephone Directories and on Emergency Team Rosters.
Engineering contact list in OSC file drawer "E")

Emergency Response Teams	Required Coverage		Recommended Additional
	30 minute	60 minute	
Radiation Monitoring Teams (Perform in-plant Surveys)	6*	6*	
Sampling Team (chemistry / radiochemistry)		1	1
Emergency Repair Team			
• Electrical	1	1	
• Instrument & Controls Technician	1		
• Mechanical		1	1
Operators (when available and/or released from the MCR)		1	1
OSC Manager			1
OSC Health Physics Coordinator			1
OSC Chemistry Coordinator			1
OSC Maintenance Coordinator			1
Fire Assessment			1
Planning			1
Administrative Support			1
Engineer (Fuel or Engineering support as needed)		1	
Fire Brigade (and for rescue and as needed)	5	5	

* Three 30-minute positions and three 60-minute positions can be HP Responders.

OSC ORGANIZATION CHART



The dotted line represents the function that coordinates activities before dispatch

KI CONSUMER PACKAGE INSERT

NDC 51803-001-01

iosatTM**INDICATIONS:
THYROID BLOCKING IN A
RADIATION EMERGENCY ONLY.****iosat**

(Potassium Iodide Tablets, U.S.P., 130mg) (Pronounced pee-TASS-e-um-EYE-oh-dyed) • 14 tablets per package



Drug Facts	
Active Ingredients (in each tablet) Potassium iodide 130mg	Purpose Thyroid blocking
<p>Use helps prevent radioactive iodine from getting into the thyroid gland during a nuclear radiation emergency. Use along with other emergency measures recommended by public officials.</p>	
<p>Warnings</p> <p>Allergy alert: Iodine may cause an allergic reaction with one or more of the following symptoms:</p> <ul style="list-style-type: none"> •shortness of breath or wheezing •skin rash •trouble breathing, speaking or swallowing •fever and joint pain <p>Do not use if you have</p> <ul style="list-style-type: none"> •ever had an allergic reaction to iodine •nodular thyroid disease with heart disease •hypocomplementemic vasculitis •dermatitis herpetiformis <p>Stop use and ask a doctor if you have</p> <ul style="list-style-type: none"> •allergic reaction. Get medical help right away if you have trouble breathing, speaking or swallowing; shortness of breath; wheezing; swelling of the mouth, tongue or throat; or rash. •irregular heart or chest pain. Get medical help right away. •swelling of the hands or feet, fever or joint pain. <p>Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.</p>	
<p>Directions</p> <p>•use as directed by public officials in the event of a nuclear radiation emergency</p> <p>•do not take more than 1 dose in 24 hours</p> <p>•tablets can be whole or crushed and mixed in milk, baby formula, water, orange juice, flat soda like cola, or raspberry syrup. The liquid mixture should be given to infants, young children, and others who cannot swallow tablets; see consumer package insert on how to make a liquid mixture.</p>	
<p>Adults over 18 years</p> <p>1 tablet (whole or crushed) daily (130mg)</p>	<p>Children over 12 years to 18 years</p> <p>1 tablet (whole or crushed) daily (130mg)</p>
<p>Children over 12 years to 18 years who weigh at least 150 pounds</p> <p>1/2 tablet (whole or crushed) daily (65mg)</p>	<p>Children over 12 years to 18 years who weigh less than 150 pounds</p> <p>1/2 tablet (whole or crushed) daily (65mg)</p>
<p>Children over 3 years to 12 years</p> <p>1/2 tablet (whole or crushed) daily (65mg)</p>	<p>Children over 1 month to 3 years</p> <p>32.5mg daily as directed in the consumer package insert</p>
<p>Babies at birth to 1 month</p> <p>16.25mg daily as directed in the consumer package insert</p>	<p>If pregnant, breastfeeding, have a baby up to 1 month of age, or have thyroid disease (except nodular thyroid disease with heart disease), take as directed above and contact a doctor as soon as possible</p>
<p>Other Information</p> <ul style="list-style-type: none"> •store at 20-25° C (68-77°F) •keep dry and foil intact •protect from light •do not throw away consumer package insert 	
<p>Inactive Ingredients.....magnesium stearate, microcrystalline cellulose, silica gel, sodium thiosulfate</p>	
<p>Questions or comments? Call toll free 1-866-463-6754</p>	
<p>Distributed by:</p> <p>ANBEX INC. 530 Morris Ave. Springfield, NJ 07081 www.anbex.com</p>	

Taking iodide, in rare cases, may cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter). Symptoms of an overactive thyroid gland may include an irregular heart beat and chest pain. Patients with thyroid disease are more likely to get these side effects. Babies under 1 month of age are more likely to get an underactive thyroid gland (hypothyroidism).

WHAT TO DO IF SIDE EFFECTS OCCUR

Stop taking KI and call a doctor if you have one or more of the following symptoms:

- swelling of the face, hands or feet
- fever and joint pain
- skin rash

Stop taking KI and get medical help right away if you have one or more of the following symptoms:

- trouble breathing, speaking or swallowing
- shortness of breath or wheezing
- swelling of the lips, tongue or throat
- irregular heart beat or chest pain

HOW SUPPLIED

Potassium iodide tablets, USP. Packages of 14 tablets. Each white, round, cross-scored tablet contains 130 mg potassium iodide. Store at 20-25° C (68-77° F). Keep dry and foil intact.

Distributed by:

ANBEX INC.
530 Morris Ave.
Springfield, NJ 07081
www.anbex.com

SH905-1

KI CONSUMER PACKAGE INSERT (Continued)

Consumer Package Insert

IOSAT™

(Potassium Iodide Tablets USP, 130 mg)
(Abbreviated KP)

Take potassium iodide (KI) only when public officials tell you. In a nuclear radiation emergency, radioactive iodine could be released into the air. KI protects only the thyroid gland from uptake of radioactive iodine. Therefore, KI should be used along with other emergency measures that will be recommended to you by public officials. If you are told to take this medicine, take it 1 time every 24 hours. Do not take it more often. More KI will not help you. Too much KI may increase the chances of side effects. Do not take this medicine if you know you are allergic to iodine (see SIDE EFFECTS below).

DESCRIPTION

Each white, round, cross-scored—the name IOSAT stamped on one side—tablet contains 130 mg of potassium iodide.

INDICATIONS

IOSAT (Potassium Iodide Tablets, USP) is a thyroid blocking medicine that is used in a nuclear radiation emergency only.

DIRECTIONS FOR USE

Use only as directed by public officials if a nuclear radiation emergency happens.

Dose:

Adults over 18 years	1 tablet (whole or crushed) every day (130 mg)
Children over 12 years to 18 years who weigh at least 150 pounds	1 tablet (whole or crushed) every day (130mg)
Children over 12 years to 18 years who weigh less than 150 pounds	½ tablet (whole or crushed) or 4 teaspoonfuls every day (65mg)
Children over 3 years to 12 years	¼ tablet (whole or crushed) or 2 teaspoonfuls every day (32.5mg)
Children over 1 month	2 teaspoonfuls every day (16.25 mg)
Babies at birth to 1 month	1 teaspoonful every day (16.25 mg)

Tablets can be crushed and mixed in many liquids. To take the tablet in liquid solution, use dosing directions under Making a Potassium Iodide Liquid Mixture.

Take KI every day (every 24 hours) as directed by public officials. Do not take more than 1 dose in 24 hours. More will not help you. Too much medicine may increase the chances of side effects.

Making a Potassium Iodide Liquid Mixture:

- Put one 130 mg KI tablet into a small bowl and grind it into a fine powder using the back of a metal teaspoon against the inside of the bowl. The powder should not have any large pieces.
- Add 4 teaspoonfuls of water to the crushed KI powder in the bowl and mix until the KI powder is dissolved in the water.
- Take the KI water mixture solution made in step 2 and mix it with 4 teaspoonfuls of low fat white or chocolate milk, orange juice, flat soda, raspberry syrup, or infant formula.
- The KI liquid mixture will keep for up to 7 days in the refrigerator. It is recommended that the KI liquid mixture be prepared weekly. Throw away unused portions.

The amount of KI (130 mg tablet) in the drink when mixed as described above is 16.25 mg per teaspoonful. The number of teaspoonfuls of the drink to give your child depends on your child's age as described in the following table:

Child's Age	Give your child this amount in teaspoonfuls
Over 12 to 18 years who weigh less than 150 pounds	4 teaspoonfuls will give you a 65mg dose
Over 3 to 12 years old	4 teaspoonfuls will give you a 65mg dose
Over 1 month to 3 years old	2 teaspoonfuls will give you a 32.5mg dose
Birth to 1 month	1 teaspoonful will give you a 16.25mg dose

Note: This is the amount to give your child for one single dose in teaspoonfuls (not tablespoonfuls). You should give your child one dose each day as recommended by the public officials.

Pregnant or breastfeeding women or babies under 1 month of age: Take as directed above and call a doctor as soon as possible. Repeat dosing should be avoided. It is recommended that thyroid function be checked in babies less than 1 month of age that take KI. Women who are pregnant or breastfeeding should also be checked by a doctor if repeat dosing is necessary. Although these precautions should be taken, the benefits of short-term use of KI to block uptake of radioactive iodine by the thyroid gland far exceed its chances of side effects.

Patients with thyroid disease: If you have a nodular thyroid condition such as multinodular goiter with heart disease, you should not take KI. Patients with other thyroid conditions may take KI as directed above, but call a doctor if you need to take KI for more than a few days.

WARNING

People who are allergic to iodine, have dermatitis herpetiformis or hypocomplementemic vasculitis, or have nodular thyroid disease with heart disease should not take KI. Keep out of the reach of children. In case of an allergic reaction (difficulty breathing, speaking or swallowing; wheezing; shortness of breath or swelling of the mouth or throat), call 911 or get medical care right away. In case of overdose, get medical help or call a Poison Control Center right away.

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 nuclear 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 KI, it will block or reduce the chances that radioactive iodine will enter your thyroid gland.

WHO SHOULD NOT TAKE POTASSIUM IODIDE

People should avoid KI if they are allergic to iodine, have dermatitis herpetiformis or hypocomplementemic vasculitis, or have nodular thyroid disease with heart disease, because these conditions may increase the chances of side effects to iodine.

HOW AND WHEN TO TAKE POTASSIUM IODIDE

KI should be taken as soon as possible after public officials tell you. If you are told to repeat the dose, you should take the second dose 24 hours after the first dose. Do not take it sooner. More KI will not help you because the thyroid can "hold" only certain amounts of iodine. Taking more than 1 dose per day will increase the chances of side effects. The public officials will tell you how many days to take KI. You should take KI until the chances of major exposure to radioactive iodine by breathing or swallowing stops.

SIDE EFFECTS

Short-term use of KI at the recommended dose is safe. You should not take this drug for longer than you are told.

Possible side effects include: swelling of the salivary glands, nausea, vomiting, diarrhea, stomach ache, fever, headache, metallic taste, and allergic reactions. Allergic reactions can include

- skin rashes such as hives
- swelling of various parts of the body such as the face, lips, tongue, throat, hands or feet
- fever with joint pain
- trouble breathing, speaking or swallowing
- wheezing or shortness of breath

Get medical attention right away if you have trouble breathing, speaking or swallowing; wheezing; shortness of breath; or swelling of the mouth, tongue or throat.

(continued)

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.

B. Contents

1. Type of team dispatched and number– Include type of team and team number (ERT-2, ST-1, RMT-1)
2. Reason for entry – A brief description of why the team is dispatched.
3. Radiological Conditions – The anticipated conditions the team may encounter during the re-entry. **IF** the ETA is for tracking personnel only (**NO** radiological conditions exist), **THEN** check box for accountability purposes only.
4. Instructions from Briefing – Include a brief description of the task the team is to perform, if **NOT** indicated in "Reason for Entry." Add telephone number of appropriate OSC Coordinator or OSC Manager.
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 N/A as approval is 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. The Maximum Anticipated Dose Rate is the dose rate used to determine the dose limit for the re-entry (dose rate X work time). The Re-Entry Abort Dose Rate is the Cut and Run number determined for that re-entry.
7. Emergency Worker Exposure Calculation: **IF NO** core melt, **THEN** TEDE = ED Dose; **IF** core melt, **THEN** TEDE = ED Dose times five.
8. Emergency Team Personnel – List team members assigned to re-entry, time leaving OSC to return to evacuated area (INTO), and time the team returns to the OSC from the evacuated area (OUT).
9. Re-entry Approval – Signed by the EC or Radiation Controls 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 Attachment 2).
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 < 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, dose records are 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.

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 CR3 at the time of escalation of emergency.
4. Instructions – generic instructions for anyone involved with the emergency. Specific instructions are given on the Emergency Team Authorization form.

C. Development and Approval

1. The OSC Health Physics Coordinator or designee completes this form and submits for review to the Radiation Controls Coordinator.
2. The Radiation Controls Coordinator reviews the permit and includes any additional information pertinent to the emergency.
3. The Emergency Coordinator or designee approves the ERWP.
4. This action authorizes the permit **AND** automatically sets the exposure limit for personnel assigned to the ERWP to Emergency Dose Limit (margin) of 5 rem Total Effective Dose Equivalent when there are radiological consequences.

EMERGENCY TEAM AUTHORIZATION



SAMPLE

EMERGENCY TEAM AUTHORIZATION					
TYPE OF EMERGENCY TEAM DISPATCHED and NUMBER			DATE		TIME
REASON FOR ENTRY					
OSC Request Form # _____ (if applicable)					
RADIOLOGICAL CONDITIONS					
No Release – ETA used for accountability purposes only <input type="checkbox"/>					
INSTRUCTIONS FROM BRIEFING					
1) Team Leader must carry radio. 2) OSC Telephone Number : 3)					
EQUIPMENT USED					
PROTECTIVE CLOTHING / EQUIPMENT <input type="checkbox"/> None <input type="checkbox"/> Standard PCs <input type="checkbox"/> Double PCs <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"/> ED: 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			MAXIMUM ANTICIPATED DOSE RATE / RE-ENTRY ABORT DOSE RATE		
mREM *					
EMERGENCY TEAM PERSONNEL		BADGE #	INTO <small>Evacuated Area</small>	OUT <small>Back at OSC</small>	*Use for manual input of DOSE (TEDE) as needed INTO OUT
TEAM LEADER					
TEAM MEMBERS					
DOSE LIMIT APPROVAL / OSC HP COORDINATOR <5 rem (TEDE)				DATE	TIME
RE-ENTRY APPROVAL / OSC MANAGER <5 rem (TEDE) EC OR DESIGNEE >5 rem (TEDE)				DATE	TIME

* EMERGENCY DOSE LIMITS 5 rem (TEDE) - Allowable 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

IF NO core melt, THEN TEDE = ED Dose

IF core melt, THEN TEDE = ED Dose times 5

ORIGINAL: Posted in OSC

COPY: Re-Entry Team

TEAM BRIEFING / RE-ENTRY CHECKLIST

NOTE: Steps may be performed in any order ☐

1.0 BEFORE DISPATCH

1. DETERMINE scope of tasks, pre-plan work activities as needed ☐
2. ENSURE Team members have protective clothing, dosimetry, respiratory devices, and/or other protective equipment as specified by the Emergency Team Authorization (ETA) form ☐
3. VERIFY operability of survey instruments and any other equipment needed, and ensure that all radios to be used are programmed for the appropriate talk groups before departure from OSC. ☐
4. ENSURE Self-Reading Dosimetry is re-zeroed as needed. Extremity TLDs are available in the TSC/OSC Emergency Kit. ☐
5. NOTIFY the OSC Manager the team is ready to depart. ☐

NOTE: If additional briefing areas are needed, team members can perform briefings in the Break Room Area or any available room. ☐

2.0 BRIEFING

1. The appropriate OSC Coordinator or designated Team Leader, in conjunction with OSC Health Physics Coordinator or designee, briefs the emergency team on the following before re-entry:
 - a. The nature of the emergency and any other known hazards. ☐
 - b. The purpose of the dispatch and the expected result. ☐
 - c. Route the team will take back into the evacuated area. ☐
 - d. Area dose rates (if known), amount of dose each team member may expect to receive based on hazards en route and at emergency site. ☐
 - e. What actions should be taken if unanticipated conditions are encountered ☐

TEAM BRIEFING/RE-ENTRY CHECKLIST (Continued)**3.0 EMERGENCY TEAM LEADER FUNCTIONS:**

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

CONTINGENCY PLAN FOR SECURING OSC AND ESTABLISHING AN ALTERNATE OSC [R3]

1.0 BEFORE GOING TO ALTERNATE OSC LOCATION

1. IDENTIFY minimum OSC staff necessary based on plant conditions. ☐
2. CONSIDER taking items identified below
 - a. OSC Tool Boxes..... ☐
 - b. Radios ☐
 - c. Emergency Kits or contents as needed..... ☐
 - d. Other items as determined by OSC Coordinators. ☐

2.0 STEPS TO SECURE OSC IF STORM SURGE IS EXPECTED

1. PLACE high value items on tables:
 - a. Computers and peripherals ☐
 - b. Communication equipment..... ☐
 - c. Other items that can be placed on tables ☐
 - d. VERIFY flood protection has been placed around TSC/OSC (EM-220). ☐
 - e. ENSURE appropriate TSC equipment has been de-energized (EM-220, Enclosure 2). ☐
 - f. DISABLE auto start on diesel by selecting the "Auto/Test" switch to the center "Off" position on the generator Kohler Controller. ☐

3.0 RELOCATE TO 124' ELEVATION OF THE CONTROL COMPLEX

1. ACTIVITY – Team Staging Area
2. PERSONNEL – Fire Brigade, Sampling Team, Emergency Repair Team, Radiation Monitoring Team, Security, OSC Manager, OSC Coordinators (as needed).
3. SET-UP – Some emergency supplies are located in labeled cabinets in area. Additional supplies such as chairs, plant radios, tables and equipment from TSC/OSC emergency may need to be re-located to this area.
4. OPERATION – The OSC Manager and OSC Coordinators remain on the 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.

TSC/OSC EMERGENCY RECIRCULATION MODE**CAUTION**

Activation of the emergency mode may require entry into potential Radiation Controlled Areas if a release is in progress. Radiation Monitoring Team member accompanies personnel performing this action, as necessary.

1.0 PLACING TSC/OSC INTO THE EMERGENCY RECIRCULATION MODE

1. OBTAIN duct tape and pliers from OSC area before going to Mechanical Equipment (HVAC) Room. ☐
2. PERFORM the following actions from the Mechanical Equipment Room to activate the emergency recirculation mode for the TSC/OSC: (See schematic on page 3 of Enclosure)
 - a. OPEN the access door for AHD-119 (located by outside exit door). ☐
 - b. At AH-229, ROTATE the switch from the "NORMAL (1)" to the "EMERGENCY (2)" position on the emergency mode control panel. ☐
 - c. LOG start time on form next to AH-229 control switch. ☐
3. VERIFY the following indications:
 - a. AHD-120 damper is in the emergency mode position. AHD-120 is located at waist level at the south side of the room. ☐
 - b. AHF-62 fan is operational as indicated by a red light at the motor/starter panel on the southeast wall. ☐
 - c. AHU-20 is operational as indicated by a red light at the motor/starter panel on the west wall. ☐
 - d. AHF-60 fan is operational as indicated by a red light at the motor/starter panel in the middle of the room. ☐
 - e. AHF-61 fan is operational as indicated by a red light at the motor/starter panel in the middle of the room. ☐
4. IF the fans and dampers are **NOT** operational or **NOT** in the proper position, **THEN** NOTIFY the Maintenance Coordinator. N/A ☐ ☐
5. IF the fans and dampers are operational and in the proper position, **THEN** perform the following. N/A ☐ ☐
 - a. OBTAIN pliers and duct tape. ☐
 - b. EXIT the TSC/OSC and proceed to roof over Mechanical Equipment Room. ☐
 - c. CLOSE and LATCH the goose neck cover for AHD-115, located as shown on Page 3 of 3. ☐

TSC/OSC EMERGENCY RECIRCULATION MODE (Cont'd)**1.0 PLACING TCS/OSC INTO EMERGENCY RECIRCULATION MODE (Continued)**

6. PLACE 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 ☐
7. CLOSE and LATCH the goose neck cover for AHD-116, located as shown on Page 3 of 3. ☐
8. PLACE 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..... ☐
9. RETURN to the TSC/OSC. ☐

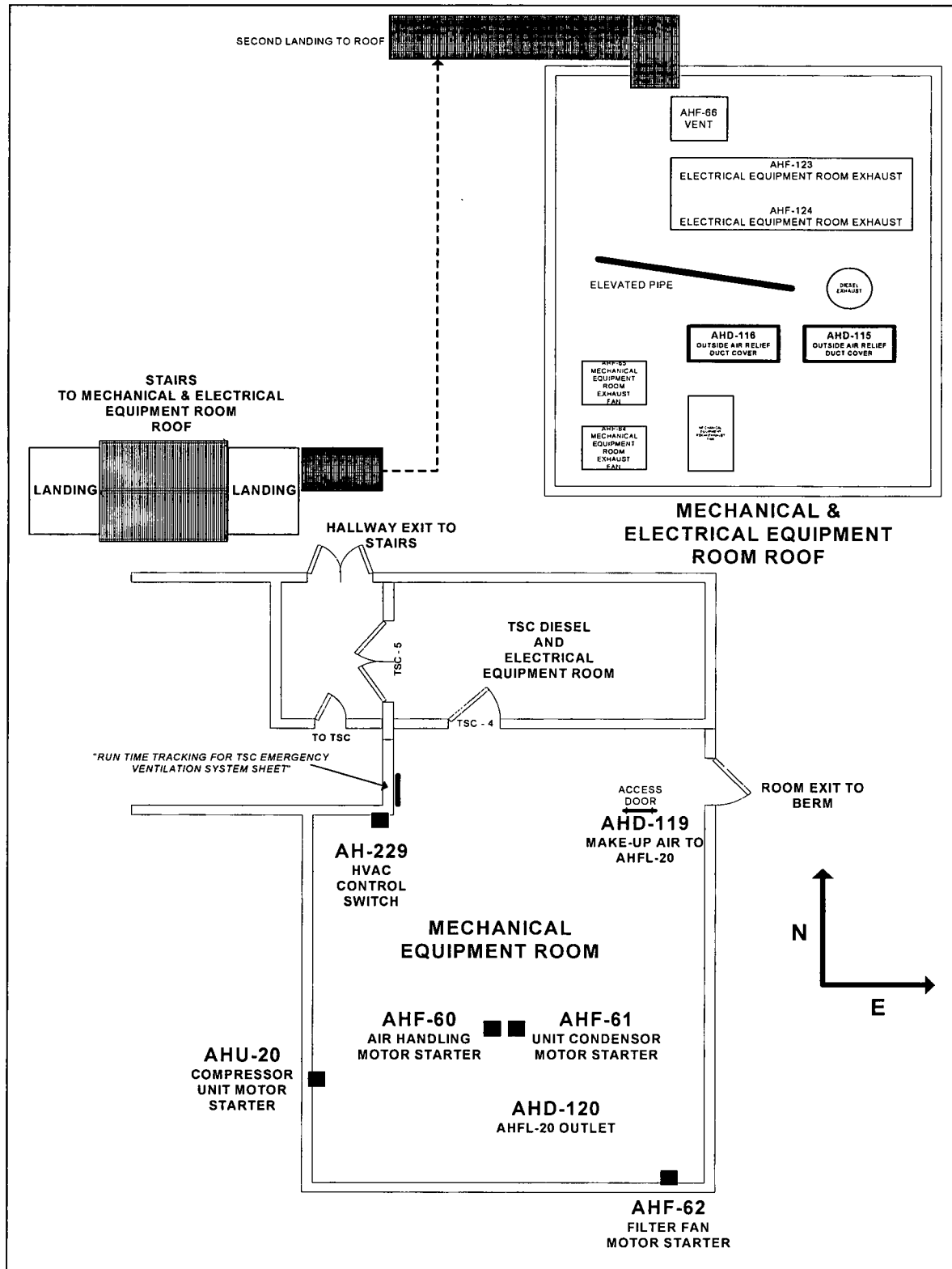
NOTE: Habitability boundary doors are the inside door on the west end and the inside door adjacent to the Emergency Diesel Room door on the east end. <input type="checkbox"/>
--

10. VERIFY the TSC/OSC habitability boundary doors remain are tightly closed unless being used for ingress/egress while emergency recirculation mode is in service..... ☐
11. The TSC/OSC Ventilation System emergency recirculation mode is now operational..... ☐

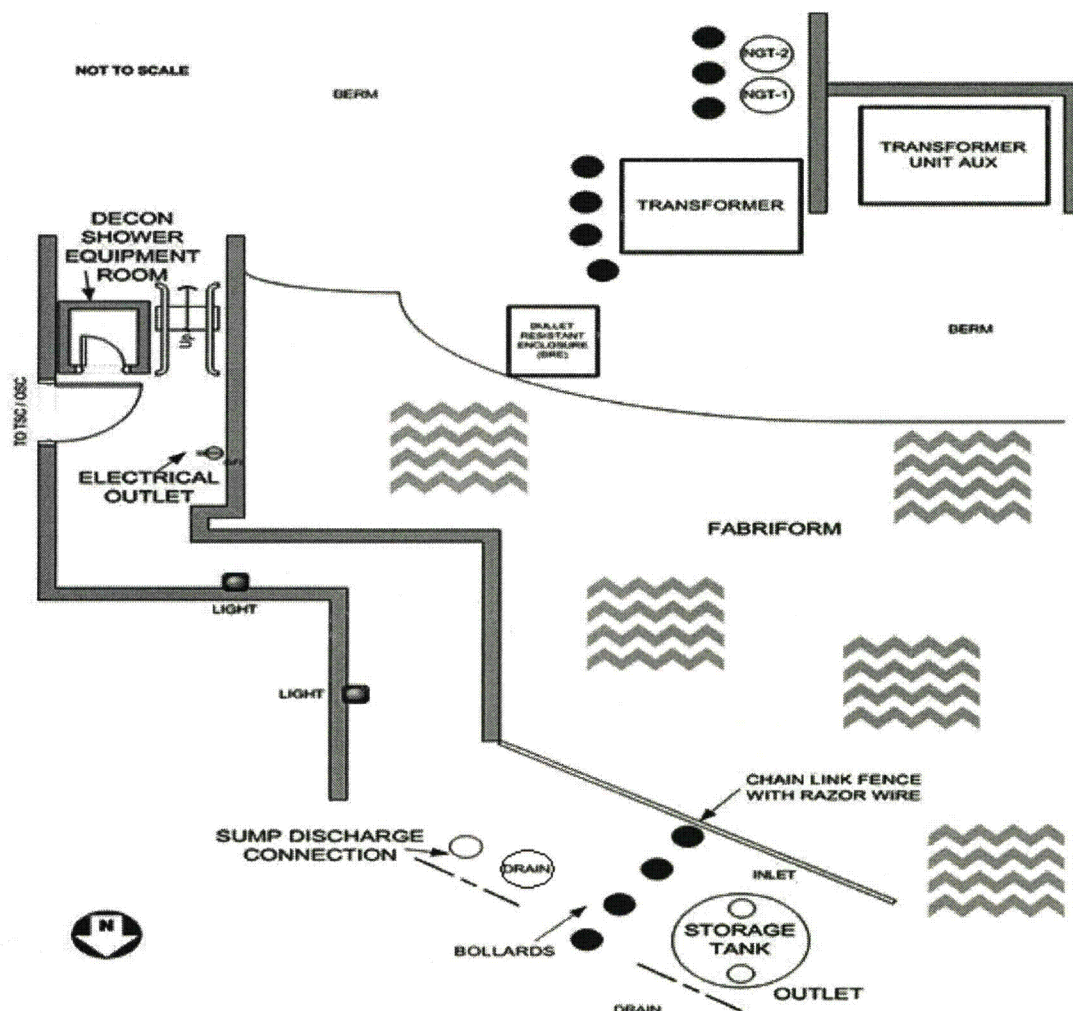
2.0 RESTORATION

1. PERFORM the following actions to restore the emergency recirculation mode for the TSC/OSC:
 - a. REMOVE the duct tape from the access door seals and latches on AHD-116 and AHD-115. ☐
 - b. UNLATCH and OPEN the goose neck covers for AHD-116 and AHD-115. ☐
 - c. RETURN to Mechanical Equipment Room and rotate the switch from the "EMERGENCY (2)" to the "NORMAL (1)" position on the emergency mode control panel (AH-229)..... ☐
 - d. LOG stop time on form next to AH-229 control switch. ☐
 - e. VERIFY AHD-120 is in the "CLOSED" position. ☐
 - f. CLOSE the access door for AHD-119. ☐

TCS/OSC EMERGENCY RECIRCULATION MODE (Continued)



INSTRUCTIONS FOR HOOKING-UP AND PUMPING INTO DECONTAMINATION SHOWER STORAGE TANK



NOTE: Portable lighting (e.g. flashlights) may be required to safely access equipment in storage room under the stairs at west end of TSC.

1. Obtain equipment (hoses, etc.) from room under stairs on west end of TSC including electrical pump from decontamination shower / sink area. ☐
2. Shut on/off valve at pump ☐
3. Connect the 1½-inch stainless steel, red suction line with the camlock fittings to the red suction side of the pump. ☐
4. Connect the other end of the red suction line to the sump discharge connection. ☐
5. Connect the discharge of the pump to the inlet connection of the storage tank. ☐
6. Remove cap on storage tank outlet connection to establish tank vent path. ☐

EMERGENCY RADIATION WORK PERMIT **SAMPLE**

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 remains 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 Briefing.					
SUBMITTED BY OSC HEALTH PHYSICS COORDINATOR			APPROVED BY / EMERGENCY COORDINATOR OR DESIGNEE		

POTASSIUM IODIDE ADMINISTRATION FORM

NAME	BADGE NUMBER	DATE / TIME ISSUED	KI LOT NUMBER	KI EXPIRATION DATE	ARE YOU ALLERGIC TO IODINE? EXAMPLE - SHELLFISH

Radiation Controls Coordinator: _____ Date: _____

**Summary of Changes
PRR 570004**

- NOTES:** 1. Procedure Sponsor: Ensure that any changes to EM-104 that affect information contained in the Emergency Radiation Work Permit or Emergency Team Authorization form, or change to the KI brand name affecting the KI Consumer Package Insert, and information on the OSC HP Coordinator generic briefing card or checklist, the OSC Engineer or Administrative Support Checklists are made to those items as well.
2. Procedure Sponsor: If any changes are made to EM-104, step 9.3.2.6 (EM-210A, Section 4.2), EM-104, step 9.3.2.10 (EM-210A, Enclosure 1), EM-104, step 3.4.2.12 (CH-632, Attachment 2), EM-104, step 9.5.1.4. (EM-103, Enclosure 1), EM-102, Enclosure 1, and EM-401, Enclosure 10, ensure appropriate PRRs are initiated as needed.

<u>Step/Section</u>	<u>Changes and Reason</u>
Throughout	Per EC 84174, Install New Plant Radio System, removed references to specific radio transceiver channel numbers. New radios are programmed differently for each organization or "Talk Group" that uses them: Maintenance radios will not have the same channels or talk groups programmed into them as Operations, or RP, or EP, or Security radios. The talk groups selected is displayed on the radio.
4.0.8.c Page 7 of 42	Channel number replaced with "via plant radio (Radio Channel 7 or appropriate talk group). "
7.2.4 (Page 11) 9.1.1.1 Page12) 9.2.1.1 (Page 15)	Added "set to appropriate talk groups"
Attachment 2 Step 1.0.3 Page 33 of 42	Reworded to "ensure that all radios to be used are programmed for the appropriate talk groups before departure from the OSC"

1242



R
Reference
Use

CRYSTAL RIVER UNIT 3
PLANT OPERATING MANUAL

EMERGENCY PLAN IMPLEMENTING PROCEDURE (EPIP)

EM-205

**PERSONNEL EMERGENCY RESPONSIBILITIES
REGARDING DISCOVERY, ASSEMBLY, EVACUATION,
AND ACCOUNTABILITY WITHIN THE PROTECTED AREA**

REVISION 32

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1.0 PURPOSE

Provides instructions for CR3 personnel within the Protected Area on actions to take for:

1. discovering an emergency
2. local assembly
3. accountability and evacuation of the CR3 Protected Area
4. actions during a security emergency.

This procedure is an Emergency Plan Implementing Procedure. Any revisions must be carefully considered for Emergency Plan impact.

2.0 REFERENCES

2.1 Developmental References

1. 10 CFR 50.47, Emergency Plans
2. 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities
3. EM-211, Duties of the CR3 Nuclear Security Organization
4. NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
5. **[R1]** NOCS 24880, Note Indicating Where Local Assembly Area Signs are Posted
6. **[R2]** NOCS 4751, Actions Taken by Control Room in Response to Fire
7. **[R3]** NOCS 4750, Actions Taken by Individual Discovering Fire
8. **[R4)** NOCS 7455, Main Assembly Area provides Protection Against Inclement Weather
9. CR3 Radiological Emergency Response Plan

3.0 DEFINITIONS

1. **Accountability** - The process of identifying personnel remaining inside the Protected Area and ascertaining the names of missing individuals following an evacuation or as deemed necessary by the Emergency Coordinator (EC).
2. **Alert** – This classification refers to event(s) that are in process, or have occurred, involving an actual or potentially substantial degradation of the level of safety of the Plant OR a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels. The Technical Support Center (TSC) is staffed and assembly and accountability are performed at local assembly areas.
3. **General Emergency** – This classification refers to event(s) that are in process, or have occurred, involving actual or imminent substantial core degradation or nuclear fuel melting with the potential for loss of containment integrity OR HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guidelines exposure levels for more than the immediate site area. This classification initiates predetermined protective actions for the public, provides continuous assessment of information from on-site and off-site measurements, initiates additional measures indicated by the event, and provides current information and consultation with off-site authorities and the public. The Emergency Coordinator will probably decide to evacuate the Energy Complex
4. **Local Assembly Area** – A pre-designated area to which personnel report for organization, roll call, and supervision following an Alert emergency classification, or as deemed necessary by the Emergency Coordinator.
5. **Local Assembly Area Supervisor** -The supervisor or designee assuming leadership responsibility in a Local Assembly Area. This individual should not be someone who may be responding to an Emergency Response Facility.
6. **Main Assembly Area (MAA)** - The Site Administration Building Auditorium: The location where personnel report for organization and supervision following an evacuation of the CR3 Protected Area. [R4]

7. **Main Assembly Area Supervisor** - The individual (typically a Security representative during non-Security related events) assuming leadership responsibility in the Main Assembly Area.
8. **Missing Individual** – An unaccounted for person, within the Protected Area following an evacuation or when the Emergency Coordinator requests accountability. It is further determined that this individual is not in or dispatched from the Control Room, TSC/OSC, or Nuclear Security Operations Center (NSOC).
9. **Non-Essential Personnel** - Personnel not required for the safe operation of the Plant, not assigned emergency functions in the Control Room or TSC/OSC and not a member of the on-duty Security Force.
10. **Non-Medical Emergency** – An incident or condition requiring immediate attention, which could result in damage to Plant components and may be accompanied by high radiation or radioactive contamination. Examples include fire, explosion, steam line break, hazardous material spill, etc. (Refer to EM-213 for medical emergency actions)
11. **Protected Area** - Area encompassed by physical barriers and detection devices. The area evacuated in the event of a Site Area Emergency.
12. **Radiation Control Area (RCA)** – Generally the Reactor Building, Auxiliary Building, 95' Intermediate Building, posted areas of the berm and support buildings, but also including any area within a restricted area that is posted for radiological protection purposes.
13. **Security Condition** - Any Security Event as listed in the approved security contingency plan that constitutes a threat/compromise to site security, threat/risk to site personnel, or a potential degradation to the level of safety of the plant. A SECURITY CONDITION does not involve a HOSTILE ACTION.
14. **Site Area Emergency** - This classification refers to event(s) that are in process, or have occurred, involving actual or likely major failures of Plant functions needed for the protection of the public OR HOSTILE ACTION that results in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Any releases are NOT expected to result in exposure levels, which exceed EPA Protective Action Guideline exposure levels at the SITE BOUNDARY. The TSC and the Emergency Operations Facility (EOF) are staffed and radiation monitoring teams may be dispatched. Protected Area evacuation and accountability is performed at CR3. Assembly and accountability is performed at Units 1/2 & 4/5.

15. **Site Evacuation** - Evacuation of non-essential personnel from the Protected Area.
16. **Unusual Event** – This classification refers to any event(s), in process or having occurred, indicating a potential degradation of the level of safety of the Plant OR indicate a security threat to facility protection. NO releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety occurs. This classification brings the operating staff to a state of readiness if escalation to a more severe action level classification occurs.

4.0 RESPONSIBILITIES

1. The Emergency Coordinator initiates personnel assembly, accountability, or evacuation because of an emergency at CR3. During Security related threats and/or events the Emergency Coordinator designates an individual to act as the Main Assembly Area Supervisor as needed.
2. Each Supervisor / Manager or designee (Local Assembly Area Supervisor) inside the Protected Area is responsible for ensuring accountability of Section / Unit personnel during an Alert and as requested by the Emergency Coordinator.
3. The Local Assembly Area Supervisor establishes control and organization of personnel assembled and ensures evacuation of such personnel during a Site Area Emergency, as directed by the Emergency Coordinator.
4. The Main Assembly Area Supervisor establishes control and organization of the personnel assembled in the Main Assembly Area. A Main Assembly Area Supervisor supply kit, which contains a set of written instructions to provide guidance to the Main Assembly Area Supervisor, is located within the Main Assembly Area.
5. Security directs normal and emergency ingress and egress to the Protected Area, maintains records documenting Site Evacuation during an emergency at CR3, and supports the Emergency Coordinator in performing accountability. Personnel are expected to follow instructions from Security personnel at all times.
6. Security implements evacuation of the Energy Complex when directed by the Emergency Coordinator.
7. Individuals entering the CR3 Protected Area (excluding visitors) are expected to maintain familiarity with the information contained in this procedure, following radiological practices, and minimizing the probability of injury or exposure to radiation.
8. Individuals whose normal workstation is outside the Protected Area must exit the Protected Area when an Alert is declared.

5.0 PREREQUISITES

None

6.0 PRECAUTIONS, LIMITATIONS AND NOTES

1. When instructed, personnel are to report immediately to their assigned locations (Local Assembly Area, Main Assembly Area, Control Room, and TSC/OSC) to ensure timely accountability.
2. Personnel performing duties essential for the safe operation of the Plant, on-duty Security Force personnel, and personnel assigned emergency functions in the Control Room or TSC/OSC, are not required to assemble or evacuate unless otherwise instructed by the Emergency Coordinator.
3. Personnel are to secure potentially hazardous equipment or operations before following instructions for evacuating an area.
4. Following instructions to evacuate any area, all personnel are expected to do so in a safe and expeditious manner.
5. Protected Area accountability must be completed within 30 minutes of sounding the Site Evacuation Alarm following the declaration by the Emergency Coordinator of a Site Area Emergency or General Emergency.
6. **IF** the Emergency Coordinator requests accountability before a Site Evacuation, **THEN** accountability must be completed within 30 minutes.
7. After declaration of a Security Condition, all personnel who are moving about are subject to challenge by Security and must follow all directions issued, i.e., get-down, take-cover, etc.
8. An emergency telephone system is used to report emergencies. This system enables an individual to report an emergency by dialing 5-5-5-5 on the Public Address System (PAX) or conventional intra-Plant phones on site. This activates a dedicated emergency telephone in the Control Room used only for emergencies.

7.0 SPECIAL TOOLS AND EQUIPMENT

None

8.0 ACCEPTANCE CRITERIA

None

9.0 INSTRUCTIONS

9.1 Individuals Discovering an Emergency

1. NOTIFY the Control Room by dialing 5-5-5-5 on PAX or any conventional intra-Plant telephone or by radio and PROVIDE information requested. [R2/R3]
2. EVALUATE hazards of the emergency area.
3. TAKE immediate actions qualified to perform, such as using fire extinguisher.
4. WITHDRAW to a safe area and NOTIFY / WARN other personnel in the area.
5. FOLLOW instructions of person in charge at the emergency scene.

9.2 Localized Evacuation of Personnel

NOTE: Notification to evacuate a specific work area is by Reactor Building or Auxiliary Building Evacuation alarm and/or public address announcement when emergency conditions create localized radiological hazards.

1. IF notified to evacuate the Radiation Control Area, THEN PERFORM normal monitoring practices, AND EXIT evacuated area.
2. REPORT to respective shop / work area to ensure accountability of everyone working in the evacuated area.
3. REPORT names of missing personnel during an RCA evacuation to the Supervisor Radiation Control and Security.
4. ELIMINATE non-essential personnel from the evacuated area until Health Physics determines re-entry is permissible.
5. MAINTAIN control of visitor(s) and escort them off-site.

9.3 Alert classification: Local Assembly of Non-Essential Personnel

NOTES: 1. Notification for non-essential personnel to go to their "Local Assembly Area" is made by PA announcement. Assembly assists communication, accountability, and supervision following an Alert classification.

2. Signs are posted at the Nuclear Security Operation Center, Rusty Building, and Turbine Building listing the Local Assembly Areas. A sign is posted at the exit to the Protected Area designating the Main Assembly Area location.

[R5]

1. STOP routine work and SECURE potentially hazardous equipment.
2. Individuals assigned to the Rusty, Plant Administration or Nuclear Administration Buildings, are to report to their office area and ensure the Local Assembly Area Supervisor or designee is aware of their location during an Alert or as requested by the Emergency Coordinator.
3. REPORT to local assembly during an Alert declaration unless one of the following exceptions applies:
 - a. CONTINUE performing EOP actions or assigned actions to mitigate the emergency until directed otherwise.
 - b. REPORT to an Emergency Response Facility if pre-identified.
4. ESCORT visitors to the Nuclear Security Operations Center and INSTRUCT them, as appropriate, to either report to the Main Assembly Area or to leave the Crystal River Energy Complex.
5. **WHEN** visitors have exited the Protected Area, **THEN** REPORT to Local Assembly Area.
6. **IF** normal workstation is outside the Protected Area, **THEN** EXIT the Protected Area when an Alert is declared.
7. Contract personnel REPORT to the Site Administration Building Auditorium, unless directed to report to a Local Assembly Area by their work supervisor.
8. REMAIN in Local Assembly Areas until instructed to return to work or evacuate to the designated Main Assembly Area.

NOTE: Local Assembly Area Supervisors are expected to be aware of Section/Unit personnel who are members of the Emergency Response Organization and not identify them as missing personnel. The Emergency Response Personnel Directory, available on the EP website, should be referenced for this purpose.

9.4 Local Assembly Area Supervisor PERFORM the following:

1. IDENTIFY individuals missing during the local assembly.
2. NOTIFY Security at the TSC at extension 3-2-5-8 if the individual's location is not determined in approximately 20 minutes.
3. PERFORM as the point of contact for further instructions to assembled personnel.
4. MAINTAIN accountability of Local Assembly Area personnel until further notice.
5. ENSURE personnel evacuate at a Site Area Emergency (SAE), and REPORT to the Main Assembly Area (MAA) as directed. PERFORM SAE accountability by badge when exiting the Protected Area – there is no need to report accountability to the MAA Supervisor unless specifically requested.
6. DO NOT notify Security unless there is a missing individual.

9.5 **Site Area Emergency or General Emergency Classification: Evacuation of Non-Essential Personnel from the CR3 Protected Area**

- NOTES:**
1. Security conducts Protected Area accountability to establish the names of missing individuals in the Protected Area within 30 minutes of sounding the Site Evacuation alarm following the declaration of a Site Area Emergency or General Emergency by the EC.
 2. If accountability is in progress during a Site Evacuation, even minor delays in evacuating could prevent completion within the required 30 minutes.
 3. Notification to evacuate the CR3 Protected Area is by Site Evacuation alarm and/or PA announcement.

1. **IF** notified to evacuate the CR3 Protected Area, **THEN** all non-essential personnel must immediately evacuate the Protected Area.
2. **IF** evacuation of the Protected Area is initiated before personnel are instructed to gather in Local Assembly Areas, **THEN** personnel do NOT report to the Local Assembly Areas before exiting the Protected Area.
3. The dedicated Shift Fire Brigade team members **REPORT** to the Control Room Break Area with fire-fighting turnout gear, Self-Contained Breathing Apparatus (SCBA), and portable radios in the event of a site evacuation.
4. Non-essential personnel **EXIT** the Protected Area through the Nuclear Security Operation Center, unless otherwise directed.
5. **PERFORM** the following unless otherwise directed:
 - a. Site Area Emergency - **PROCEED** immediately and safely to the Main Assembly Area (Site Administration Building Auditorium), unless otherwise directed. **REMAIN** in the Main Assembly Area until instructed to return to work or to evacuate the Energy Complex.
 - b. General Emergency – **EVACUATE** the Energy Complex.

NOTE: The Main Assembly Area Supervisor usually has a Plant radio set to the appropriate talk group so that information regarding missing personnel can be readily communicated. If a radio is not readily available to this individual, he/she should attempt to obtain one from Security, Maintenance, Operations, etc. Plant radios may also be located in the Site Administration Building

6. Security typically provides an individual to assume the position of Main Assembly Area Supervisor. This may not be possible if the event involves a Security threat or condition. If so, the Emergency Coordinator will designate an individual to perform this function. The Main Assembly Area Supervisor establishes control and organization of the personnel assembled in the Main Assembly Area. A Main Assembly Area Supervisor supply kit, which contains a set of written instructions to provide guidance to the Main Assembly Area Supervisor, is located within the Main Assembly Area.

The Main Assembly Area Supervisor must:

- TAKE leadership responsibility for personnel assembled in the Main Assembly Area.
- DIRECT assembled personnel to various locations within the Site Administration Building.
- ENSURE the non-dedicated Shift Fire Brigade team members assemble in SAB Second Floor East Conference Room unless otherwise directed by the Fire Team Leader, NSM/ TSC Emergency Coordinator or designee.
- USE the Site Administration Building local Public Address (accessed by dialing 1-1) to keep evacuated personnel informed.
- IMPLEMENT instructions from the Emergency Coordinator.
- NOTIFY personnel assembled concerning evacuation location, Energy Complex evacuation, return to work instructions, and Plant conditions, as directed by the TSC.
- ENSURE evacuated personnel remain inside the Site Administration Building, unless otherwise directed.
- MONITOR radio communications.
- As needed, DESIGNATE one (1) or more individuals to assist with these duties.

9.6 Evacuation of Non-Essential Personnel from the Energy Complex

1. **WHEN** instructed by the Emergency Coordinator and Security, **THEN** EVACUATE the Energy Complex.
2. COORDINATE evacuation with Security and include:
 - a. Instructions describing the methods and routes for evacuation.
 - b. Evacuation by private vehicle using staged release and two lanes on the Plant Access Road.
 - c. Coordination if an alternate plan is implemented.

9.7 Instructions for Plant Personnel during a Security Condition

CAUTIONS

1. The following instructions enhance personnel safety during a Security Condition (Protected Area intruder / terrorist attack) where physical or deadly force may be necessary to protect Plant personnel or vital equipment. Security may initiate a PA announcement directed towards the intruders.
2. Individuals, who continue to move about during a Security Condition involving an intruder / terrorist attack, may be mistaken as an intruder by Security personnel.

1. **IF** Security announces a Security Condition, **THEN** personnel TAKE the following actions:
 - a. Personnel in the Control Room, REMAIN in the Control Room and WAIT for instructions from the Nuclear Shift Manager.
 - b. Personnel not in the Control Room, PERFORM the following actions:
 - TAKE stable, suitable cover immediately. If time permits, SECURE potentially hazardous equipment and suspended loads as safe as possible before taking cover.
 - MOVE low to the ground.
 - REMAIN in this position until an "ALL CLEAR" announcement is made that it is safe to relocate.
2. **IF** the Security Condition continues, **AND** an Alert, Site Area Emergency, or General Emergency is declared, **THEN** emergency response personnel do NOT staff the TSC/OSC or EOF/ENC, unless otherwise instructed.
3. Non-essential personnel do NOT proceed to their Local Assembly Areas, unless otherwise instructed.
4. **WHEN** an announcement is made that the Security Condition is under control, **THEN** proceed to Local Assembly Areas for further instructions.

10.0 RECORDS

None

LOCAL ASSEMBLY AREA ASSIGNMENTS

SAMPLE

[R1]

PERSONNEL	ASSEMBLY AREA
Contractors & Non-CR3 Personnel	Site Administration Building Auditorium
Maintenance <i>Electrical</i>	Electric Shop
Maintenance <i>Facility Services</i>	Facility Services Shop
Maintenance <i>FIN Team</i>	FIN Shop
Maintenance <i>I&C</i>	I&C Shop
Maintenance <i>Mechanical</i>	Mechanic Shop
Maintenance <i>Support</i>	Ready Warehouse Break Area
Nuclear Administration Building (Personnel who normally work within this building)	Nuclear Administration Building
Operations (Off-Shift / On-Shift)	Control Room
Plant Administration Building (Personnel who normally work within this building)	Plant Administration Building
Rusty Building (Personnel who normally work within this building)	Rusty Building
Security (Off-Duty)	Nuclear Security Operations Center
Security (On-Duty)	Assigned Posts & Patrols
Selected Emergency Team Members	OSC
Shift Fire Brigade Members	Control Room Break Room
Technical Support Center Staff	TSC

Summary of Changes

PRR 570006

- NOTES:**
1. Writers, Reviewers, and Procedure Sponsors: Ensure that any changes to this procedure that affect information contained in ERF posters, Enclosures, briefing cards, guidelines, etc. are made to those items as well.
 2. Writers, Reviewers, and Procedure Sponsors: Changes to certain parts of this procedure may impact other EIPs. Ensure appropriate PRRs are initiated as needed.
 3. None of the changes listed below constitute a reduction in effectiveness of this procedure or the Radiological Emergency Response Plan.

SECTION/STEP	CHANGES
NOTE prior to Step 9.5.6	Changed language designating the radio channel name to "appropriate talk group" because new plant radio system does not use channel numbers; instead different frequencies are assigned to various talk groups (maintenance, operations, chemistry, security, etc.) with that designator shown on the radio's screen. EC 84174, Install New Plant Radio System.

#1242



R
Reference
Use

CRYSTAL RIVER UNIT 3

PLANT OPERATING MANUAL

EM-913

INTEGRATED RESPONSE FOR A LARGE AREA FIRE

REVISION 5

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1.0 PURPOSE [NOCS 100532, 100534]

This procedure provides instructions and guidelines used by the Site Incident Commander (Emergency Response Coordinator), Fire Team Leader, Technical Support Center and Security after a security event which causes a large-area fire inside the Protected Area. Specific guidelines include command and control of the fire scene, equipment availability, and support required for the fire response team. This procedure is an Emergency Plan Implementing Procedure. Any revisions must be carefully considered for Emergency Plan impact.

2.0 REFERENCES

2.1 Developmental References

1. 10 CFR 50.47, Emergency Plans
2. NRC Order EA-02-026, Section B.5.b
3. EC 73473, ISFSI Fire Protection

3.0 DEFINITIONS

1. **Fire Team Leader (FTL):** An individual who is qualified per AI-2205, Administration of CR-3 Fire Brigade Organization and Duties of The Fire Brigade.
2. **Emergency Response Coordinator (ERC):** A position defined in the FPC Fire Emergency Plan - Crystal River Energy Complex. This individual is qualified in fire command techniques and strategies. The coordinators have the skills necessary for fire fighting strategy and tactics, fire suppression and prevention techniques, leadership principles, pre-fire planning, and safety practices. The ERC is an Incident Commander during a fire emergency.
3. **Imminent hazard:** an act or condition which is judged to present a danger to persons or property that is so urgent that it requires immediate corrective action.
4. **Incident Commander (IC):** The individual responsible for directing the activities of fire brigade mustered from CR3 and offsite organizations to fight a large area fire per this procedure. The Incident Commander is the Emergency Response Coordinator. The Fire Team Leader will be the Incident Commander's liaison with the CR3 Control Room or TSC and will provide knowledge of plant operations. The Incident Commander assumes command of the on-scene response to the incident (Fire, Medical, etc.) and will regulate and maintain all fire fighting activities.
5. **Primary Staging Area:** The Primary Staging area is located on Power Line Road, west of the railroad track crossing in the parking lot of the Site Administration Building. Staging area will consist of offsite response organizations, and those pieces of equipment and personnel which could be expected to be used on short notice. Examples would be (1) Fire Engine Pumper, (1) EMS unit, (1) Water Truck, and personnel to man such equipment. As equipment and personnel are used replenishment would be from the Secondary Staging area.

Section 3.0 Definitions (Cont'd)

6. **Secondary Staging Area:** The Secondary Staging area is located in the open field area approximately 100 yards north of the Site Administration Building. Secondary staging will consist of equipment and personnel on a ready reserve to replenish the Primary Staging area as resources are used or to quickly augment if additional resources are required due to the size of the incident.
7. **Offsite Staging Areas:** The Primary Offsite Staging area will be set up at the Seven Rivers Regional Medical Center Parking Lot. This location will also be used for additional resources and can be used with HP approval if a release is in progress. The Secondary Offsite Staging area will be at the EOF if a release is in progress and the Primary Offsite Staging area cannot be used.
8. **Triage Area** – A Triage Area should be designated by the Incident Commander that is large enough to adequately handle large numbers of casualties and in an area that is expected to survive a potential B.5.b event.
9. **Incident Command Post:** The incident command post for the scene will be determined by the Incident Commander. The Incident Commander, Fire Team Leader, and responsible personnel from the responding offsite organizations will be located at the Incident Command Post.

4.0 RESPONSIBILITIES

1. **Security:** Support reentry of the Fire Brigade into the Protected Area and provide support for staging and entry of offsite organizations to aid the Incident Commander per Attachment 1, Security Checklist.
2. **Incident Commander:** Responsible for directing the activities of fire brigade mustered from CR3 and offsite organizations to fight the fire. This function will be performed by the site Emergency Response Coordinator. Perform functions as described in Attachment 2, Incident Commander Checklist.
3. **Fire Team Leader:** Act as liaison between Incident Commander and the CR3 Control Room or EC/EC designee and provide knowledge of plant operations. Perform functions as described in Attachment 3, Fire Team Leader Checklist.
4. **EC/EC Designee:** Monitor radio communications and provide support to the Incident Commander. Perform functions described in Attachment 4, EC/EC Designee Checklist.

5.0 PREREQUISITES

None

6.0 PRECAUTIONS, LIMITATIONS, AND NOTES

1. For all security threat conditions, the SM determines the safe actions for plant personnel, which may include delaying the re-entry of the Fire Brigade, staffing of the TSC, Remote TSC, and EOF until it is safe to do so.
2. A security threat or event presents unique challenges to protecting the health and safety of the public and plant staff. Normal emergency response procedure steps may be hindered due to events that are occurring.
3. Security communications of threat information should be held as Safeguards until deemed otherwise by security.
4. If radio repeaters are lost radios will work in outside areas but may fail to work inside buildings.
5. Twenty (20) additional (dedicated) radios and spare batteries are located and maintained within the EOF (Room 147) and are available for rapid issuance.
 - a. These radios may be distributed as determined by the Incident Commander.
 - b. The Incident Commander must either CONTACT or DISPATCH an individual to the EOF to have the radios distributed as needed.
 - 1) The EOF requires key card access and Room 147 is normally locked.
 - 2) Any individual dispatched should at a minimum have key card access to the EOF and additional communications to personnel with offices at the EOF may be required to obtain keys to EOF Room 147
 - c. These radios, which are part of the Citrus County Sheriff's Office 800 MHz radio system, are preset to call group "1A-CR3 Maint" (Radio Zone selector "A" channel 8).

7.0 SPECIAL TOOLS AND EQUIPMENT

None

8.0 ACCEPTANCE CRITERIA

None

9.0 INSTRUCTIONS

9.1 Entry preparations

1. When notified per EM-911 of a threat with the capability of resulting in a "Large Area Fire", or a large area fire exists, the Emergency Response Coordinator will assume the position of Incident Commander.
2. The Fire Team Leader and the Fire Brigade will stage in a designated area per EM-911, Security Threats **AND** contact the Incident Commander.
3. Incident Commander shall conduct a briefing with the Fire Team Leader.
 - a. VERIFY Fire Brigade is accounted for.
 - b. SET radio communications to Channel 7 or appropriate talk group.
 - c. REVIEW command and control:
 - 1) ERC will be Incident Commander
 - 2) Fire Team Leader will be the liaison between the Incident Commander and the Control Room/TSC
 - d. DETERMINE area in SAB where Incident Commander, Fire Team Leader, and the Fire Brigade will stage prior to entry into the Protected Area. If the Fire Team Leader and Fire Brigade are staged within the protected area, the Incident Commander will determine if an alternate staging area is appropriate.
4. At the discretion of the Incident Commander, Fire Team Leader and Fire Brigade members obtain bunker gear from spare bunker staging area in the Site Administration Building or Fire Brigade Locker Room in the Ready Warehouse, if available.
5. Incident Commander shall ensure foam trailer is connected to a truck for transport to the CR3 Protected Area.
6. Incident Commander shall perform the following:
 - a. CONTACT Security to verify Protected Area Security has been established.
 - b. CONTACT Control Room/TSC to determine if site habitability is safe for fire response.
 - 1) Safe for Fire Brigade to respond? Yes ☐ No ☐
 - 2) On site staging will be implemented? Yes ☐ No ☐
 - 3) Off site Primary staging will be used? Yes ☐ No ☐
 - 4) Off site Secondary Staging will be used? Yes ☐ No ☐
 - c. NOTIFY Security to perform Attachment 1, Security Checklist
7. Incident Commander IMPLEMENT EMG-CRFF-00005, Crystal River Fossil Plant's Integrated Emergency Response Plan.

9.2 Guidelines for Re-entry and Attack of Large Area Fire

1. Incident Commander ESTABLISH radio communications with Citrus County Dispatch.
 - a. VERIFY offsite assistance has been notified.
 - b. VERIFY offsite assistance is enroute to correct staging areas based on site habitability.
2. Incident Commander PERFORM Attachment 2, Incident Commander Checklist.
3. Fire Team Leader PERFORM Attachment 3, Fire Team Leader Checklist.
4. EC/EC Designee in TSC PERFORM Attachment 4, EC/EC Designee Checklist.

10.0 RECORDS

1. None

COMMUNICATION CAPABILITIES

NOTE: Potential communication methods with Main Control Room applicable to this Enclosure include:

- Hand held radio
- PAX phone line
- 4 digit phone line
- Cell phone

1. VERIFY the Main Control Room has communications to Off-Site agencies such as the Citrus County Communications (911) dispatcher.

2. IF phone lines are unavailable, THEN the Main Control Room may communicate with the County by using Security to relay transmissions via Security radios. N/A

3. VERIFY the ERC/IC has a cell phone and a radio capable of communicating with the County.

NOTES: Twenty (20) additional (dedicated) radios and spare batteries are located and maintained within the EOF (Room 147) and are available for rapid issuance.

The EOF requires key card access and Room 147 is normally locked.

Any individual dispatched should at a minimum have key card access to the EOF and additional communications to personnel with offices at the EOF may be required to obtain keys to EOF Room 147.

Radios may be distributed as determined by the Incident Commander.

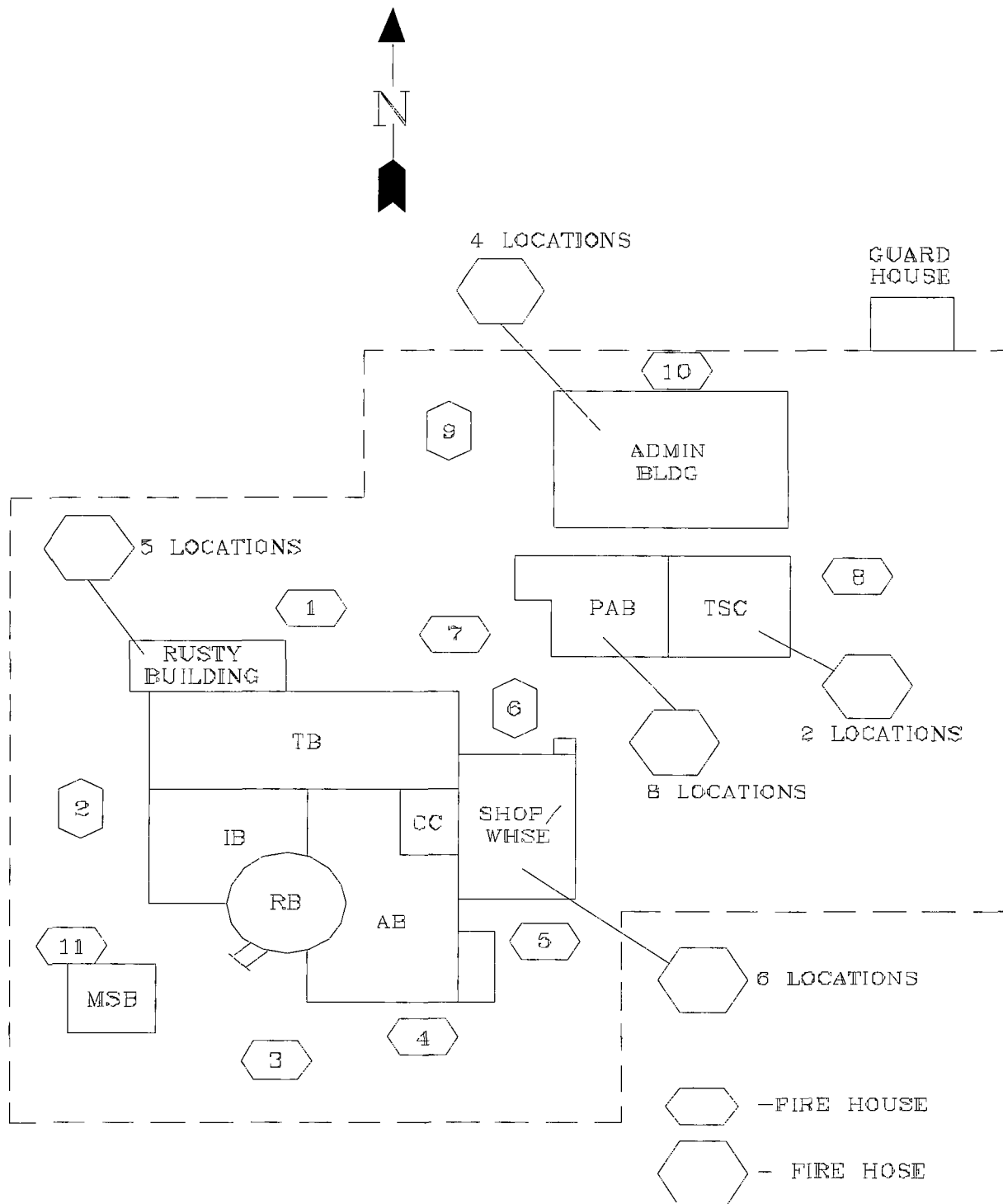
4. IF additional radios are needed, THEN PERFORM the following: N/A

a. Incident Commander DISPATCH an individual to the EOF to obtain extra radios.

NOTE: The radios are part of the Citrus Country Sheriff's Office 800 MHz radio system and are preset to call group "1A-CR3 Maint" (Radio Zone selector "A" channel selector 8)

b. Incident Commander DETERMINE how radios will be distributed AND ARRANGE for distribution.

Fire Hose and Fire House Locations



SECURITY CHECKLIST

NOTE: This Attachment contains guidelines to be followed by Security when a Large Area Fire occurs inside the CR3 Protected Area..... ☐

1. VERIFY offsite emergency agencies are enroute. ☐
2. ENSURE Security personnel are staged at Access Control Point (ACP) to escort offsite response to the identified staging areas..... ☐

NOTES: The Primary Staging area is located on Power Line Road, west of the railroad track crossing in the parking lot of the Site Administration Building. ☐

Staging area will consist of Offsite response organizations, and those pieces of equipment and personnel which could be expected to be used on short notice. ☐

Examples of equipment and personnel in the Primary Staging Area include:

- (1) Fire Engine Pumper
- (1) EMS Unit
- (1) Water Truck
- Personnel to operate the equipment

As equipment and personnel are used replenishment would be from the Secondary Staging area, which is located in the open field area approximately 100 yards north of the Site Administration Building ☐

Secondary staging consists of equipment and personnel on a ready reserve to replenish the Primary Staging area as resources are used or to quickly augment if additional resources are required due to the size of the incident ☐

3. ENSURE a Security Officer is stationed at the Primary Staging area to instruct incoming fire fighting personnel as to the status of the fire emergency and direct them to follow the Security vehicle to the fire emergency for further instructions from the Incident Commander, or his designee ☐
4. ENSURE Security personnel are available at the Sally-Port to allow re-entry of ERC truck, Fire Brigade and offsite emergency personnel ☐

NOTE: The location of the Command Post station will depend upon the fire emergency .. ☐

5. ENSURE Security Officer(s) at the emergency scene direct traffic around and cordon of the area. ☐
6. ENSURE TLDs are issued to responding emergency personnel AND COLLECT individual identification information if possible..... ☐

INCIDENT COMMANDER CHECKLIST

1. IF additional SCBAs are needed for Fire Brigade, **THEN** OBTAIN additional SCBAs from HAZMAT Trailer N/A ☐ ☐
 2. For a mass casualty event, ENSURE adequate coordination exists between onsite and offsite medical assistance using the Medical Mutual Aid/Memorandum of Understanding response framework. ☐
 3. SET UP Incident Command Post ☐
 4. PERFORM scene size up ☐
 - a. IF Fire Team Leader is able to communicate with the Main Control Room, **THEN** have Fire Team Leader identify primary equipment that needs to be protected based on fire location N/A ☐ ☐
- NOTE:** AAG-10 contains guidance for isolating CR3 Fire Service systems. ☐

Plant drawings are maintained and available in the Technical Support Center..... ☐
5. EVALUATE Fire Service System:
 - ISOLATE damaged systems. ☐
 - IF Fire Service system is not operable, **THEN** EVALUATE alternative methods of fire service in Attachment 5, Alternative Sources of Fire Service Water N/A ☐ ☐
 6. EVALUATE operational needs and response based on:
 - Location of the fire and facilities involved ☐
 - Size of area involved ☐
 - Number and type of injuries/casualties ☐
 - Access routes for emergency vehicles ☐
 7. AUTHORIZE immediate actions according to safety and emergency operation procedures including:
 - on-site treatment of the injured ☐
 - occupancy status of the buildings ☐
 - relocating on-site employees, contractors, and visitors away from dangers and hazards ☐
 8. DETERMINE what tactical branches need to be activated ☐

INCIDENT COMMANDER CHECKLIST

9. DETERMINE if a request for Urban Search and Rescue (USAR) is necessary ☐
10. DETERMINE what staff resources are immediately available **AND** REQUEST appropriate personnel and equipment resources needed for control of the incident ☐
11. DETERMINE the need for a Medical Staging and Treatment Area and location ☐
12. COORDINATE assessments regarding safety and initial damage inspections of affected areas ☐
13. NOTIFY Security Officer(s) at the Primary Staging area to send equipment and personnel needed to the Incident Command Post ☐
14. COORDINATE with the Fire Team Leader and the TSC to identity priorities for further inspections, repairs, service restoration, and facility restoration ☐
15. PROVIDE briefings to teams ☐
16. EVALUATE structural integrity prior to entering structures ☐
17. MAINTAIN accountability of Attack Teams ☐
18. EVALUATE the requests to re-enter buildings and coordinate with Security ☐
19. IF fire is of a magnitude that may require fire fighting activities to exist greater than 12 hours, **THEN** NOTIFY TSC to use State and Federal assistance to provide fire fighting support from MacDill Air Force Base or other specialized fire fighting companies N/A ☐ ☐

INCIDENT COMMANDER CHECKLIST

20. ENSURE traffic control is established to provide access for emergency vehicles **AND** LIMIT entry to access road at Highway 19 ☐
21. CONTACT County **AND** REQUEST portable SCBA compressor be brought to staging area determined by Incident Commander..... ☐
22. IF possible, **THEN** PAIR-UP offsite resources with plant-knowledgeable-personnel when sending personnel inside structures N/A ☐ ☐

NOTE: The TSC may request the use of firefighting equipment to reduce radiation releases. This should be considered a secondary function to fire fighting and will be implemented when equipment and personnel are available. ☐

23. IF the TSC requests the use of firefighting equipment to reduce radiation releases, **THEN** Incident Commander PERFORM the following: N/A ☐ ☐
- a. EVALUATE personnel and equipment resources available for support based on expected progress fighting the fire..... ☐
- b. NOTIFY TSC of personnel and resource availability and expected time when personnel and equipment will be available ☐

NOTES: Twenty (20) additional (dedicated) radios and spare batteries are located and maintained within the EOF (Room 147) and are available for rapid issuance. ☐

The EOF requires key card access and Room 147 is normally locked. ☐

Any individual dispatched should at a minimum have key card access to the EOF and additional communications to personnel with offices at the EOF may be required to obtain keys to EOF Room 147. ☐

Radios may be distributed as determined by the Incident Commander. ☐

24. IF additional radios are needed, **THEN** PERFORM the following:
- a. Incident Commander DISPATCH an individual to the EOF to obtain extra radios. ☐

NOTE: The radios are part of the Citrus County Sheriff's Office 800 MHz radio system and are preset to call group "1A-CR3 Maint" (Radio Zone selector "A" channel selector 8). ☐

- b. Incident Commander DETERMINE how radios will be distributed **AND** ARRANGE for distribution. ☐

FIRE TEAM LEADER CHECKLIST

1. CONTACT Incident Commander if the Fire Brigade is staged away from the Site Administration Building. ☐
2. VERIFY with the Incident Commander that the Fire Brigade is prepared for re-entry ☐
3. IF communications with Main Control Room are available, THEN PERFORM the following:..... N/A ☐ ☐
 - NOTIFY Main Control Room that Fire Brigade will re-enter the Protected Area for scene size-up ☐
 - OBTAIN Plant status:
 - Method of Core Cooling ☐
 - Release in effect? ☐
 - Fire Service Pumps operating?..... ☐
 - ES power available? ☐
 - Offsite power available? ☐
4. ENSURE Incident Commander is updated on plant areas where Fire Protection is needed to protect equipment being relied upon for core cooling ☐
5. ENSURE Incident Commander is updated on potential or ongoing release paths that may impact fire fighting activities ☐
6. DETERMINE which areas Security has cordoned off ☐
7. DETERMINE what utilities have been lost ☐

EC/EC DESIGNEE CHECKLIST

1. **WHEN** the TSC is operational, **THEN CONTACT** Incident Commander via radio **AND OBTAIN** status ☐
2. **ASSUME** responsibility for acquiring additional equipment/personnel as needed to support the Incident Commander **AND REFER** to the Offsite Support Directory..... ☐
3. **DETERMINE** the following:
 - a. Whether air space has become a Temporary Flight Restriction (TFR) area. ☐
 - b. Appropriate landing zone(s) as necessary ☐

NOTE: Fire Brigade radio communications will be on Channel 7 or appropriate talk group.

4. **ASSIGN** person to monitor radio to ensure communication with the Incident Commander is maintained ☐
5. **REQUEST** additional foam to area designated by Incident Commander. **REFER** to table for foam locations on site ☐

Location	Foam Type	Cat ID #
CR3 Warehouse	F-500	9220097539
Fossil Flam Chem Building	Fuel Buster (5 gal container)	9220106916
Fossil Flam Chem Building	Fuel Buster (55 gal container)	9220106915

6. **UPDATE** Incident Commander on releases to the environment ☐
7. **UPDATE** Fire Team Leader on core cooling methods or any expected changes in required equipment ☐
8. **PERFORM** the following:
 - a. **DETERMINE** the need for site food, water and other personnel support for response teams for extended operational periods. ☐
 - b. **COORDINATE** with Citrus County Fire Rescue ☐

ALTERNATIVE METHODS OF FIRE SERVICE WATER

1.0 Use of CR 1/2 Fire Service Water to Feed CR3 Header

1. IF CR 1/2 Fire Service Water will be used, **THEN PERFORM** the following: N/A ☐ ☐
 - a. ISOLATE damaged sections of CR3 Fire Service header ☐
 - b. OPEN FSV-600 to align CR1/2 Fire Service System to CR3 header (West of FST-1A & 1B, Outside Fence at Units 1 & 2) ☐
 - c. WALK DOWN CR3 header for leaks and isolate sections as necessary ☐

2.0 Use of CR 4/5 Fire Service Water to Feed CR3 Header

NOTE: This method cross ties CR 4/5 Fire Service header with CR 1/2 Fire Service Header ☐

1. IF CR 4/5 Fire Service Water will be used, **THEN PERFORM** the following: N/A ☐ ☐
 - a. ISOLATE damaged sections of CR3 Fire Service header ☐
 - b. OBTAIN key from Incident Commander for locks on Site Fire Service Valves ☐
 - c. UNLOCK **AND** OPEN isolation valve next to FPA 4150. The valve is north of the walk way to SAB next to the coal conveyor ☐
 - d. UNLOCK **AND** OPEN Post Indicating valve located south of Hydrant 35, next to coal conveyor south of the access road ☐
 - e. OPEN FSV-600 to connect CR 1/2 header with CR3 (West of FST-1A & 1B, Outside Fence at Units 1 & 2) ☐

NOTE: AAG-10 contains guidance for isolating CR3 Fire Service systems ☐

- f. WALK DOWN CR3 header for leaks ☐
 - IF header leaks are identified, **THEN ISOLATE** sections as necessary N/A ☐ ☐

ALTERNATIVE METHODS OF FIRE SERVICE WATER

3.0 CR3 Fire Service Header Unavailable

1. IF CR3 Fire Service Header Unavailable, THEN PERFORM the following: N/A ☐ ☐
 - a. EVALUATE use of FH-20 and FH-22 hydrants (located east of Protected Area by CR3 warehouses) ☐
 - b. NOTIFY Security that hose will have to be run through the fence and security perimeter ☐

NOTE: Be sure to protect hose from damage when going through fence or other obstacles ☐

- c. ROUTE supply hose from hydrant into CR3 Protected area ☐
- d. WHEN hooked up and routed to desired location, THEN OPEN hydrant isolation valve ☐

4.0 Use of Offsite Pumper Trucks for Fire Service Water

NOTE: Multiple trucks will be required for this method ☐

1. IF Offsite Pumper Trucks will be used for Fire Service Water, THEN PERFORM the following: N/A ☐ ☐
 - a. SETUP first truck to take suction from either the intake or discharge canal ☐

NOTE: Be sure to protect hose from damage when going through fence or other obstacles ☐

- b. NOTIFY Security that hose will be run through the fence and security perimeter ☐
- c. SETUP a second truck on the berm as the supply source for fire fighting ☐
- d. CONNECT trucks in series to ensure adequate head for fire fighting ☐
- e. IF additional water OR access to different areas of the plant is needed, THEN REQUEST additional trucks AND CONNECT in series N/A ☐ ☐

Summary of Changes

PRR 570012

NOTES: Writers and Reviewers: Ensure any changes to this procedure that affect information contained in Emergency Response Facility posters, enclosures, briefing cards, guidelines etc. are made to those items as well.

Writers and Reviewers: Changes to certain parts of this procedure may impact other Emergency Plan Implementing Procedures.

SECTION/STEP	CHANGE
9.1.3.b Page 6 of 18	Per EC 84174, changed radio channel reference to "Channel 7 or appropriate talk group."
Attachment 4 Note prior to Step 4 Page 15 of 18	Per EC 84174, deleted channel number reference and replaced it with "Channel 7 or appropriate talk group."

#1242



R
Reference
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PROGRESS ENERGY
CRYSTAL RIVER UNIT 3
PLANT OPERATING MANUAL

EM-913A

**LARGE AREA FIRE RESULTING IN LOSS OF CONTROL ROOM
COMMAND AND CONTROL FUNCTIONS**

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CAUTION

Application of the provisions of 10 CFR 50.54 X and Y will be required for implementation of some guidance of this procedure. If the IMPLEMENTING OPERATIONS REPRESENTATIVE does not meet the minimum qualification to apply the standards of 10 CFR 50.54 X and Y, a review of the applicability of the provisions of these standards should be conducted by a qualified member of the Emergency Response Organization once that organization is operational.

NOTE

During an actual event, this procedure may be started at Section 4.0, INSTRUCTIONS to ensure timely response to plant conditions. Sections 1, 2 and 3 may be referenced as needed.

1.0 PURPOSE [NOCS 100521]

This procedure provides instructions and guidelines used by the STA or available operator with the highest qualification (SM, CRS, STA, CNO) for a large area fire preventing operation from the Control Room and Remote Shutdown Panel, including a potential total loss of unit power (AC and DC).

This procedure is intended to provide a bridge between the normal CR-3 operational command and control structure and the command and control structure that is provided once the Emergency Response Organization is operational.

This procedure should be used as an aid in making necessary decisions to combat a severe accident involving beyond design basis conditions and is intended to implement the strategies required per the Initial Response Extensive Damage Mitigation Guideline (EDMG) as outlined by NEI 06-12, B.5.b Phase 2 & 3 Submittal Guideline.

This procedure is an Emergency Plan implementing procedure. Any revisions must be carefully considered for Emergency Plan impact.

2.0 REFERENCES

2.1 Developmental References

- 2.1.1 NEI 06-12, B.5.b Phase 2 & 3 Submittal Guideline
- 2.1.2 EM-911, Security Threats
- 2.1.3 EM-913, Integrated Response For A Large Area Fire
- 2.1.4 NRC Order B.5.b
- 2.1.5 EM-102, Operation of the Technical Support Center

3.0 PERSONNEL INDOCTRINATION

3.1 Definitions

- 3.1.1 **Visible Damage** – Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example system/component damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering due to fire. Example structural damage includes: exposed and/or broken rebar, failed supports/pipe hangers, etc. Surface blemishing (e.g., paint chipping, scratches, concrete spalling) should NOT be included.
- 3.1.2 **Remote TSC** – An area of the EOF designated for TSC operations during events where neither the TSC nor alternate TSC is available/appropriate for use.
- 3.1.3 **Implementing Operations Representative** – The available member of the Operations Department with highest qualifications (SM, CRS, STA, CNO) responsible for directing the actions of this procedure. Typically the STA when SRO personnel staffing the Main Control Room become unavailable.

3.2 Responsibilities

- 3.2.1 Security activates the Emergency Response Organization and implements evacuation of the Crystal River Energy Complex based on requests from the IMPLEMENTING OPERATIONS REPRESENTATIVE or Security contingency plan.
- 3.2.2 Upon recognition of conditions requiring implementation of this procedure all available Operations Department personnel will muster at the TSC unless directed to an alternate location by the IMPLEMENTING OPERATIONS REPRESENTATIVE.
- 3.2.3 Available operations personnel perform the required assessment of available communication methods and the initial evaluation of visible damage to the site.
- 3.2.4 Available operations personnel perform the initial actions of ensuring the Rx is shutdown and EFW flow exists.

NOTE

The doors leading into the Main TSC room, Communications room and NRC room are normally locked. Doors can be opened with a standard P-key. Keys to these doors are maintained by Security and in the TSC Dosimetry room

- 3.2.5 The IMPLEMENTING OPERATIONS REPRESENTATIVE will muster all available Operations personnel at the TSC (preferred) or SAB and assume the command and control responsibilities of the Main Control Room staff including interface with Security, the Emergency Response Coordinator, and select off-site organizations.

3.3 Limits and Precautions

- 3.3.1 For those conditions requiring use of this procedure the IMPLEMENTING OPERATIONS REPRESENTATIVE will coordinate with Security to determine the safe actions for plant personnel. This may include delaying the site evacuation or staffing of emergency facilities until it is safe to do so. This will include use of alternate emergency facilities (SAB / REMOTE TSC).
- 3.3.2 The conditions requiring use of this procedure present unique challenges to protecting the health and safety of the public and plant staff (unavailability of normal command and control structure, loss of key parameter monitoring capability, etc.). Normal emergency response procedure steps may be hindered or inappropriate due to the nature of the on-going event.
- 3.3.3 The preferred location for directing actions of this procedure is the TSC until the ERO staff and facility are operational. Specific plant conditions may warrant selection of an alternate location of command and control for this event (i.e. SAB or NSOC).
- 3.3.4 If radio repeaters are lost, radios will work in outside areas but may fail to work inside buildings.
- 3.3.5 Plant radio channels 7, FOS 1-2, and FOS 4-5 are supported by a separate (offsite) repeater and should be functional inside the CR3 Protected Area during loss of the normal radio repeater. Security personnel will use appropriate talk groups or backup communications during a loss of the normal repeater.

4.0 INSTRUCTIONS

NOTE

Enclosure 1, Simplified Diagram of EM-913A Mitigation Actions can be used to streamline the actions that are required to manage the situation.

NOTE

Enclosure 5, Assessment of Communication Equipment Status contains a status of potential communication losses based on the damaged area.

4.1 Initial Response

- 4.1.1 IF communications can be established with personnel in the Main Control Room AND sufficient resources exist to conduct Command and Control functions from the Main Control Room, THEN EXIT this procedure
- 4.1.2 Muster available individuals to an unaffected area of the plant to determine available resources. The TSC is preferred based on available resources and communication systems.
- 4.1.3 ESTABLISH command and control of the available resources.
- 4.1.4 CONSIDER requesting Security resources to escort personnel to task performance areas.
- 4.1.5 IF safe access to 95' TB exists,
THEN direct an available operator to ensure open the following breakers.
 - 480V Reactor Auxiliary Bus 3A, Breaker 2D (A CRD Power Supply) (95' TB)
 - 480V Plant Auxiliary Bus, Breaker 3B (B CRD Power Supply) (95' TB)
- 4.1.6 VERIFY Reactor Trip
 - Groups 1-7 Control Rod Indication Panel Rod Bottom Lights (124' CC CRD Room)
- 4.1.7 ENSURE EFW is operating and feeding the OTSGs [NOCS 100524]
 - DIRECT available operator to CONCURRENTLY PERFORM
Enclosure 2, EFW Initiation and Control

4.2 Activate Emergency Response Organization

NOTE

Initial communication with Security Shift Captain may be established via Face-to-Face, Security Radio, Telephone (3132 (CAS) or 3336 (SAS)), or Security Cellular Telephone (7459)

NOTE

Details for activation of the ERO are located in EM-206, Emergency Plan Roster Notification.

4.2.1. NOTIFY Security to ensure the following groups are activated or notified:

- Activate ERO and direct ERO to muster at the REMOTE TSC (EOF). The Emergency Response Organization Notification System shall be used to activate the Emergency Response Organization
- Notify local Law Enforcement Agency
- Notify local Fire Department.

4.2.2. IF Security is unable to support ERO call-out, THEN the IMPLEMENTING OPERATIONS REPRESENTATIVE should ensure this function is performed from the TSC.

CAUTION

Application of the provisions of 10 CFR 50.54 X and Y will be required for implementation of some guidance of this procedure. If the IMPLEMENTING OPERATIONS REPRESENTATIVE does not meet the minimum qualification to apply the standards of 10 CFR 50.54 X and Y, a review of the applicability of the provisions of these standards should be conducted by a qualified member of the Emergency Response Organization once that organization is operational.

4.2.3. AUTHORIZE the Security Shift Captain to suspend normal site access restrictions for incoming support. (10CFR 50.54 X & Y)

4.2.4. ESTABLISH on-going communications with Security Shift Captain using available communication methods.

4.3 Determine Initial Plant Status

4.3.1 Direct an available individual to perform Enclosure 3, Initial Damage Assessment of Key Structures.

4.4 Perform Abbreviated Notifications (As Conditions Permit)

NOTE

A detailed floor plan of the TSC, showing the location of key communication systems, is displayed on Enclosure 1 of EM-102, Operation of the Technical Support Center.

NOTE

Details of communication protocol in step 4.4.2 should be reviewed concurrent with establishing communications in step 4.4.1

4.4.1. NOTIFY State Watch Office (SWO).

- Establish communication with the State Watch Office using any of the methods listed below.
 - State Hot Ringdown (SHRD) - Station 120 or 121 (TSC Communications Room)
 - Commercial Telephone System - 1-850-413-9911 or 1-800-320-0519 or 1-850-413-9900
 - Emergency Management Network - (EMnet) (TSC Communications Room)
 - Portable Satellite Phone (Located in Main TSC room cabinet)

4.4.2. PERFORM initial State Watch Office notification using the following standard format:

- "This is an abbreviated notification of a General Emergency. CR-3 is experiencing an on-going security related large area fire causing an extended loss of normal and alternate plant control facilities."
- State your name

4.4.3. Call may be terminated.

NOTE

Details of communication protocol in step 4.4.5 should be reviewed concurrent with establishing communications in step 4.4.4

- 4.4.4. NOTIFY NRC via ENS
(located in Accident Assessment Team Room of TSC and NRC work space).
- IF ENS is unavailable,
THEN communications may be established via commercial telephone at:
1-301-816-5100
OR
1-301-951-0550
OR
1-301-415-0550
OR
1-301-415-0553
 - IF ENS
AND commercial phones are unavailable,
THEN communications may be established using the Portable Satellite Phone
(Located in Main TSC room, Main TSC Room cabinet at TSC).
- 4.4.5. PERFORM initial NRC notification using the following standard format:
- "This is an abbreviated notification of a General Emergency. CR-3 is experiencing an on-going security related large area fire causing an extended loss of normal and alternate plant control facilities."
 - State your name
 - IF an Authentication Code is required
AND is NOT available,
THEN request NRC verification of authenticity by call-back OR call to local law enforcement.
- 4.4.6. Call may be terminated.

4.5 Determine Communication Status

- 4.5.1 Refer to Enclosure 5 to determine the potential impact of damage on plant communication methods and obtain a list of alternate communication options.

4.6 Conduct Detailed Plant Status Assessment

CAUTION

If personnel are available, 2 person teams should be used to enhance personnel safety while performing the Detailed Damage Assessment of Key Structures.

CAUTION

Personnel performing the Detailed Damage Assessment should obtain emergency dosimetry (EDs pre-set to EOP setpoints) prior to the assessment. This dosimetry is located in emergency kits at the OSC.

NOTE

Damage that is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component should be noted.

- 4.6.1 DIRECT available personnel to perform Enclosure 4, Detailed Damage Assessment of Key Structures.
- 4.6.2 IF access to structures is determined to be restricted, THEN document alternate access paths, if available.
- 4.6.3 DETERMINE status of structures, systems, or components whose functionality or integrity has been lost or is in doubt due to damage.

4.7 Coordinate with Emergency Response Coordinator on Subsequent Actions

NOTE

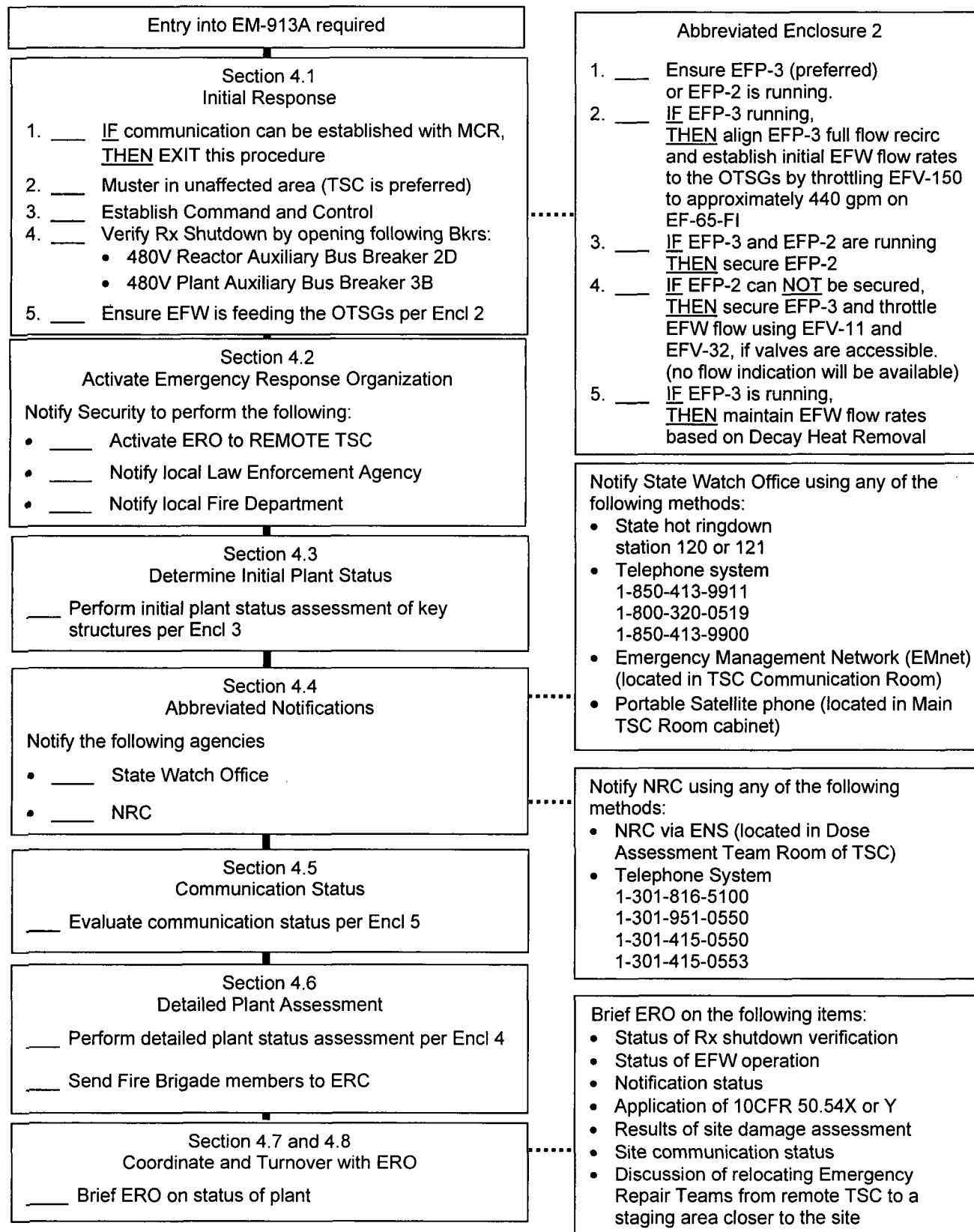
Initial communication with the Emergency Response Coordinator may be established via Face-to-Face, Plant Radio (Channel 7), appropriate talk groups, or Plant Phone (*4655) - *Note this number forwards to On Duty ERC.

- 4.7.1 ESTABLISH communications with ERC.
- 4.7.2 ENSURE the ERC is made aware of the following unique condition requiring implementation of this procedure:
 - The normal Fire Team Leader and Operations Department members of the Fire Brigade may be unavailable until the ERO is in place and operational.
- 4.7.3 Coordinate available actions with ERC until ERO is activated AND has assumed the Command and Control function.

4.8 Turnover to ERO

- 4.8.1 Brief the Emergency Coordinator on plant status using information from Enclosures 3, 4 and 5. This briefing should include the following items:
 - Status of the Rx shutdown verification
 - Status of EFW operation
 - Notification status (State Watch Office, NRC, ERC)
 - Whether 10 CFR 50.54(x)(y) has been invoked
 - Results of site damage assessment
 - Site communication system status
 - Discussion of relocating the Emergency Repair Team from the REMOTE TSC to a staging area closer to the site.
- 4.8.2 Implement additional actions as directed by TSC ERO and EXIT this procedure

Simplified Diagram of EM-913A Mitigation Actions [NOCS 100521, 100524]



EFW INITIATION AND CONTROL [NOCS 100524]

ACTIONS

DETAILS

NOTE

The largest challenges to maintaining core cooling are lack of instrumentation to determine levels, flows and temperatures, lack of RCS makeup and plant accessibility.

NOTE

EFP-3 is self sufficient but will NOT auto start on loss of station DC power.

- 2.1 ☐ Obtain a BEST Lock master P Key.
- ☐ BEST Lock Master key is located in the TSC above the light switch in the Dosimetry Room (SW Corner of TSC) labeled "TSC".

- 2.2 ☐ Ensure EFP-3 is running.
- Ensure EFP-3 is running:
- ☐ EFP-3 can be verified by using local RPM (> 815 rpm).
 - ☐ EFP-3 can be started locally using the START pushbutton on EFCP-1 (located on EFP-3 bldg upper floor)

☐ IF EFP-3 is not available,
THEN ensure EFP-2 is running.

Ensure EFP-2 is running:

- ☐ Ensure ASV-5 or ASV-204 are Open (If Accessible).
- ☐ EFP-2 can be verified by using local discharge PRESS or steam flow thru the Intermediate bldg roof (> 1050 psig post Rx trip).

- 2.3 ☐ IF EFP-3 is running,
THEN Align EFP-3 full flow Recirc.
1. ☐ Unlock and Open EFV-151 (N. Wall EFP-3 Bldg).
 2. ☐ Open EFV-148 (N. Wall EFP-3 Bldg)

2.0 ACTIONS (CONT'D)

ACTIONS	DETAILS
<p style="text-align: center;"><u>NOTE</u></p> <ul style="list-style-type: none"> • This strategy assumes EFW control valves are failed open due to the loss of DC power. • This strategy assumes the EFW block valves are open based on their normally open position and the loss of DC power. • OTSGs will <u>NOT</u> be able to remove adequate Decay Heat if they become water solid. • The preferred method of controlling EFP-3 flow to the OTSGs is using EFV-150 	

2.4 ____ Ensure Initial EFW flow rates.

Preferred EFW flow control method

- ____ IF EFP-3 is running,
THEN unlock and throttle EFV-150 to obtain desired Recirc flow rates on EF-65-FI (W. Wall EFP-3) per Table following step 2.6 of this Enclosure.

Alternate EFW flow control methods

- ____ IF EFP-3 is running,
AND EFV-Block valves are accessible,
THEN flow may be Throttled using EFV-14 and EFV-33 but no EFW flow indication will exist.
- ____ IF EFP-2 is running,
AND EFV-Block valves are accessible,
THEN flow may be Throttled using EFV-11 and EFV-32 but no EFW flow indication will exist.

2.0 ACTIONS (CONT'D)

ACTIONS	DETAILS
<p>2.5 <u>IF</u> EFP-3 and EFP-2 are running, <u>THEN</u> secure EFP-2. (if Accessible)</p> <p> <u>IF</u> EFP-2 can <u>NOT</u> be secured, <u>THEN</u> secure EFP-3.</p>	<ul style="list-style-type: none"> • EFP-2 can be verified by using local discharge PRESS or steam flow thru the Intermediate bldg roof. • EFP-2 can be locally secured by performing the steps: <ul style="list-style-type: none"> • Trip ASV-50 (EFP-2) • Close MSV-55 and MSV-56 (119 Intermediate Bldg)
<p>2.6 <u>IF</u> EFP-3 is running, <u>THEN</u> maintain EFW flow rates based on Decay Heat Removal.</p>	<ul style="list-style-type: none"> • Refer to EFW flow / EFP-3 Recirc requirements post trip listed below

EFP-3 Recirculation Flow Rates Post Trip

Time post-shutdown (minutes)	Required Flow to OTSGs (gpm)	Corresponding Indicated Recirculation Flow (EF-65-FI) (gpm)
15	307	443
30	258	492
45	231	519
60	210	540
75	196	554
90	187	563
105	179	571
120	170	580
135	162	588
150	158	592
165	154	596
180	151	599
195	149	601
210	147	603
225	144	606
240	142	608

- EFP-3 cavitating venturi limits total EFP-3 flow to approximately 750 gpm at all OTSG pressures
- EFP-3 full flow recirc diverts flow to EFT-2 downstream of the cavitating venturi (i.e. 750 gpm – full flow recirc = flow to OTSGs)
- EFW flow requirements do not change appreciably based on EFPD for the time frame analyzed.
- Reference ECED 63123

INITIAL DAMAGE ASSESSMENT OF KEY STRUCTURES

NOTE

The initial damage assessment is a high level evaluation done without requiring approach or entry into structures. This assessment is intended to be a quick determination of the extent of damage, noting obvious restrictions to normal access to these structures or use of these facilities

Structure	Visible Damage	Accessibility
NAB		
TSC/PAB		
Turbine Building		
119' Intermediate Building		
Control Complex		
Auxiliary Building		
Fire Pump House		
EFP-3 Building		
Fire Service Tanks (FST-1A/1B)		
Emergency. Feed Tank (EFT-2)		
BWST		
Containment Bldg		
Intake Structure		

DETAILED DAMAGE ASSESSMENT OF KEY STRUCTURES

NOTE

Damage that is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component should be noted.

Building	Elevation	Visible Damage	Accessibility	Equipment Status/System Integrity
Turbine	95			
	119'			
	145'			
	162'			
Control Complex	95'			
	108'			

DETAILED DAMAGE ASSESSMENT OF KEY STRUCTURES

Building	Elevation	Visible Damage	Accessibility	Equipment Status/System Integrity
Control Complex	134'			
	145'			
	164'			
Auxiliary	95' DH Vaults			
	119'			
	145'			
	162'			

DETAILED DAMAGE ASSESSMENT OF KEY STRUCTURES

Building	Elevation	Visible Damage	Accessibility	Equipment Status/System Integrity
Fire Pump House				
Fire Service Tanks				
EFP-3 Building				
BWST				
Emergency Feedwater Tank (EFT-2)				
TSC/PAB				
NAB				
Intake Structure				

ASSESSMENT OF COMMUNICATION EQUIPMENT STATUS [NOCS 100521]

Communication Method(s)	Plant area(s) with potential Impact	Potential impact of damage	Potential alternate communication path.	Misc. Information
Plant Radio Security Radio	1. Electrical Distribution Network	Loss of repeater for normal channels	1. Channels 7, FOS 1-2 and FOS 4-5 via off-site repeater 2. County Radio System 3. Limited availability of normal plant radio channels primarily outside of plant buildings.	1. Plant Radio monitored by Emergency Response Coordinator 2. County radio base station located in TSC. County radio available to Security and ERC. Extra County radios / batteries located at EOF.
Plant Land Line Phone	NAB	Loss of internal and external lines.	Cell Phone Network	PAX 3 digit extension capability may be available if power remains available.
Cell Phone	None	None	N/A	Cell phone network is independent of plant structures within the protected area and should remain available.
Emergency Response Organization Notification System	NAB	Normal System unavailable from TSC or SAS.	1. Actuation of "Auto-Dialer" via cell phone network 2. System actuation from EOF 3. Individual call out via cell phone network.	1. Emergency Response Organization Notification System may be actuated from SAS, TSC, or EOF. 2. Guidance for ERO activation is contained in EM-206, Emergency Plan Roster Notification
State Hot Ringdown System	NAB	Ringdown system unavailable.	1. Cell Phone Network 2. Portable Satellite Phone (TSC) 3. SHRD from EOF	Portable Satellite Phone (Main TSC Room and cabinet).
Emergency Notification System (ENS-NRC link)	NAB	ENS system unavailable	1. Cell Phone Network 2. Portable Satellite Phone (TSC) 3. ENS from EOF	Portable Satellite Phone (Main TSC Room and cabinet).
Emergency Management Network (EMnet)	NAB	EMnet unavailable	1. Cell Phone Network 2. Portable Satellite Phone (TSC)	Portable Satellite Phone (Main TSC Room and cabinet).
Portable Satellite Phone	None	None	N/A	1. Located in Main TSC Room and cabinet. 2. Instructions for setup and use are provided with this unit.

Summary of Changes

PRR 570014

NOTE

Writers and Reviewers: Ensure any changes to this procedure that affect information contained in ERF posters, enclosures, briefing cards, guidelines etc. are made to those items as well.

NOTE

Writers and Reviewers: Changes to certain parts of this procedure may impact other EIPs. Examples include changes to the Off-Site Support Directory for telephone numbers, EM-202, Enclosure 2, page 3 and EM-400, Enclosure 3, page 3

SECTION	CHANGE
3.3.5 Page 5 of 21	Per EC84174, Install New Plant Radio System, Added channel numbers "7, FOS 1-2, and FOS 4-5" and "appropriate talk groups" to Step 3.3.5.
Note prior to 4.7.1 Page 11 of 21	Add " appropriate talk groups," per EC 84174, Install New Plant Radio System. Radios are assigned and programmed to cover specific talk groups in addition to Channel 7.
Enclosure 5 First Row of Table for Plant Radio Page 20 of 21	Deleted "Channels 1, 3, 5" and replaced with FOS 1-2 and FOS 4-5" as an alternative communications path, and deleted "Security channel 16 will be functional"